Tackling Inequalities in Brazil, China, India and South Africa

THE ROLE OF LABOUR MARKET AND SOCIAL POLICIES



OECD

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Foreword

Greater integration into the world economy has allowed emerging economies to move to a higher and more sustainable growth path, with often impressive results in terms of economic growth, social development and poverty reduction. But the benefits of stronger growth have not always been shared equally across different socio-demographic groups, and income inequality has often increased within these countries. The current global economic crisis and its negative impact on unemployment and underemployment have exacerbated this problem and may seriously compromise past efforts to reduce chronic poverty.

Strong economic growth in Brazil, China, India and South Africa over the past decade has translated into strong job creation and more labour mobility. Many workers have been able to seize better job opportunities emerging in the formal sector, but others have remained trapped in often low-paid and unstable informal jobs. These disparities in employment opportunities, coupled with the limited coverage of social protection, have been associated with persistently high earnings and income inequalities. Moreover, in a segmented labour market it is difficult for the tax and benefit systems to redistribute resources.

The experiences of the four emerging economies reviewed in the volume have, however, been very diverse. Brazil, for example managed to foster economic growth while, at the same time reduce income inequality, albeit from very high levels. High and often persistent income inequality raises a number of policy questions. While changes in labour market conditions, together with changes in household structures, explain a great deal of inequality trends, the role of labour market and social policies is key in shaping the final distribution of economic resources.

With the financial support of the European Union Directorate-General for Employment, Social Affairs and Equal Opportunities, the OECD's Directorate for Employment, Labour and Social Affairs organised a high-level conference on "Inequalities in Emerging Economies: What Role for Labour Market and Social Policies?", with a focus on Brazil, China, India and South Africa, held in Paris on 19 May 2010.

This publication includes the conference papers written by experts from the four countries in question: Marcelo Cortes Neri, from *Fundacao Getulio Vargas* at the Brazilian Centre for Social Policies; Du Yang, from the Institute of Population and Labour Economics of the Chinese Academy of Sciences; Dipak Mazumdar, from the University of Toronto and the Institute for Indian Development; and Murray Leibbrandt, from the South Africa Labour and Development Research Unit at the University of Cape Town. These papers deal with a number of complementary themes, focusing on the individual country experiences: *a)* the main trends and factors of income inequality; *b)* the links between labour market outcomes, poverty and inequality; *c)* the role of labour

market institutions, regulations and policies; and *d)* the impact of social policies on poverty and the income distribution.

The first and last chapters have been written by Elena Arnal and Michael Förster of the OECD, with statistical assistance from Dana Blumin and discuss these issues from a comparative perspective. The overall project has been supervised by Stefano Scarpetta and Monika Queisser.

The discussion at the conference and this publication provide a solid foundation for further co-operation between the OECD and Brazil, China, India and South Africa.

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Acronyms and abbreviations

ADB	Asian Development Bank
APCE	Average Per Capita Expenditure of Households (India)
ASGISA	Accelerated and Shared Growth Initiative for South Africa
BCEA	Basic Conditions of Employment Act (South Africa)
BCIS	Brazil, China, India and South Africa
BPC	*Beneficio de Prestação Continuada* (Brazilian Social Assistance Pension)
BRL	Brazilian Reais
CASS	Chinese Academy of Social Science
CBM	Community-based Insurance Schemes (India)
CBP	Community-based Public Works Programme (South Africa)
CCM	Commission for Conciliation, Mediation and Arbitration (South Africa)
CCT	Conditional Cash Transfer
CEPALCLT	*Consolidação das Leis do Trabalho* (Brazil)
CNY	Chinese Yuan
COSATU	Congress of South African Trade Unions
CPS/FVG	Centre for Social Policies at Fundação Getulio Vargas (Brazil)
CULS	Chinese Urban Labour Survey
DME	Directory Manufacturing Establishments (India)
ECC	Employment Conditions Commission (South Africa)
EITC	Earned Income Tax Credit
EPFO	Employees Provident Fund Organisation (India)
EPL	Employment Protection Legislation
EPWP	Expanded Public Works Programme (South Africa)
ESI	Employees' State Insurance (India)
FAT	*Fundo de Amparo ao Trabalhador* (Brazil)
FDI	Foreign direct investment
FEDUSA	Federation of Trade Unions of South Africa
FGTS	*Fundo de Garantia por Tempo de Serviço* (Brazil)
FUNDEB	*Fundo de Manutençao e Desenvolvimento da Educaçao Basica* (Brazilian Fund for Basic Education)
FUNDEF	*Fundo para Manutenção e Desenvolvimento do Ensino Fundamental e Valorização do Magistério* (Brazilian Fund for Primary Education and for the Enhancement of Teachers)
GDP	Gross Domestic Product
IADB	Inter-American Development Bank
IBGE	Brazilian Institute for Geography and Statistics
IDEB	Basic Education Development Index (Brazil)
IES	Income and Expenditure Survey (South Africa)
IGNOAPS	Indira Gandhi National Old Age Pension Scheme (India)

ILO	International Labour Office
INR	Indian Rupees
INSS	*Instituto Nacional do Seguro Social* (Brazil)
IPEA	*Instituto de Pesquisa Econômica Aplicada* (Brazilian Institute for Applied Economic Research)
IRDP	Integrated Rural Development Programmes (India)
IUSAs	Individual Unemployment Saving Accounts
LFS	Labour Force Survey
LRA	Labour Relations Act (South Africa)
MDGs	UN Millennium Development Goals
MLSS	Minimum Living Standard Scheme (China)
MPCE	Monthly per capita income level (India)
NACTU	National Council of Trade Unions (South Africa)
NBS	National Bureau of Statistics (China)
NCMS	New Co-operative Medical System (China)
NFFWP	National Food for Work Programme (India)
NIDS	National Income Dynamics Study (South Africa)
NAS	National Accounts Survey (India)
NBMS	National Maternity Benefit Scheme (India)
NCEUS	National Commission for Enterprises in the Unorganised Sector (India)
NEDLAC	National Economic Development and Labour Council (South Africa)
NFBS	National Family Benefit Scheme (India)
NMBS	National Maternity Benefit Scheme (India)
NOAPS	National Old Age Pension Scheme (India)
NPWP	National Public Works Programmes (South Africa)
NREGA	National Rural Employment Guarantee Act (India)
NREGS	National Rural Employment Guarantee Scheme (India)
NSS	National Sample Survey (India)
PAF	Poverty Alleviation Funds (India)
PASEP	*Programa de Formação do Patrimônio do Servidor Público* (Brazil)
PAYG	Pay-As-You-Go
PDE	Education Development Plan (Brazil)
PDS	[Food] Public Distribution System (India)
PETI	*Programa de Erradicação do Trabalho Infantil* (Brazil)
PHDI	Perceived Human Development Index
PIS	*Programa de Integração Social* (Brazil)
PLSD	Project on Living Standards and Development (South Africa)
PME	*Pesquisa Mensal d'Emprego* (Brazil)
PNAD	*Pesquisa per Amostra de Domicilios* (Brazil)
PPPs	Purchasing Power Parities
PSLSD	Project for Statistics on Living Standards and Development (South Africa)
RHS	Rural Household Survey (China)
SALDRU	Southern Africa Labour and Development Research Unit
SALFS	South African Labour Flexibility Survey
SEBRAE	*Serviço Brasileiro de Apoio as Micro e Pequenas Empresas* (Brazilian Service of Support for Micro and Small Enterprises)
SENAC	*Serviço Nacional de Aprendizagem Comercial* (Brazilian National Commercial Training Service)

SENAI	*Serviço Nacional de Aprendizagem Industrial* (Brazilian National Industrial Training Service)
SESC	*Serviço Social do Comercio* (Brazilian National Department for Commerce)
SESI	*Serviço Social da Indústria* (Brazilian National Department for Industrial Social Service)
SETAs	Sectoral Education Training Authorities (South Africa)
SOEs	State-owned Enterprises
TPDS	Targeted Public Distribution System (India)
TVEs	Town Village Enterprises (China)
UHS	Urban Household Survey (China)
UI	Unemployment Insurance
UIF	Unemployment Insurance Fund (South Africa)
UPS	Usual Principal Status (India)
ZAR	South African Rands

Chapter 1

Growth, employment and inequality in Brazil, China, India and South Africa: An overview

by

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During the past two decades, Brazil, China, India and South Africa have experienced sustained economic growth, with real GDP growing at above the OECD average, particularly in China and India. The GDP per capita gap with OECD countries is decreasing, although real GDP per capita levels are still low with regard to OECD average: some 10% in India, 20% in China and around 30% in Brazil and South Africa. Strong economic growth has helped to reduce extreme poverty in all four countries, especially in China. Nonetheless, the overall benefits of economic integration have not been shared equally and income (and consumption) inequalities increased, except in Brazil recently.

Labour market outcomes are crucial for poverty and inequality trends. Many workers have an informal employment, implying lower pay and less or no social protection. However, higher informality does not necessarily mean higher overall inequality. Educational outcomes and returns to education in the labour market play a more determinant role. Furthermore, income from public transfers, although representing a low share of total household income in the four countries, have played a non-negligible role in reducing poverty and inequality during the past decade, especially in Brazil.

Introduction

Economic growth depends on productivity improvements and the functioning of labour markets, but well-functioning labour markets rest in turn on a sustained and stable path of economic growth. Moreover, labour markets are the main channels through which inequalities may develop and persist. Globalisation, with its promise of economic growth, is often perceived as having positive impacts on living standards, although the gains are not automatic, and can even be negative for some segments of the labour market. Some of the major areas of concern include the loss of jobs in industries that are becoming less competitive, the bias of technological change against unskilled workers, and the growing segmentation of the workforce, which is often accompanied by a race to the bottom in terms of labour standards and social protection.

In the last two decades, Brazil, China, India and South Africa (the BCIS countries) have become very important actors in the globalisation process, which is why, analysing the evolution of the drivers behind that process and its impacts on people's lives is crucial to a better understanding of these countries' economies as well as of living standards in other emerging economies and worldwide.

For that purpose, this chapter intends to give a comparative overview of the trends in economic growth, labour market outcomes and income inequality since the early 1990s in Brazil, China, India and South Africa, a period during which these countries initiated important reforms and attained a sustained growth path, at least until the recent economic crisis.[1]

The chapter is structured as follows: Section 1.1 provides an overview of the economic performance of these economies in the context of the globalisation process and of their progressive integration into the world economy. Section 1.2 starts by reviewing briefly the urbanisation and migration processes observed since the early 1990s in the four countries and then focuses on the evolution of the employment and unemployment outcomes in each country. The quality of the employment created during that period matters as much as its quantity, and this section discusses the implications of working conditions for different groups of the population and among different segments of the labour market. Section 1.3 analyses the main trends in poverty and income inequality and points to the main drivers involved.

1.1. Economic growth since the early 1990s: models and outcomes

Economic reforms favoured productivity increases

Brazil, China, India and South Africa are a highly heterogeneous group of countries, differing significantly in terms of size, population and weight in the world economy. They are also at different stages of development, with the variation among their GDP per capita levels being similar to that among the OECD countries overall, and they also have different long-term growth prospects (OECD, 2010a). However, they have also all enjoyed a long and sustained economic growth path during the past decades, which is expected to continue, and have other economic features in common (Table 1.1).

Table 1.1. **Summary table on main economic outcomes in the BCIS countries, 1990-2008**[a]

		Brazil			China			India			South Africa		
		Variables change		Latest year value	Variables change		Latest year value	Variables change		Latest year value	Variables change		Latest year value
Main variables		1990s	2000s		1990s	2000s		1990s	2000s		1990s	2000s	
Macroeconomic outcomes	GDP growth[b]	-	++	5.1	+++	+++	9.0	++	++	6.1	+	+	3.1
	GDP per capita[c]	→	→	9 517	→	↑	5 515	→	→	2 721	↓	→	9 343
	FDI[d]	++	++	288	+++	+	378	+++	+++	123	+++	++	120
	Trade to GDP ratio[e]	+	++		++	+++		+	++		++	+++	
Labour market outcomes[e]	Employment to population ratio	→	→	68.2	→	→	80.2	→	→	58.2	→	→	42.2
	Unemployment rates	→	→	7.4	→	→	4.2	→	→	3.4	→	→	23.8
	Informal employment		→			→			→			→	
Living standards	Poverty incidence[f]	↓	↓	10.6	↓	↓		↓	↓	73.9	→	→	29.4
	Income inequality[g]	→	↓	0.55	↑	→		→	→	0.38	→	→	0.70

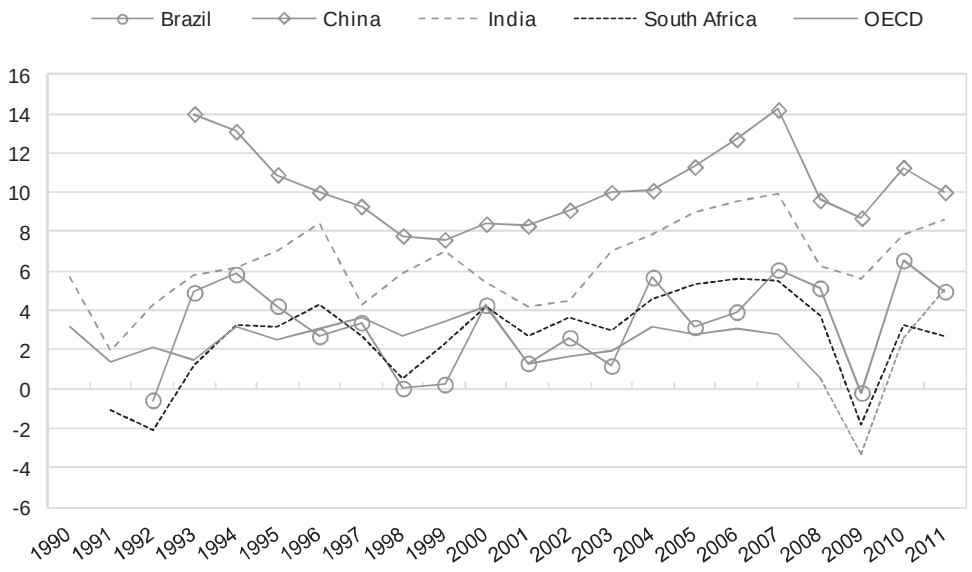
a) 2008 data or the latest year available.
b) For GDP growth (-) indicates below OECD average; (+) GDP growth between 2-5%, (++) between 5-8% and (+++) above 8%.
c) GDP per capita variation is measured in respect to the OECD average and the latest year value is measured in PPP constant 2005 international USD.
d) FDI corresponds to the inward stock: (+) indicates that FDI inward stock has increased on average above 5%, (++) above 10% and (+++) above 20%. The latest year available value is in thousand million current USD.
e) Trade to GDP ratio measures the average trade openness during each period: (+) indicates the ratio is below 20%, (++) between 20-40% and (+++) above 40%.
f) Poverty incidence is measured by the share of the population living under USD 2/day.
g) Income inequality is measured by Gini coefficient of per capita household income or consumption.

Source: OECD calculations based on national and international sources.

Indeed, during the past two decades, the BCIS countries' real GDP has grown faster than the OECD average. This was particularly the case in China and India, whose annual growth rates exceeded or approached two-digit levels until the current financial and economic crisis. Brazil and South Africa experienced a more erratic and less impressive growth, although their GDP growth rates accelerated in the 2000s (Figure 1.1). These positive outcomes were favoured both by major macroeconomic policy reforms which started in the 1980s in China, in the mid-1980s in India, and in the early 1990s in Brazil and South Africa, and by significant productivity gains and a rapid integration into the world economy, providing greater access to new technology, capital and financial markets.

From 1990 to 2008, the weight of these economies in the world economy has progressively increased, with the exception of South Africa. China recorded the most impressive performance, with its share of total world GDP expanding from 1.6% in 1990 to 7.1% in 2008, surpassing some of the G-7 countries (namely Canada, France, Germany, Italy and the United Kingdom), whereas Brazil and India reached shares of total world GDP of 2-3%, comparable to the levels of the Russian Federation and Canada (Table 1.2).

Figure 1.1. **High levels of real GDP growth in BCIS countries compared to OECD**



StatLink http://dx.doi.org/10.1787/888932332037

Source: OECD (2010b) and *OECD-EU Database on Emerging Economies*.

Table 1.2. **Growth of real GDP in selected OECD and BCIS countries**[a,b]

	Share in total world GDP 1990	Share in total world GDP 2008	Average GDP growth	Average GDP growth	Annual GDP growth				Projections	
					2006	2007	2008	2009	2010	2011
G-8 countries										
Canada	2.7	2.3	2.7	1.7	2.9	2.5	0.4	-2.7	3.6	3.2
France	5.7	4.7	1.8	1.2	2.4	2.3	0.3	-2.5	1.7	2.1
Germany	7.9	6.0	1.9	0.5	3.4	2.6	1.0	-4.9	1.9	2.1
Italy	5.2	3.8	1.3	0.1	2.1	1.4	-1.3	-5.1	1.1	1.5
Japan	13.8	8.1	1.0	0.5	2.0	2.4	-1.2	-5.2	3.0	2.0
United Kingdom	4.6	4.4	2.4	1.5	2.4	2.6	0.6	-4.7	-4.7	1.2
United States	26.4	23.4	3.3	1.6	2.7	2.1	0.4	-2.4	3.2	3.2
Russian Federation[c]	2.4	2.7	-0.4	4.8	7.7	8.1	5.6	-7.9	5.5	5.1
Total OECD	79.9	67.4	2.6	1.5	3.1	2.7	0.5	-3.3	2.7	2.8
Non-OECD										
Brazil	2.1	2.7	2.6	3.2	3.9	6.1	5.1	-0.2	6.5	5.0
China[c]	1.6	7.1	10.4	10.4	12.7	14.2	9.6	8.7	11.1	9.7
India	1.5	2.0	5.6	7.1	9.5	9.9	6.2	5.6	8.2	8.5
South Africa	0.5	0.5	1.6	3.6	5.6	5.5	3.7	-1.8	3.3	5.0

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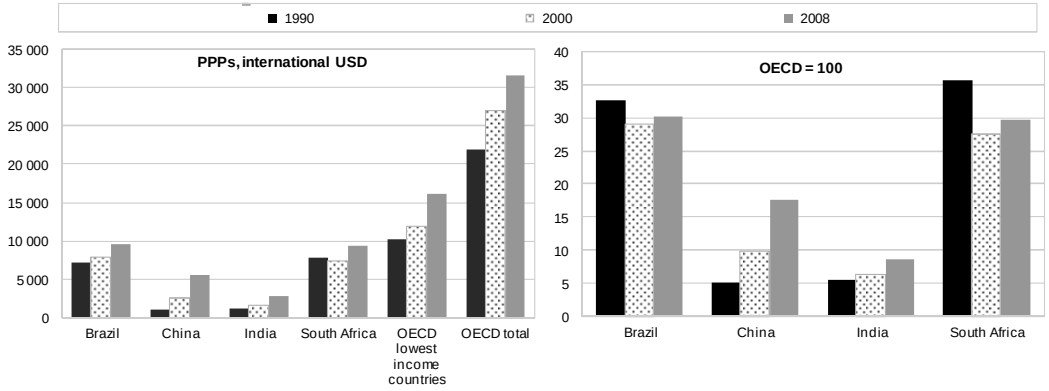
a) OECD's projections methods and underlying statistical concepts and sources are described in detail in "*Sources and Methods: OECD Economic Outlook*" which can be downloaded from the OECD internet site.
b) Aggregates are computed on the basis of 2005 GDP weights expressed in 2005 purchasing power parities.
c) The period covered is 1992-99 for China and 1995-99 for the Russian Federation.

Source: OECD (2010b) and the *World Bank Development Indicators Database*.

In the period since 1990, GDP per capita more than doubled in the four countries, thus closing the gap with the OECD countries. However, in 2008, GDP per capita was still at 30% of the OECD average in Brazil and South Africa, 17.5% in China and almost 9% in India. Starting from very low levels, the path of narrowing living standards with OECD countries has been more impressive in China than in India. Brazil and South Africa, which started from higher per capita GDP levels, saw their differences with the OECD countries deteriorate slightly during the 1990s, then improve somewhat since 2000 (Figure 1.2).

Figure 1.2. **GDP per capita in BCIS countries, 1990-2008**

In PPPs constant 2005 international USD



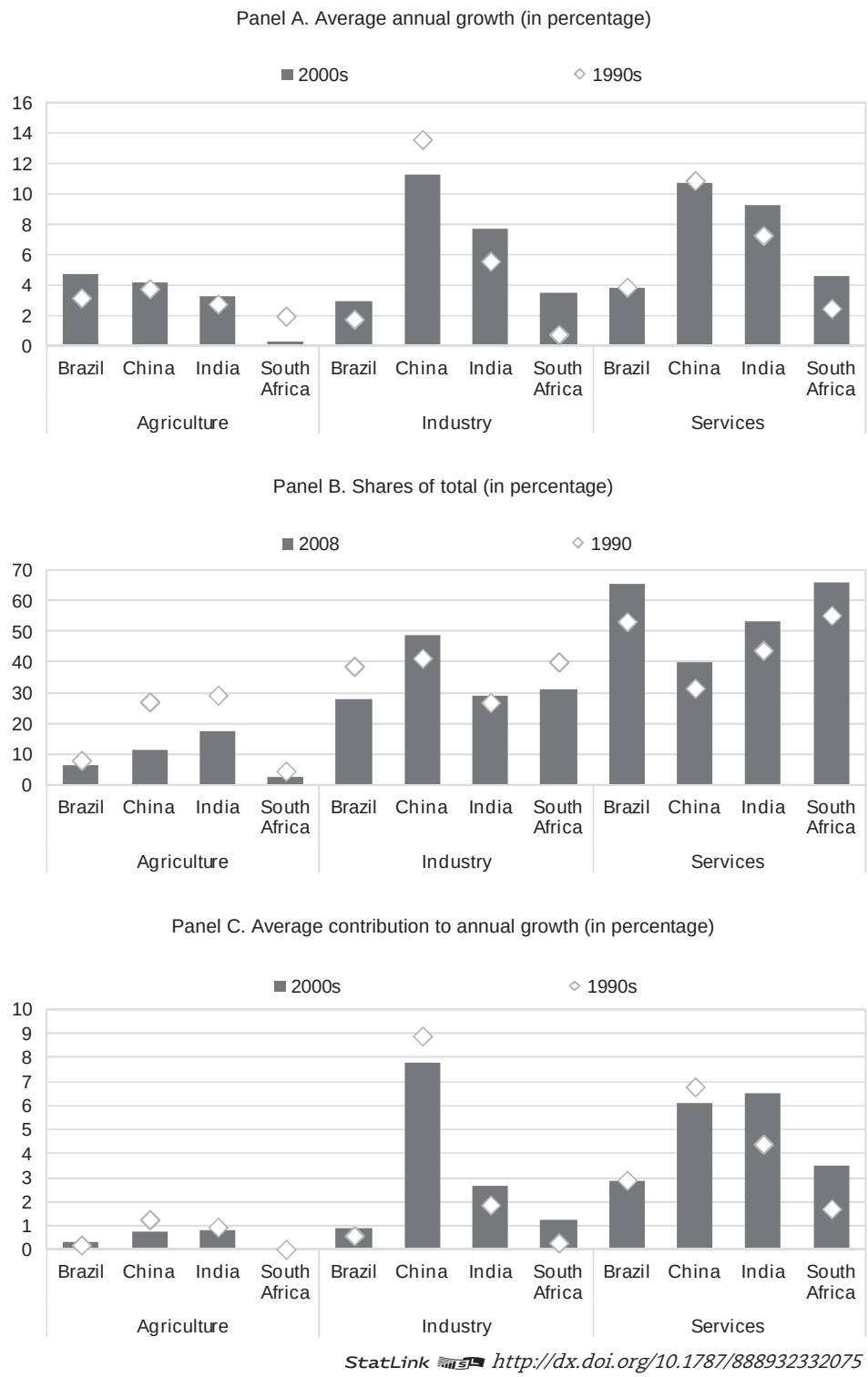
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Source: *World Bank Development Indicators Database*.

An important factor influencing the growth outcomes of these countries during this period is the profound economic reforms that they all experienced. Reforms mainly oriented at achieving greater economic stability and liberalisation have increased productivity and favoured trade and foreign capital flows as never before. In China, economic reforms that started in the early 1980s promoted important structural changes and an export-led growth pattern that rests on labour shifts from low-productivity agriculture to higher-productivity industry and services. As a result, agriculture's share of total output has decreased significantly, with the highest decline of the four countries, and with an equal increase of the shares of both the industrial and the services sector (Figure 1.3).

Figure 1.3. **Value added by sector of activity in BCIS countries, 1990-2008**

At constant 2000 USD



StatLink http://dx.doi.org/10.1787/888932332075

Source: *World Bank Development Indicators Database*.

India's performance was also favoured by the market reforms initiated in the mid-1980s, which gathered momentum in the early 1990s. Restrictions on investments by large corporations were lifted, financial markets reformed and infrastructures progressively improved, in a context of reduced budget deficits and improved tax reforms (OECD, 2007a). Although Indian economic growth has been much discussed, with a range of views on its different phases, there seems to be general agreement that India's development path during this period was somewhat unusual, as the shift of production from agriculture into manufacturing has been slower than that observed in countries at a similar stage of development, while the shift to services has been more rapid. As a result, the service sector's share of total output increased significantly between 1990 and 2008, whereas the share of the industrial sector remained almost stable at around 30%. India's manufacturing firms have not fully exploited the comparative advantages of their low labour costs and have remained small in scale, not fully exploiting economies of scale to increase their size. This led to limited productivity gains and weak job creation.[2]

Brazil also changed its development strategy in the 1990s by opening its economy, reducing the role of the state and applying restrictive macroeconomic policies. The abandonment of the exchange rate management mechanism in 1999 and the adoption of a policy framework that combined inflation targeting and better fiscal management, favoured a considerable improvement in macroeconomic fundamentals. This permitted higher growth rates than in most Latin American countries since the early 2000s, with a growth pattern in which production is less export-oriented than in China, and more sector-balanced than in India. Indeed, annual GDP growth rose to 4.8% in the period 2004-08, doubling the level of the five years that followed the float of the country's currency (OECD, 2009a).

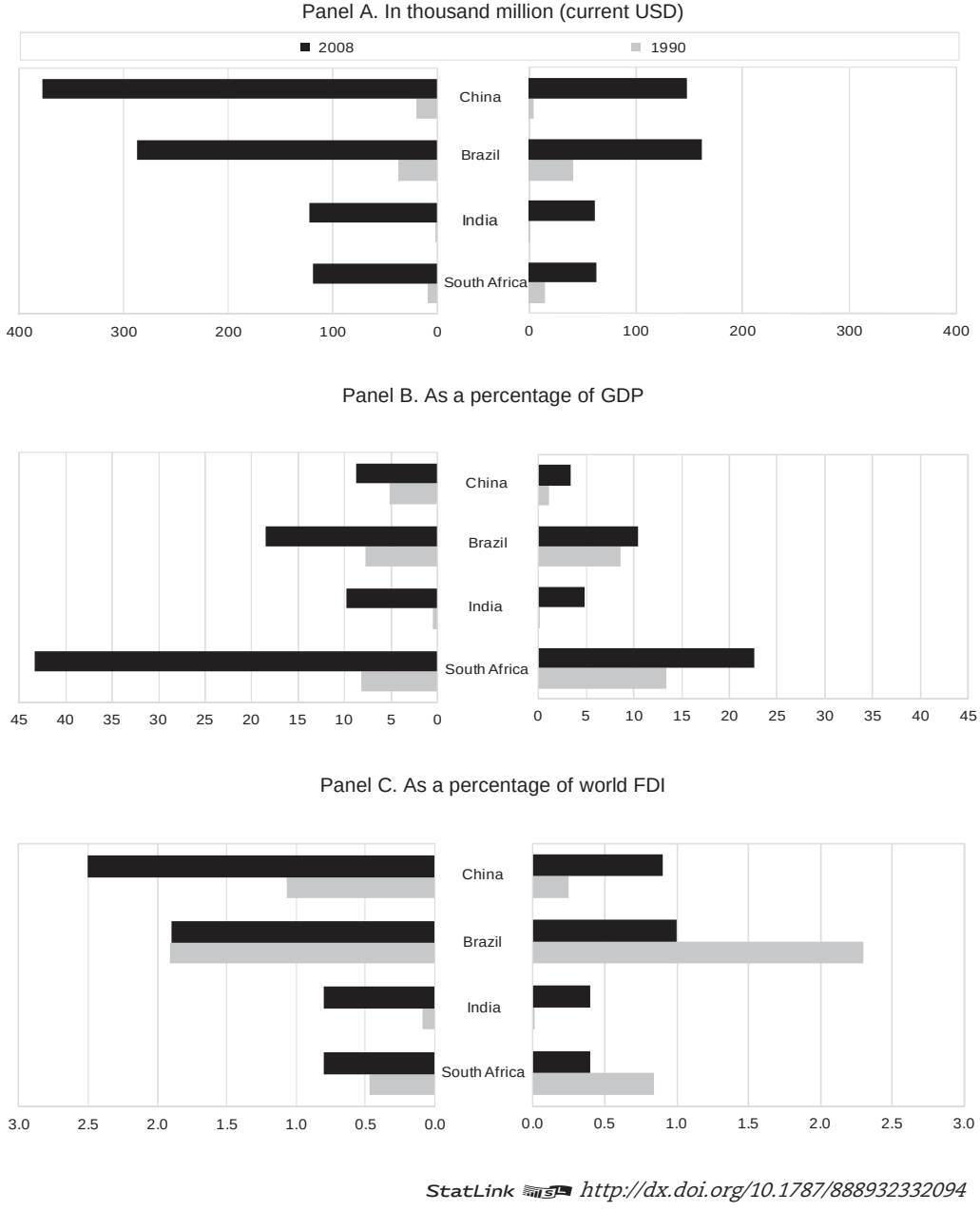
In South Africa, the fall of Apartheid and the general elections in 1994 marked a reverse of the poor productivity trends observed until then. Although growth initially remained sluggish, it accelerated thanks to rising labour productivity, first pushed by the mining sector and then spreading to other sectors of the economy. This was achieved by a much lower rate of capital accumulation and a more efficient use of the factors of production. Indeed, over the period 2000-05, total factor productivity growth for the economy as a whole reached 2%, after having stagnated during the last two decades of Apartheid (OECD, 2008a). Compared to other middle-income countries, South Africa has a relatively strong average labour productivity but extremely low employment which, until 2000, contributed to a divergence in living standards with the OECD countries. The contribution to output growth accelerated after that date, with the highest contribution to growth recorded by the services sector.

The role of trade liberalisation and capital accumulation

Other than increasing productivity, the BCIS countries' economic reforms significantly increased investment and favoured trade integration. Since the early 1990s, the four countries have experienced a substantial increase of foreign direct investment (FDI), both in volume, and in relative terms as a percentage of GDP and world foreign investment (Figure 1.4). Starting from a very low level, mainly in India and South Africa, the inward stock of FDI has been multiplied in the past two decades by 74 in India, by 18 in China, by 13 in South Africa and by 8 in Brazil. The weight of inward FDI with respect to world FDI has changed significantly only in China, reaching a higher level than in some OECD countries (namely, Belgium, France, Germany, Netherlands, Spain, Switzerland, the United Kingdom and the United States). It remained unchanged in Brazil

and increased slightly in India and South Africa, although it was still low in these two countries. On the other hand, outward FDI shares in world FDI decreased in Brazil and South Africa.

Figure 1.4. **Foreign direct investment in BCIS countries,[a] 1990-2008**



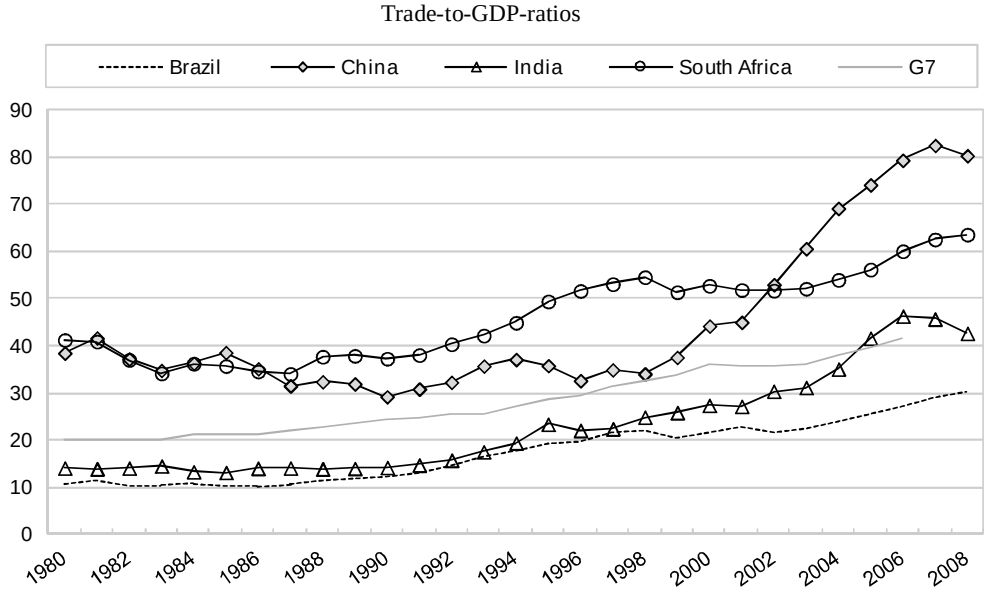
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a) China corresponds to China mainland.

Source: *UNCTAD and WTO Databases.*

Trade openness, measured by the trade-to-GDP ratio, has more than doubled in Brazil, China and India since the 1980s, accelerating significantly since the mid-1990s. It has increased less in South Africa although in 2008 its trade-to-GDP ratio was 60%, 20 percentage points below China, but above Brazil and India (Figure 1.5). Indeed, in China, the contribution of exports in terms of value added to GDP growth doubled during the 1990s, reflecting a rapid growth of exports that contributed to expanding its global market shares considerably (Guo and N'Diaye, 2009). India's share of world exports doubled in that period, but remains below 2%, as it does in Brazil and South Africa.

Figure 1.5. **Trade openness in OECD G7 and BCIS economies, 1980-2008**



StatLink http://dx.doi.org/10.1787/888932332113

Source: *World Bank Development Indicators Database*.

Indeed, since the mid-1990s the trade sector in South Africa was unable to keep up with developments in world trade, especially in raw materials and intermediate goods. As a result, its trade position remained quite constant. Both imports and exports as a percentage of world trade remained low even though international sanctions on trade and investment were dropped after the fall of Apartheid.[3] However, since 2004, South Africa's export performance has accelerated in value terms due to the increase in the price of its main export commodities (OECD, 2008a). Overall, during the past decade, South Africa's growth pattern has been characterised by low savings and investment rates, modest investment inflows and a weak export performance leading to a domestic-demand led growth path that has shown its limitations (OECD, 2010c).

Trade developments in China and India have differed considerably in terms of composition and the pattern of specialisation. Whereas China has become the world's third-largest exporter of manufacturing goods, the recent growth of India's trade has been led by services rather than manufacturing. Instead of developing a pattern of specialisation in low-skilled labour-intensive sectors, as in China, India has specialised in activities that are relatively skill and capital intensive, whereas its manufacturing trade has been highly concentrated in low-technology goods (Kowalski and Dihel, 2009). This

also explains a growth process that has not been intensive in job creation, since labour demand, particularly for high-skilled workers, has been concentrated in these more competitive specialised services (mainly services related to information technology and pharmaceuticals).

On the other hand, China's increased weight in world trade has also considerably influenced the other BCIS countries, in particular, Brazil. Indeed, other than benefiting from the terms of trade since 2002, Brazil has maintained a comparative advantage in the production of commodities to increasingly satisfy demand from China (Cardoso and Teles, 2009). Not only have Chinese exports stimulated resource allocation in Brazilian manufacturing (mainly manufactures and equipment products), but the Chinese market has also become increasingly important for Brazilian exports of agricultural goods (Lattimore and Kowalski, 2008).

This evolution of trade and investment, which has been spurred both by progressive liberalisation and technological change, has had a significant impact on the labour markets in these countries. It has facilitated a shift of jobs from declining sectors or occupations to expanding ones, in line with changes in comparative advantage. This has resulted in significant shifts and labour adjustments between regions and sectors, particularly in China.

1.2. Labour market developments

Employment and unemployment outcomes

Although in general, economic growth has a positive impact on employment growth, the magnitude of the impact varies considerably among the BCIS countries and the periods observed, depending on the initial labour market structure and composition as well as on the labour market regulations and policies in place.

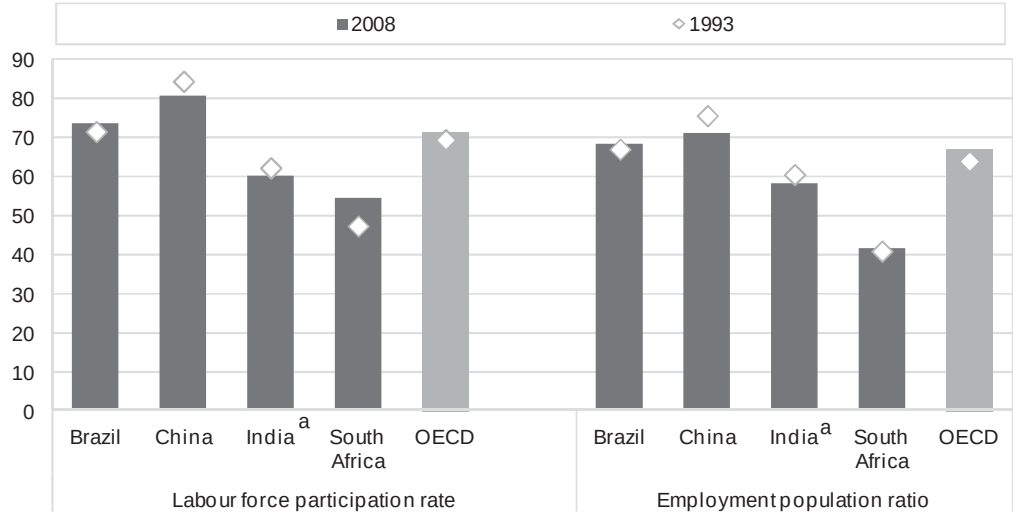
Over the past decades, the main challenge of the BCISs has been to increase employment rapidly enough to cope with the growth in the labour force. In the period 1993-2008, the labour force population aged 15-64 has increased on average by more than 7 million people each year in China, by almost 6 million in India, by around 2 million in Brazil and by 300 000 in South Africa.

In both the 1990s and 2000s, employment growth was below GDP growth in Brazil, China and India, whereas South Africa registered higher employment growth in the first period compared to GDP and a significant decline in the second. The elasticity of employment to economic growth is larger in both Brazil and South Africa compared to China and India,[4] which means that a higher rate of economic growth has to be maintained in the latter in order to create enough employment to absorb the numbers of people entering the labour force every year.[5] This also confirms the differences in the growth pattern of the BCISs, with China and India's low employment elasticity pointing to important structural changes and productivity growth. In contrast, in Brazil and South Africa economic growth since the late 1990s has favoured bringing more people into employment instead of redistributing the existing employment between sectors and favouring rapid economic structural change, as has been the case in China, and to a lesser extent in India.

Labour force participation rates vary considerably among the BCIS countries, with China and Brazil being above the OECD average, whereas India and South Africa are significantly below (Figure 1.6). Although China and India have experienced a slight

decline during the past decade, the trend was the opposite in Brazil and South Africa, mainly due to the growing labour market participation of women and youth in recent years.[6] However, in South Africa labour force participation rates remain very low due to extremely low employment rates, especially among the African population. As a result, the employment-to-population ratio in India and South Africa is between 10-15 points below the OECD average, whereas it is significantly above the OECD average in China and just slightly above in Brazil (Table 1.3).

Figure 1.6. **Labour force participation and employment rates are higher in China and Brazil**



StatLink http://dx.doi.org/10.1787/888932332132

a) Data for India refer to 1993/94 and 2004/05.

Source: *OECD Labour Force Statistics Database, OECD-EU Database on Emerging Economies.*

Regarding unemployment, rates range from 3.4% in India to 23.8% in South Africa, with only Brazil having unemployment rates similar to the OECD average, in the range of 6%-10%. The estimated unemployment rate in China is double the rate of the official statistics, which are calculated only for urban areas on the assumption that agricultural workers cannot be classified as unemployed because they own land, requiring them to work to keep it (Box 1.1).[7]

In South Africa, unemployment soared to levels of 30% in the early 2000s due to sluggish economic growth in the first years after the fall of Apartheid, which did not create enough jobs for the additional workers entering the labour force in that period. Even if the unemployment rate decreased thereafter due to improved economic growth, accompanied by both lower population growth and lower labour force growth – mainly due to the effects of HIV/AIDs – it remains at very high levels, and is very unevenly distributed, varying with ethnic group, age, gender and skills (OECD, 2008a). Moreover, long-term unemployment is very high, with half of the unemployed having never worked, which has a clear incidence on poverty and inequality outcomes (OECD, 2008a and Leibbrandt *et al.*, 2010). Almost one working-age person out of four is unemployed (one out of three if including "discouraged workers", defined as those not actively seeking a job). This makes job creation and unemployment reduction the main priority to reduce inequalities and sustain growth (Box 1.2).

Table 1.3. **Main labour market indicators in selected OECD and non-OECD countries, 1993-2008**

	1993	1999	2005	2008	1993	1999	2005	2008	1993	1999	2005	2008
	Total population (000s)				Working age population 15-64 (000s)				Labour force population 15-64 (000s)			
G-8 countries												
Canada	28 685	30 401	32 245	33 311	18 974	20 276	21 882	22 682	14 242	15 370	17 024	17 818
France	57 467	58 677	61 181	62 277	37 085	37 697	39 367	40 012	24 682	25 567	27 327	27 897
Germany	81 156	82 100	82 469	82 110	55 452	55 145	54 875	54 166	39 232	39 261	40 521	41 130
Italy	56 832	56 916	58 607	59 832	38 805	38 805	38 646	39 182	22 645	23 191	24 097	24 696
Japan	124 938	126 686	127 768	127 692	86 920	86 770	84 610	82 440	62 000	62 840	61 460	60 840
Russian Federation[a]	148 729	147 205	143 170	141 394	98 897	101 391	101 828	101 788	..	72 379	73 431	75 758
United Kingdom	57 714	58 684	60 238	61 383	36 323	36 829	38 008	39 603	27 658	28 032	28 966	30 409
United States	259 919	279 040	295 561	304 060	164 204	175 269	191 014	196 626	125 763	135 363	144 043	148 042
Total OECD	708 302	744 607	779 980	796 251	685 204	727 549	764 935	778 185	475 222	509 529	537 405	551 963
Non-OECD countries												
Brazil	156 873	171 675	186 075	191 972	96 569	110 747	123 339	128 739	64 223	73 370	88 676	92 958
China	1185 675	1256 729	1312 253	1337 411	786 219	843 234	924 229	956 664	662 396	706 625	751 155	773 315
India	916 692	1024 799	1130 618	1181 412	539 602	619 121	704 611	750 137	322 995	364 495	393 262	..
South Africa[b]	39 561	44 215	48 073	49 668	23 561	27 574	30 897	32 219	11 345	11 509	16 700	16 320
	Labour force participation rate				Employment population ratio				Unemployment rate			
G-8 countries												
Canada	75.1	75.8	77.8	78.6	66.5	70.0	72.5	73.7	11.5	7.6	6.8	6.2
France	66.6	67.8	69.4	69.7	59.1	59.8	63.2	64.6	11.2	11.8	8.9	7.4
Germany	70.7	71.2	73.8	75.9	65.1	65.2	65.5	70.2	7.9	8.5	11.3	7.6
Italy	58.4	59.8	62.4	63.0	52.5	52.9	57.5	58.7	10.1	11.5	7.8	6.8
Japan	71.3	72.4	72.6	73.8	69.5	68.9	69.3	70.7	2.6	4.9	4.6	4.2
Russian Federation[a]	..	71.4	72.1	74.3	..	62.1	66.9	68.0	8.3	12.9	7.6	6.4
United Kingdom	76.1	76.1	76.2	76.8	68.2	71.5	72.6	72.7	10.4	6.0	4.7	5.4
United States	76.6	77.2	75.4	75.3	71.2	73.9	71.5	70.9	7.0	4.3	5.1	5.8
Total OECD	69.4	70.0	70.3	70.9	63.9	65.3	65.5	66.7	7.9	6.7	6.7	6.0
Non-OECD countries												
Brazil	71.5	71.5	73.9	73.6	67.0	64.4	66.7	68.2	6.3	9.9	9.7	7.4
China[c]	84.3	83.8	81.3	80.8	75.5	74.2	71.7	71.0	2.6	3.1	4.2	4.2
India	62.1	64.5	60.2	..	60.5	62.6	58.2	..	2.7	2.8	3.4	..
South Africa[b]	47.3	45.5	56.8	54.4	40.8	35.8	41.6	41.5	13.7	21.2	26.8	23.8

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a) Data for 1993 refer to 1995.
b) Data for 1999 refer to 1997 and all data cover persons aged 16 to 64.
c) The employment population ratio and unemployment rate refer to persons 15 and over and urban unemployment only.

Source: Total population data are from the *OECD Older Worker's Population Database* as are the working age population data for the Russian Federation; Labour force data, including working age population, for the OECD countries are from the *OECD Labour Force Statistics Database*; and the remaining data are from the *OECD-EU Database on Emerging Economies*.

Box 1.1. **Estimating unemployment in China and its evolution since the mid-1990s**

In the mid-1990s China introduced a progressive market reform that dealt with both the restructuring of state-owned enterprises (SOEs) – allowing them to recruit workers without planning permission – and the substitution of life-time employment by indefinite and temporary labour contracts, as provided in the 1994 Labour Law. As a result, the weight of both employment in the private sector and urban unemployment increased significantly. Indeed, at the end of the 1990s, 4 million jobs were lost per year due to the restructuring of the SOEs.

Chinese official statistics show an increase in the urban registered unemployment rate from 2% to 4.2% between 1990 and 2008. However, this rate is not comparable to international standards. To be comparable, data have to be estimated from the annual labour force surveys, whose questions correspond to the job-search categories used internationally. These surveys provide data for total employment as well as the number of the economically active population, and unemployment is then calculated as the difference between the two. Following this method, it has been estimated that the unemployment rate of the urban working population, excluding those working in agriculture, peaked in 2000 at nearly 10% and decreased slowly thereafter to reach levels of around 6% in 2008 (*i.e.* OECD, 2010a and OECD, 2010d). Cai *et al.* (2009) point to similar results, showing clearly that the unemployment level in China is higher than official statistics suggest.

Box 1.2. **Unemployment, poverty and inequality in South Africa**

In the period 1993-2008, unemployment rates have increased across all age groups in South Africa, with the youth population registering the highest increase (from 20% to 33% for those aged 21-30). Even if the youth population is better educated than it was some years ago, they face greater difficulty accessing the labour market and have a higher probability of remaining unemployed for a longer time. Moreover, unemployment in South Africa is clearly correlated with race, with the African population registering the highest unemployment rates. While the differentials in unemployment rates between racial groups have considerably decreased, Africans still had an unemployment rate of 27% in 2008, compared to 10% for the White population.

Analysing unemployment rates by income decile in 1993, 2000 and 2008, Leibbrandt *et al.* (2010) found that unemployment rates decrease among higher deciles. Inequality has worsened since 1993, with unemployment rates falling significantly after 2000 in the top deciles of the income distribution. However, overall unemployment rates have increased since 1993, mainly due to the fast increase of unemployment among the bottom four income deciles.

This evolution has clearly contributed to a rise in poverty risks. Indeed, while the presence of an employed person in a household is not a guarantee that the household will be out of poverty, the lack of employment is a very strong marker of poverty.

The unequal distribution of unemployment across the income deciles has also contributed to the increase in income inequalities. However, this is not the only explanation, and inequality of labour income, measured by wage differentials, is equally important. Indeed, inequality of earnings has also increased for households with access to labour market earnings.

In the BCIS countries, the lack of well-developed unemployment compensation schemes makes unemployment an "unaffordable" situation for the majority of the population, with the unemployed often being obliged to search for any kind of employment at all just to survive. As a result, as will be seen below, under-employment and informal employment are widespread.

All four countries experienced a progressive decline of employment in agriculture and an increase in the share of employment both in industry and in the service sector, though India registered very low growth of employment in the manufacturing sector (Box 1.3).

However, employment in agriculture remains large in the four countries, accounting for around 10% of the workforce in Brazil and South Africa, 40% in China and 56% in India, compared to less than 5% in the OECD countries. Indeed, China and India are still characterised by a large excess of labour in rural areas. Whereas four in five workers in India are found in rural areas, in China the level is almost two-thirds, which gives an estimated labour surplus of around 170 million workers in China and 130 million in India (OECD, 2007b). With agricultural employment in China declining modestly in the past decade (less than 1.5% per year), it may take another decade for the share of labour in agriculture to fall to levels of 25% (OECD, 2010d).

Box 1.3. **Employment in the manufacturing sector in India**

One of the main patterns in India's growth in the past decades lies in a "dualistic" growth of the manufacturing sector. This refers to an increase of employment at both ends of the firms' size distribution, which has led to an underdevelopment of employment in medium-size firms (sometimes referred to as the "missing middle").[8] This pattern has contributed to the relatively slow growth of the manufacturing sector compared to the tertiary sector, in terms of both value added and employment. As a result, earning levels in the tertiary sector have been significantly above those in manufacturing, suggesting that growth in the tertiary sector has been productivity-led rather than employment-led.

Indeed, the manufacturing sector in India has been characterised by the persistence of a significant "dualism" regarding the size of establishments. This has favoured a strong bi-modal distribution of employment, with a strong concentration of employment at both the small and large establishments. As a result, productivity and wage gaps between these two groups have been larger in India than in other Asian economies.

The distribution of employment across different-sized firms matters, as both productivity and wages tend to increase with firm size. Of the six Asian countries for which productivity data were available in a recent Asian Development Bank (ADB) study, the lowest productivity (measured by the value added per worker) in small enterprises (5-49 employees) was observed in India, where productivity was below 10% of that observed in large firms (+200 employees). Indonesia and Philippines follow, with productivity gaps between small and large firms of around 20%.

With regard to employment in the manufacturing sector in India, 61% is found in microenterprises (defined as less than five employees), a share that is considerably higher than in other Asian countries (44% in Indonesia and less than 25% in China, Malaysia, Philippines and Thailand). Moreover, only India and Indonesia have a distribution of employment that does not increase with firm size. By contrast, China, Malaysia and Thailand followed a different pattern, in which the share of employment increases steadily with size, and where large enterprises (more than 200 employees) clearly dominate (ADB, 2009).

Indeed, whether China is about to reach a turning point remains controversial. According to some authors (*i.e.* Cai *et al.*, 2009; and Zhang *et al.* 2010), this would mark the end of a long era of unlimited labour supply at the subsistence wage that will accentuate labour shortages and real wages increases. OECD (2010c) opposes that view, arguing that the specific demographic factors that caused labour shortages in 2008 were mainly due to the very small size of the 18-22 age cohort, and this will not apply for those born later.

Rural under-employment is expected to persist, but coexists with shortages of skilled and unskilled labour, mainly in industrialised coastal areas. Although these shortages have been reported since 2004, reflecting an increasing reluctance among young migrants to accept the worst, low-paid jobs, this phenomenon vanished for a time during the 2008 financial crisis. However, the economic recovery experienced since mid-2009, has again brought evidence of the existence of labour shortages in the coastal areas, as migration flows from rural areas are now diversifying to other central regions where new infrastructure projects are being developed (CCIC, 2010). Such supply-side pressures are expected to provoke a gradual shift of labour demand towards more attractive and better-paid jobs.

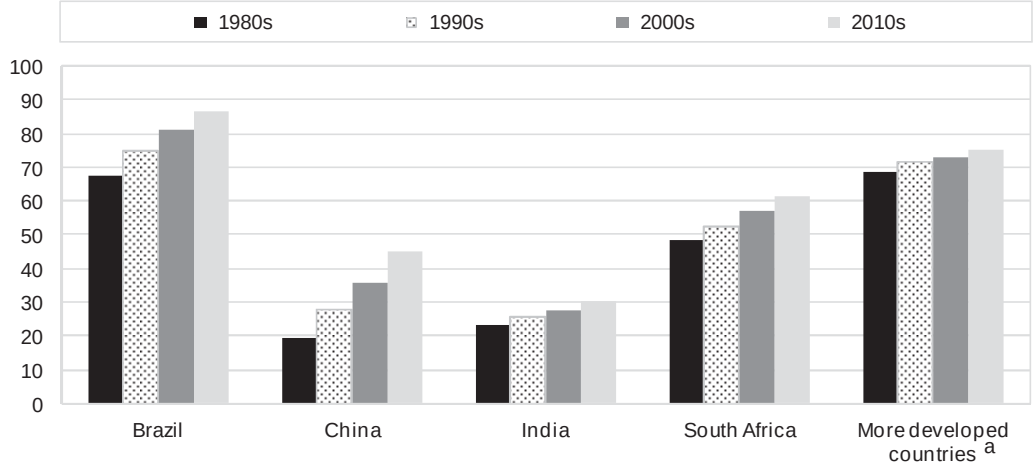
Urbanisation and internal migration have shaped labour markets, especially in China

During periods of rapid industrialisation, rural to urban migration tends to accelerate significantly, thus helping to shape labour markets. However, rural to urban migration depends not only on individual rational choices, but also on any institutional incentives or barriers that may exist in each country. Generally, rural workers and households make decisions to migrate or not depending on labour market conditions and their own endowments. They migrate to urban areas, where there are usually more job opportunities, when the expected benefits are greater than the associated costs.[9]

The BCIS countries have experienced an important rural to urban migration, as is shown by the significant increase in the shares of the urban population in recent decades (Figure 1.7). However, the evolution in China, which started with the lowest share of the urban population, is the most impressive. Indeed, in 1980, the urban population in China and India represented, respectively, 20% and 25% of the total population, whereas in South Africa and Brazil it represented half and two-thirds of their total populations. Over the subsequent two decades, these shares increased to over 40% in China, 30% in India, 60% in South Africa and over 80% in Brazil. This process is expected to continue, and according to the United Nations' population projections, it is estimated that in 2030, nine inhabitants out of ten in Brazil, eight in the developed countries (including Europe, North America, Australia, New Zealand and Japan), seven in South Africa, six in China and four in India will be living in urban areas.

Figure 1.7. **Urbanisation process in Brazil, China, India and South Africa, 1980-2010**

Urban population's share (in percentage)



StatLink http://dx.doi.org/10.1787/888932332151

a) "More developed countries" include all regions of Europe, North America, Australia, New Zealand and Japan.

Source: *United Nations, World Urbanization Prospects, 2007 Revision Population Database*.

The fastest urbanisation process, observed in China, is mainly due to unprecedented internal migration flows from rural areas to cities. Despite existing obstacles to labour mobility, mainly linked to the registration system (*hukou*) and the associated restrictions on social protection, the number of rural migrants to urban areas increased from 2 million

in 1983 to 140 million in 2008. As a result, migrant workers have had a substantial and growing role in urban labour markets. For example, in 2008, they represented 47% of total urban employment, double the level just ten years earlier.

Despite legislation constraints, internal rural-urban labour mobility has been one of the driving forces in China's rapid economic growth. As large labour surpluses of low-skilled workers in rural areas migrate to urban areas, non-agricultural sectors with low labour costs have expanded, at the same time raising productivity in the agricultural sector. This evolution has had two main effects: a resource reallocation effect (namely, the change from low-productivity agricultural employment to higher productivity sectors), and an income effect, as the growing number of migrants has led to increasing rural households' income through remittances, even if the wage rate of migrants has remained quite stable. As a result, labour migration has contributed to reducing rural poverty.

In India, both poor and rich households report rural-urban migration, although the reasons for migrating in each household and the nature of the jobs sought by migrant workers are different. On the other hand, educational attainment and the probability of finding a job weigh heavily in the migration decision. As shown by Kundu and Mohanan (2009), in India, even if the household motivation to migrate is in principle stronger for poorer households, the ability to "afford" migration is higher for richer households. This results *de facto* in higher migration rates among the latter, which seems to contradict the idea that mobility is higher among the poor when compared to middle-class and upper-class households in India. Indeed, two-thirds of migrants to urban areas are literate, with medium and small towns showing a higher incidence of migrants with secondary or higher levels of education than do the large cities (more than a million inhabitants). The most educated find it easier to get absorbed into India's cities, whereas poor, illiterate and unskilled labourers can generally get a job only in informal activities, mainly as casual workers, limiting their employment opportunities and the prospects of poverty alleviation. This shows that urban areas have become less accommodating for the poor in recent years (Kundu and Mohanan, 2009).

In South Africa, migration patterns have changed since the fall of Apartheid. Prior to 1994, internal migration was largely determined by law,[10] which ascribed specific residential locations to ethnic groups. Since then, internal migration has been determined mainly by economic factors. However, the spatial distribution of the population inherited from the Apartheid period, which confined the African population to allocated rural homelands, has contributed to a labour force that is spatially segregated between rural and urban areas and has thus experienced different outcomes in terms of employment, unemployment and wages.

Labour market segmentation: towards increased informalisation?

Migration has contributed to labour market developments in recent decades, especially in China, influencing the quality of jobs created. Although the lack of comparable data blurs the picture of the main characteristics and the quality of the jobs created in the four countries, there are some indications that the incidence of non-standard employment – mainly informal work but also part-time and temporary work – has increased, mainly in urban areas. Although the extent of informality is difficult to measure, there are indications that it is structurally high in India and more moderate in Brazil, China and South Africa (Box 1.4). In all cases, the BCIS labour markets are characterised by a higher degree of informality than the OECD countries which affects

the less privileged more significantly and contributes to the persistence of income inequalities.

The evolution of informal employment in the past decade has nevertheless been different in these countries, decreasing in Brazil and increasing in China, India and to a lesser extent in South Africa. For example, in China informal employment, characterised by the absence of labour contracts and social insurance, increased mainly in urban areas. Many urban workers laid-off from SOEs at the end of the 1990s were employed informally while searching for better options. Many migrant workers coming to cities from rural areas also entered the informal sector. Estimations from the Chinese Urban Labour Survey (CULS) from the Institute of Population of the Chinese Academy of Social Sciences show that the percentage of local urban residents working in informal employment doubled between 2001 and 2005 from 13% to 30%. In the same period, the share of migrant workers working informally, already very high, grew further to reach 85% in 2005. Moreover, there is some evidence that, compared to formal workers, these workers work more hours, are worse paid and more vulnerable, and lack social protection. There are however some indications that the 2008 labour reform may have contributed to encouraging wage employment, reducing overall informality of urban workers in 2010, in particular for migrant workers, and increasing social protection coverage (Du, 2010).

A similar pattern of increasing informality and deteriorating working conditions for some groups of the population has been observed in India during the 2000s, as most of the net increase in employment observed in recent years has occurred mainly in the least productive, unorganised and informal sector of the economy due to the decline of employment in both the public sector and the private organised sector, and the progressive increase in the proportion of self-employment and casual workers.

Indeed in India, informal workers, defined by the National Commission for Enterprises in the Unorganised Sector as those not having employment security, work security and social security, constitute around 86% of the total workforce. The Indian informal sector is very heterogeneous, including production units having different features and covering a wide range of economic activities, as well as people (*i.e.* workers, producers, employers) who work in service activities or produce under many different types of employment relations and production arrangements. Most of the Indian informal sector is constituted by self-employed workers. Some also work as wage workers, but then are often employed on a casual basis. In addition, the informal sector in India is characterised by enterprises with low productivity due to a low technological level, limited access to inputs and services, and an inability to market their products remuneratively. As a result, most of those engaged in these jobs, both owners and workers are poor.

In Brazil, informal workers are defined as those without a registered labour card (documenting the employer-employee relationship). Informality started to increase in the 1990s, and peaked in 1999. Since then, the trend reversed and the informality rate dropped to 39% in 2008 (around 34 million workers). Indeed, since 2000, there has been a continuous growth in both job creation and job destruction, resulting in a net creation of 3.5 million jobs in 2007 in the formal sector (compared to 1 million in 1999). The fact that this has been accompanied by falling unemployment rates seems to indicate that the jobs created in the formal sector have been occupied, at least partly, by the unemployed.

Box 1.4. **Defining and measuring informality**

There is no universally accepted definition of informal employment (see OECD, 2004, 2008b, 2009b and Perry *et al.*, 2007). OECD (2008b) defines informal employment in a broad sense as: "employment engaged in the production of legal goods and services where one or more of the legal requirements usually associated with employment (such as registration for social security, paying taxes or complying with labour regulations) are not complied with". When trying to measure it, each country has its own definition of informality. However, the most commonly used concepts are those recommended by the ILO, which relate to employment in the informal sector and informal employment.

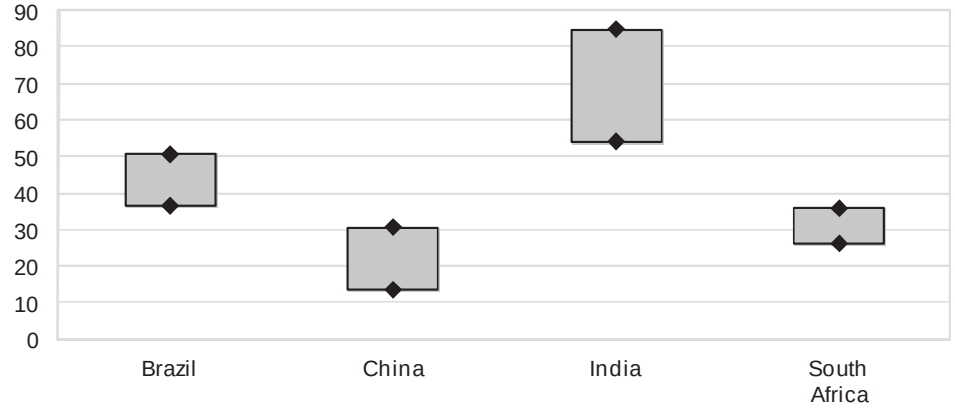
The first refers to the legal registration status of the enterprise unit and covers employment in unregistered enterprises which are private unincorporated (or household) enterprises that produce and sell legal goods and services, with paid employment up to a certain threshold (usually five employees). The second refers to jobs that do not comply with national labour legislation, income taxation, social protection or entitlement to certain employment benefits like advance notice, severance pay, and paid annual or sick leave. Informal jobs can thus be performed in units of any status, including both formal and informal-sector enterprises, as well as in households producing exclusively for own use.

While the two concepts of informality are complementary, the *informal employment* definition tends to be broader. Compared to informal-sector employment, informal employment adds two important groups, namely informal employees in the formal sector and paid employees in households producing exclusively for own use, while it subtracts a group that tends to be small in most developing countries, namely formal employees in informal enterprises.

The figure below shows how the levels of informality differ significantly in three of the BCIS countries, depending on the definition used. For Brazil, the lowest share corresponds to the share of non-salaried workers and the highest to the workers not affiliated to the Social Security. For China, the lowest band corresponds to the estimations from OECD (2005) (*i.e.* self-employed) and the highest band to the estimations from the China Urban Labour Survey (CULS) for local workers in 2005. However, preliminary data from CULS 2010 show a decrease of the highest band of the informality share to 26% for local workers and to 53% for migrants (85% in 2005). For India, the lowest band corresponds to the share of non-salaried workers and the highest to the country specific measure of the share of workers not covered by the provident fund. For South Africa, the lowest band corresponds to the national measure based on the share of workers in non-registered business (2008 data) whereas the highest band corresponds to the share of workers not covered by pension and medical plans.

Share of informal employment, lower and upper bound estimates, latest year available

In percentage of total employment



StatLink http://dx.doi.org/10.1787/888932332170

Source: OECD (2010a), Figure 2.6; OECD (2010e), Figure 3.7; and the *OECD-EU Database on Emerging Economies*.

In South Africa, informal employment includes both employment fulfilled in a non-registered firm and the employment of domestic workers. Informal employment is less widespread than in the other three countries, but has grown significantly since 1993, with a higher incidence among women than men, mainly due to the overrepresentation of women among domestic workers. This pattern is also observed in India.

In all countries the aggregate informality share masks different outcomes for different groups of workers. In general, there is a negative relationship between educational attainment and the informality rate, with the most educated having the lowest informality rate, whereas women and ethnic minorities tend to be overrepresented in informal employment. For example, in Brazil the informality rate is almost three times higher for the low-educated than the higher-educated – 3 points higher for women than men and 10 points higher for non-white workers than white workers.[11] In addition, as pointed out by Chen *et al.* (2004), women tend to be more represented in the lower segment of the informal sector, implying that they earn less than men.

The highest shares of informality are normally found at both extremes of the age distribution. This is confirmed both in South Africa and in Brazil. In South Africa, the youth have experienced the highest increase in participation in informal employment, and their informality rate is the highest of all age groups (32% compared to 24% for the prime age group and 28% for the oldest), in Brazil, the youth also have a higher informality rate than do prime-age workers, although the highest informality rate is recorded by older workers (10 points higher than for youth).

Informal employment is the only option when the skills or capital to become self-employed are lacking or there is a scarcity of formal salaried jobs. For the youth, informal employment is often a point of entry into the labour market, and as they cumulate experience, or simply queue, they find a job in the formal sector or become self-employed. For older workers, informality often reflects the difficulty of accumulating enough years to secure a meaningful pension. This is the case in Brazil, where the high informality rate among older workers is due mainly to the early retirement practices observed in the 1990s in the formal sector. Many of these retired workers, who had no incentive to pay social security charges because they were already receiving benefits, continued to work in the informal sector to complement their household income. Although social security reforms (in 1998 and 2003) lifted the minimum age for retirement, to 65 for men and 60 for women, the stock of early retired workers is still large.[12]

Finally, there are significant differences in informality depending on the activity sector. Although agriculture usually presents a higher informality rate than other sectors of the economy, this is less the case in China. Indeed, Chinese informal employment is found not so much in agriculture as among urban migrant workers in the industrial or service sectors. On the contrary, in Brazil, although a slow decline has been observed, two-thirds of agricultural workers are working informally.

While there might be a voluntary upper-tier of informal employment, most of the informal employment in these countries is involuntary and is normally associated with low productivity jobs and low wages, and there is a risk of maintaining workers in low productivity/low income traps, contributing to high poverty risks.[13] This is the case in India where the National Commission for Enterprises in the Unorganised Sector has estimated that four out of five workers in the unorganised sector are poor and vulnerable (NCEUS, 2007).

Low wage levels and the increasing wage differential across different segments of the labour market have resulted in widespread poverty among workers, particularly casual workers. Indeed, ILO (2008) reports that in India the wages of casual workers, who make up a substantial share of the unorganised sector (35% and one-third of total employment in 2004/05) were 44% of the wages of a regular salaried worker. However, in 1993 this figure was 62%, showing that wage differentials increased considerably between informal and formal employment during the past decade. Moreover, discrimination regarding working conditions is often the norm, affecting mainly women, bonded and migrant workers, as well as some social or cultural groups (*i.e.* Muslims and scheduled tribes) and those from the countryside or above all with little or no education.

1.3. Impacts on poverty and income inequality

High economic growth is expected to be accompanied by an increase in household living standards. It is generally accepted that GDP growth since the early 1990s has made it possible to reduce the numbers living in extreme poverty in Brazil, China, India and South Africa, although not to the same extent among all population groups. The scale of the reduction also varies with the poverty measure used (Box 1.5).

Box 1.5. **Measuring poverty and income inequality**

Two main aspects of economic well-being are poverty and inequality. Poverty is defined as whether households or individuals have enough resources or abilities to meet their needs whereas inequality relates to the distribution of income, consumption or other resources across the population. To measure poverty, a relevant welfare measure has to be chosen, a poverty line needs to be selected – a threshold below which a given household or individual will be classified as poor – and, finally, a poverty indicator needs to be defined. One frequently-used poverty indicator is the headcount poverty rate (P0), which is the percentage of the population below a defined poverty line. Other indicators are the mean poverty gap (P1), which measures the poverty depth (*i.e.* the extent to which, on average, poor households are situated below the poverty line), and the squared mean poverty gap (P2), which measures its severity.

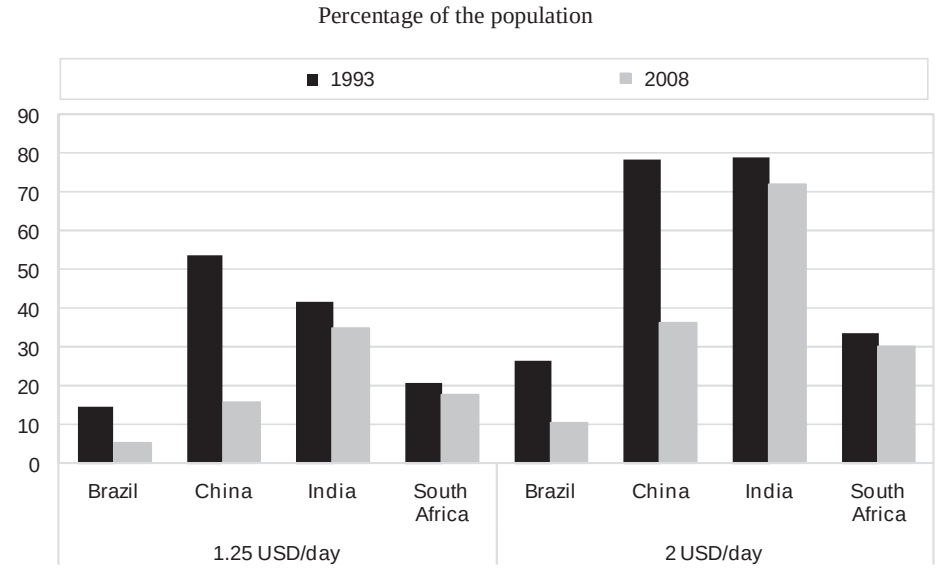
In addition, both extreme and relative poverty matter, as they show different aspects of poverty. Whereas the former refers to a standard set in all countries and does not change over time, the latter refers to a standard defined in terms of the society in which an individual lives and which, therefore, differs between countries and over time. Regarding the first, the generally accepted measure to estimate poverty worldwide is the reference set by the World Bank – the poverty lines set at USD 1.25/day and USD 2/day, expressed in 2005 purchasing power parity terms. Regarding the second, the thresholds of 40% and 50% of median income are the indicators most often used to measure relative poverty in the OECD countries, and these will be considered for the BCIS countries when available (see annex for detail on the sources used and their limitations in each of the four BCIS countries).

As for inequality, the most commonly used indicator is the Gini coefficient of the concentration of per capita income (or consumption). This is a common measure of inequality and ranges from 0 in the case of "perfect equality" (each share of the population gets the same share of income) to 100 in the case of "perfect inequality" (all income goes to the share of the population with the highest income). Other measures of inequality include the Theil and the Atkinson indexes.

Extreme poverty has significantly decreased, but is still a concern

Following the methodology developed by the World Bank, extreme poverty is conventionally measured with poverty thresholds of USD 1.25 or USD 2/day in purchasing power parities. Using these two poverty thresholds, the BCIS countries have seen important reductions in extreme poverty since they started their economic reforms in the 1990s. Although the reduction in the total number of poor people world-wide has been driven by the impressive Chinese performance in the past two decades, Brazil managed to halve the percentage of people living under these two poverty lines, whereas India and South Africa showed much more discrete reductions. Indeed, despite the improvements, India has the highest headcount poverty rate of the four countries for both poverty lines (Figure 1.8).[14]

Figure 1.8. **Extreme poverty has decreased but is still high in the BCIS countries**[a,b]



StatLink http://dx.doi.org/10.1787/888932332189

a) 2008 data refer to 2005 figures for China and India.
b) Headcount poverty is the share of the population living in households with consumption or income per person below the poverty line of USD 1.25 or USD 2/day (in purchasing power parity).

Source: *OECD-EU Database on Emerging Economies* and the *World Bank Development Indicators Database* for China.

World Bank estimates for China show that since the 1980s over 600 million people have been lifted out of poverty, although the decline was much more rapid in urban areas than in rural ones. In Brazil, 11 million people were lifted out of poverty in the same period until 2008, with a clear acceleration in recent years. In India, although the percentage of those in poverty has decreased significantly, at a slightly higher pace in rural areas than in urban ones, the number of poor has increased by around 40 million. This can be partly explained by demographic growth and migration, which has resulted in 30 million more Indians falling into extreme poverty in urban areas.

Economic growth did not mirror poverty reduction in the BCIS countries during this period. Whereas China had the highest GDP growth and the highest poverty reduction rate, Brazil achieved a higher rate of progress against poverty than did India, despite lower GDP growth. As shown by Ravallion (2009), the elasticity of poverty to growth – the change in

poverty per unit of growth in GDP per capita – was highest in Brazil (-4.3% compared to -0.8% in China and -0.4% in India for the period 1981-2005).

National poverty estimates provide additional insights

The analysis of poverty is clearly very sensitive to the poverty line chosen. At the national level, different definitions of the poverty line are used, rendering comparisons between countries difficult. Nevertheless, national definitions present some advantages, as they give a more detailed picture of poverty trends in the last decade in each country, but most importantly, national poverty lines are used by policy makers as the references to monitor national anti-poverty policies.

For example, in Brazil, using the national poverty line – set at BRL 137 per month, equivalent to USD 80 – 35% of Brazilian households were considered poor in 1992, a figure that dropped to 16% in 2008, with the greatest poverty reduction observed after the stabilisation plan implemented in 1994, and then again, more recently, after 2003 (Table 1.4). Although this reduction in poverty has been observed all over the country, important differences between regions remain. Whereas in the North-eastern regions poverty incidence decreased by 38% between 2003 and 2008, the poverty rate in 2008 was still three times higher in the North-east than in the South-east.

In China, national statistics compute poverty only in rural areas according to an annual poverty line set by the government.[15] Under this national poverty line, the number of rural poor decreased considerably between 1993 and 2008 (from 70 to 15 million). Although not easy to quantify, there is growing agreement that poverty in urban areas has increased since the early 1990s, in association with the labour market transformations that occurred with the restructuring process in state-owned enterprises – and the consequent lay-offs – and the migration flows from rural to urban areas (Cai *et al.*, 2009).

In India, the estimation of poverty has often been the subject of substantial controversy.[16] Although there is good evidence that overall poverty fell in terms of headcount ratios, there is no consensus on what happened to poverty in India in rural areas. Discrepancies between household surveys – like the national sample survey (NSS) – and national accounts (NSA) have made it difficult to derive a single picture of the evolution of poverty in India.[17] Using data from the NSS, which is the most often used source for poverty measurement purposes, the percentage of people below the national poverty line decreased from 30.7% in 1993/94 to 22% in 2004/05, with a sharper decrease in rural areas (Table 1.4).[18] This decline was accompanied by a decrease of the poverty depth of 50% between 1983 and 2004/05, from 12.6% to 5.7%, also with a higher decline in rural areas (Topalova, 2008).

The slower reduction of the incidence of poverty in urban areas compared to rural ones can be considered anomalous, as urban centres have been hailed as the engines of growth. According to Kundu and Mohanan (2009), this could not be attributed to significant movements of the labour force from rural to urban areas, as the rural-urban migration rate has remained quite stable, even if growth in agriculture has been modest and has experienced high volatility. On the contrary, urban poverty is higher in many of the developed and rapidly growing states, which raises the question of whether this is due to development or to the lack of it. Indeed, rural poverty is generally low in states with high per capita GDP, but that is not the case of urban poverty. The latter does not respond directly to economic growth, but can largely be attributed to the segmentation of the labour market between rural and urban areas and to barriers to migration from rural areas into cities and towns.

Table 1.4. **Incidence of poverty in the BCIS countries by region, 1993-2008**[a,b]
National poverty lines

	Population under the national poverty line (in millions)									
	Brazil			China	India			South Africa		
1993	51.6			70.0	297.8			21.6		
2000	45.8			32.1	245.7			22.4		
2008	29.8			14.8	272.2			26.5		
	Headcount poverty rate (in %)									
	Total	Rural	Urban	Rural	Total	Rural	Urban	Total	Rural	Urban
1993	35.0	61.4	28.0	7.7	30.7	31.6	28.0	54.0	75.8	31.6
2000	28.7	54.3	22.6	3.5	26.1	27.0	23.4	53.7	74.3	38.5
2008	16.0	34.8	13.0	1.6	21.8	21.7	21.9	54.5	77.0	39.3

StatLink http://dx.doi.org/10.1787/888932332588

a) For Brazil data refer to 1993, 1999 and 2008; for China 1994 instead of 1993 and only for rural areas. For India, data refer to 1993/94, 1999/2000 and 2004/05 and are based on consumption expenditures.
b) For Brazil, the national poverty line used is BRL 137 (USD 80 per month) and for South Africa it is ZAR 515 (USD 121 per month).

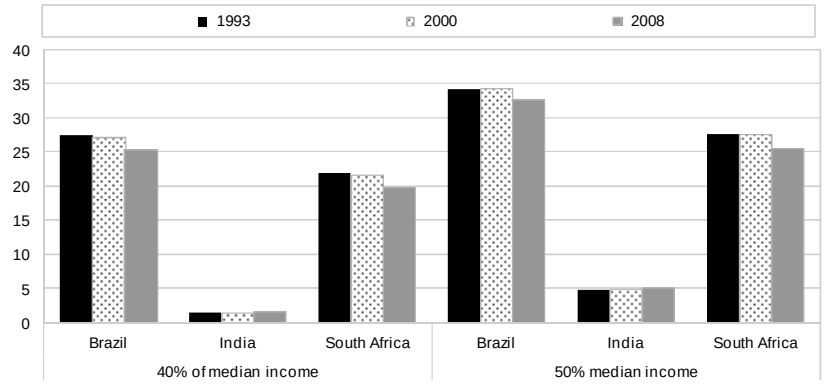
Source: *OECD-EU Database on Emerging Economies.*

South Africa is the only country that has not experienced significant changes in poverty incidence since 1993 according to national definitions. Several authors found some increase in poverty until 2000 (Statistics South Africa, 2002; Hoogeveen and Ozler, 2006), with this stabilising or slightly moderating thereafter (Van der Berg *et al.*, 2006). The current consensus is that in the first five years of democracy there have been no major shifts in the overall extent of poverty (Bhorat and Van der Westhuizen, 2008).

Using the lower-bound national poverty line set at ZAR 515 per month (USD 121), Leibbrandt *et al.* (2010) also found no significant change in poverty incidence between 1993 and 2008. However, looking at the relative measures of poverty (*i.e.* 40% or 50% of median income), poverty reduction is more pronounced (Figure 1.9). This trend is due to the decline in poverty incidence among the African population, particularly males, even if the headcount poverty rates for the 50% of median income poverty line was 30% for Africans in 2008, compared to 1.3% for Whites. Moreover, when considering other poverty indicators, like the mean poverty gap, which measures the poverty depth (or the squared mean poverty gap, which measures its severity), the gains over the period are slightly higher than indicated by the headcount poverty rate. Poverty has increased in urban areas, and remains clearly concentrated among the African population – which accounts for more than 90% of the country's poverty share – followed by Coloured people.[19]

Children remain at a higher risk of falling into poverty than any other age group in Brazil, India and South Africa (Figure 1.10). Between 1993 and 2008, the proportion of children below the USD 2/day poverty line has decreased only in Brazil, and remained quite stagnant in India and South Africa. In contrast, old-age poverty has been reduced considerably in the three countries in the same period. Indeed, in relative terms, the poverty situation of children has worsened in the three countries compared with both the old-age population and the total population.

Figure 1.9. **Relative poverty in Brazil, India[a] and South Africa, 1993-2008**



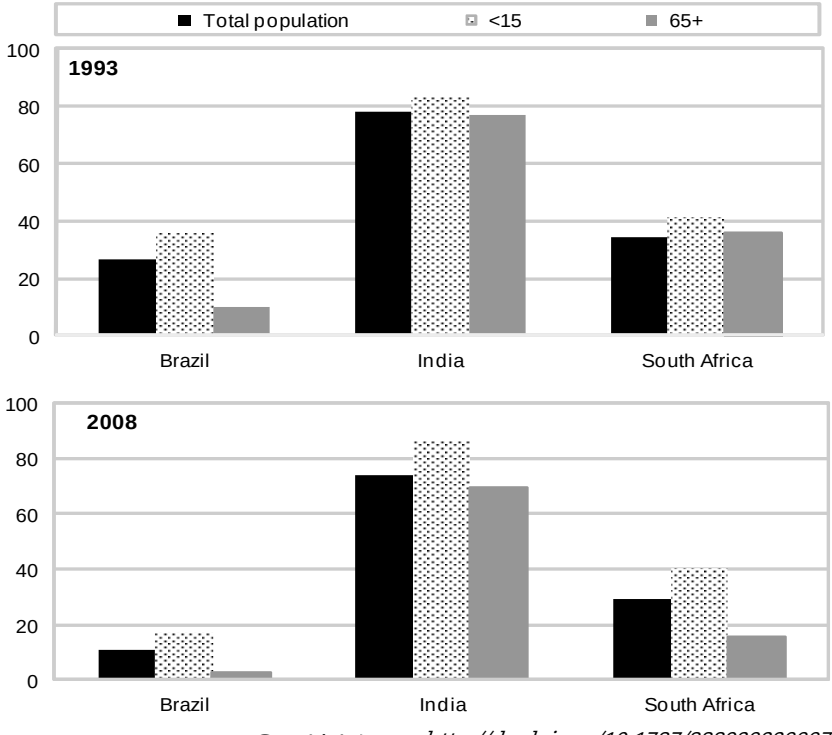
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a) For India data refer to median consumption expenditure. Data for 1993 refer to 1994 and data for 2008 refer to 2004/05.

Source: *OECD-EU Database on Emerging Economies.*

Figure 1.10. **Children are at higher risk of poverty, 1993 and 2008[a]**

Proportion of population below the USD 2/day poverty line



StatLink http://dx.doi.org/10.1787/888932332227

a) For India data for 1993 refer to 1994 and data for 2008 refer to 2004/05.

Source: *OECD-EU Database on Emerging Economies*.

Inequality trends have been less positive, although uneven

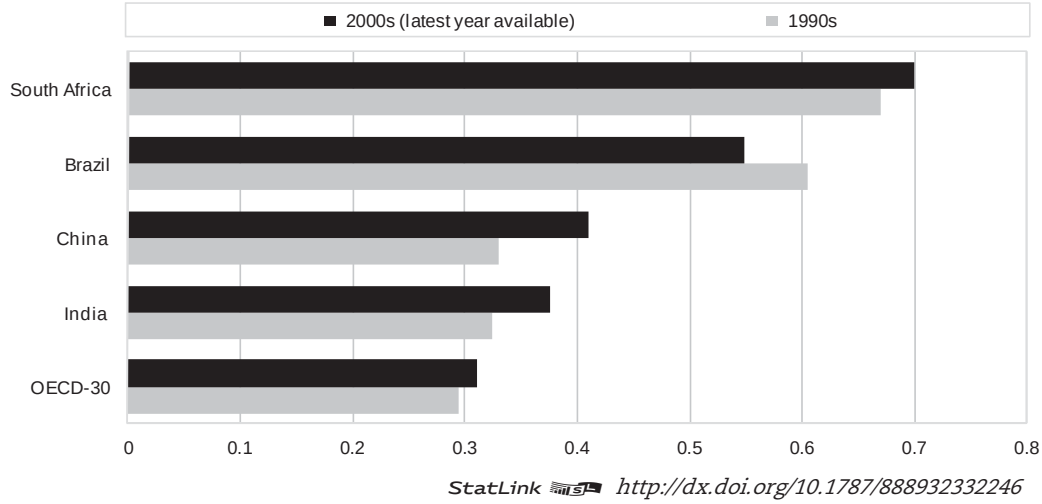
Overall levels and regional trends

The relationship and the trade-offs between economic development and inequality is complex, and causality can go in both directions *(*see Arjona *et al.*, 2002). That said, there are signs that the benefits from growth did not manage to trickle down to significant segments of the population. Despite the positive change in poverty reduction described above, economic growth has not always been accompanied by an improvement in the distribution of income in the BCIS countries, and inequality remains high in these countries.

Compared to the OECD countries, South Africa and Brazil have very high levels of inequality. In more recent years, the fall in poverty has been accompanied by a significant fall in inequality only in Brazil. Inequality levels in China and India are lower, but still exceed OECD average levels, and are on an increasing trend (Figure 1.11).[20] Indeed, between 1993 and 2008, the Gini coefficient of per capita income fell by 9% in Brazil, with the decline accelerating considerably after 2000. In contrast, it increased by 24% in China, by 16% in India and by 4.5% in South Africa, compared to 5.5% in the OECD countries.

Figure 1.11. **Change in inequality levels, BCIS and OECD countries, 1990s versus 2000s**[a]

Gini coefficient of household income[b]



StatLink http://dx.doi.org/10.1787/888932332246

a) Data for the 1990s refer to 1993 for the BCIS countries and to the mid-1980s for the OECD-30. Data for 2000s refer to mid-2000s, except for Brazil and South Africa, which is 2008.

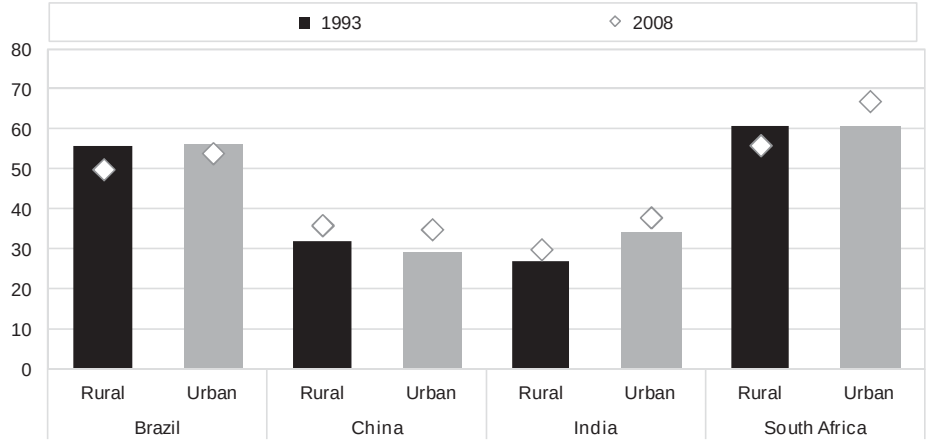
b) Gini coefficients are based on equivalised incomes for OECD countries; per capita incomes for Brazil, China and South Africa; and per capita consumption for India.

Source: *OECD-EU Database on Emerging Economies* for Brazil, India and South Africa; *World Development Indicators Database* for China and OECD (2008c) for OECD countries.

In China and India, income inequality has increased in urban and in rural areas, whereas in South Africa inequality increased in the first but decreased in the latter (Figure 1.12).

Figure 1.12. **Inequality in the BCIS countries by region, 1993-2008**[a]

Gini index of per capita household income or consumption[b]



StatLink http://dx.doi.org/10.1787/888932332265

a) China data refer to 1993 and 2005; India data to1994 and 2005.
b) India data refer to household consumption.

Source: *OECD-EU Database on Emerging Economies* for Brazil, India and South Africa and *World Bank Development Indicators Database* for China.

In China, regional inequality consists basically of two dimensions: the east-central-west divide and the rural-urban divide.[21] Although, progressively nuanced, the generally accepted view was that the overall extent of inequality in China until the early 2000s resulted from inter-province differences (rather than intra-province differences), and policy makers consequently emphasised the reduction of these inter-province imbalances (Box 1.6).

Box 1.6. **Inter-provincial inequalities in China**

There is no clear consensus on the magnitude of inter-provincial inequality in China or current trends due to the different ways of measuring it. For example, Rui and Zheng (2009) found that different income indicators give rise to different results on inequality trends: when using consumption-based measures, there is low inter-provincial inequality; when using GDP per worker, a strong upward trend is observed; but the largest fluctuations in inter-provincial inequality are found when using household income-based measures. In all cases, inequality between provinces is higher when measured by indicators un-weighted by population.

On the other hand, there is increased evidence that most inter-provincial inequality results from intra-provincial inequality, due in particular to the rural-urban divide inside each province. According to official statistics, household per capita incomes in urban areas were double those in rural areas in the early 1980s, but this ratio increased to more than triple in 2007.

However, these official estimates overstate the difference between rural and urban incomes, because they do not fully capture the migration flows registered from rural to urban areas. According to OECD (2010d), the underestimation of the prevalence of migrants is quite significant and tends to raise the gap between rural and urban incomes. Correcting for this bias and adjusting for spatial price differences, the ratio between urban and rural incomes is on the order of two, pointing to considerable stability in recent years. When making this adjustment, the inter-provincial influence on overall inequality decreases. A similar result was found by Sicular *et al.* (2007) using the Theil T-decomposition index of inequality and considering price differences: the influence of provinces on inequality falls from 45% to 31%, and then to 26% when the weight of migrants in urban areas is correctly measured. These authors estimate that the rural-urban divide is responsible for most Chinese inequality, having contributed 50%-70% to overall regional inequality.

In India, during the past decade, inequality increased significantly also due to the increase observed in urban areas.[22] Other than focussing on this rural-urban divide, several studies analysing inequality trends in India have shown the accentuation of regional imbalances.[23] Indeed, there is a growing concern in India that the benefits of growth have been concentrated in the already richer states, leaving the poorest and most populous states further behind (*i.e.* Bihar, Madhya Pradesh, Uttar Pradesh and Kerala).[24] In richer states, high growth rates have led to a boom in commercial and service sector activities, whereas in most of the poorest states agriculture is the main way of life (even if it does not always offer adequate returns), and industry is almost absent, leading to limited trade and services. Moreover, most of the backward areas still lack basic amenities such as education, health care, housing, rural infrastructure and drinking water and electricity. All this contributes to maintain significant inequalities between regions.

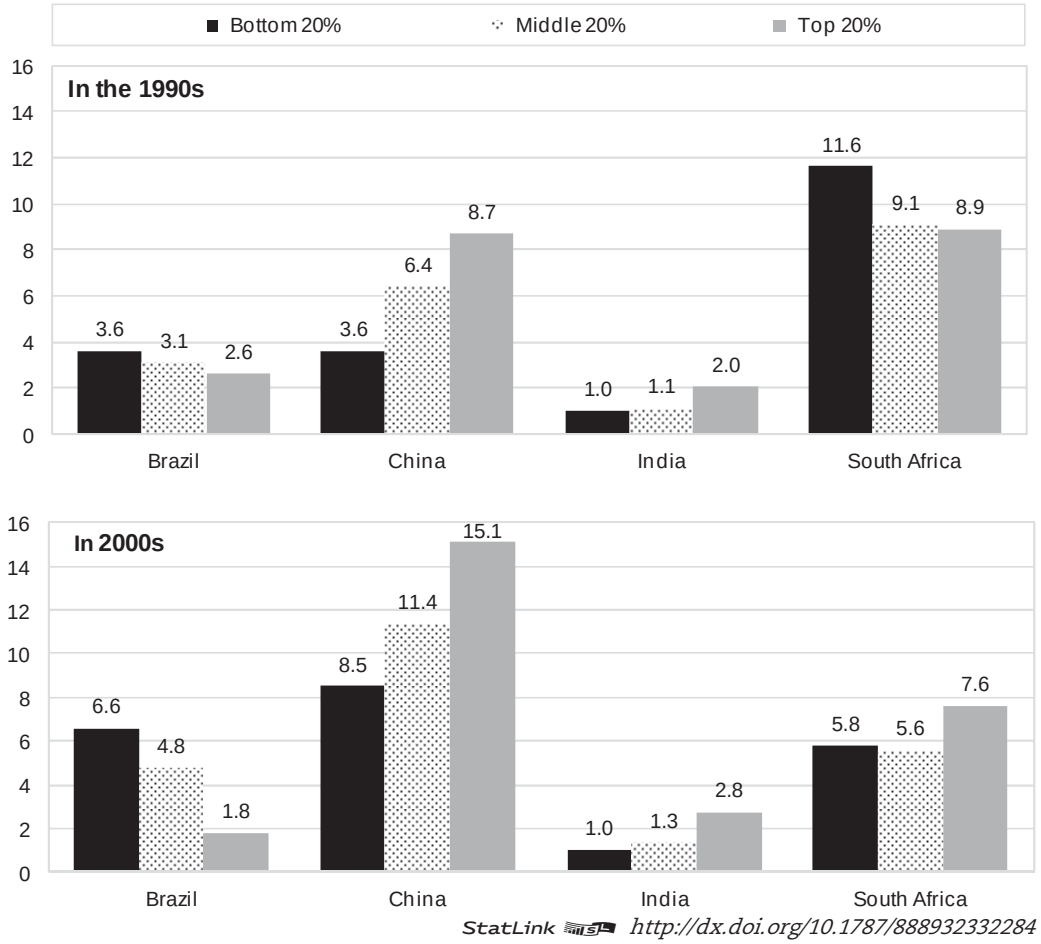
Development of top incomes

Another way to describe the increase in inequality is to compare the ratio of the highest to the lowest household incomes. During the period 1993-2008, for which comparable data are available, the ratio of the top quintile to the bottom quintile of real household income decreased in Brazil, remained roughly stable in South Africa, and increased in India, confirming the trends in income inequality already mentioned. This has resulted in different paths of growth of real household income by quintile. Whereas in Brazil, the highest increase in real household income was observed in the bottom quintile, especially since 2000, in China and India both in the 1990s and 2000 and in South Africa in the more recent period the top quintile experienced the highest growth (Figure 1.13).

As a result, especially in the more recent period, per capita household income has become increasingly concentrated in the top quintile of the distribution, with its income share growing in China, India and South Africa. Whereas in China and India the top quintile share of total income reached 41% in 2008, similar to the share observed in the OECD countries in the mid-2000s, it is much higher in South Africa (75% in 2008). Although Brazil has a high concentration of income among the top quintile, it was the only country to experience a decrease in the share of the top quintile during the 2000s, mainly due to the progressive resurgence of the middle-class (Figure 1.14).

This higher increase in income at the top of the distribution in India and South Africa is confirmed in the literature. For example, using time-series data on income tax over the period until 2000, Banerjee and Piketty (2005) found that in India the income share of the top 1% of the distribution increased gradually to 9-10% in the late 1990s, with a similar trend observed in the narrower group of the top 0.1%. Also in South Africa, Leibbrandt *et al.* (2010) found that the richest 10% of the income distribution accounted for 58% of total income in 2008 compared to 54% in 1993.

Figure 1.13. **Change in real household income by quintile in the BCIS countries**[a,b,c]



a) For Brazil the average annual change refers to 1993-2001 and 2001-08; for India to 1993/94-1999/2000 and 1999/2000-2004/05 and for South Africa to 1993-2000 and 2000-08.
b) For China data refer to urban areas only and for the periods 1997-2000 and 2000-08.
c) Data for India refer to real household consumption.

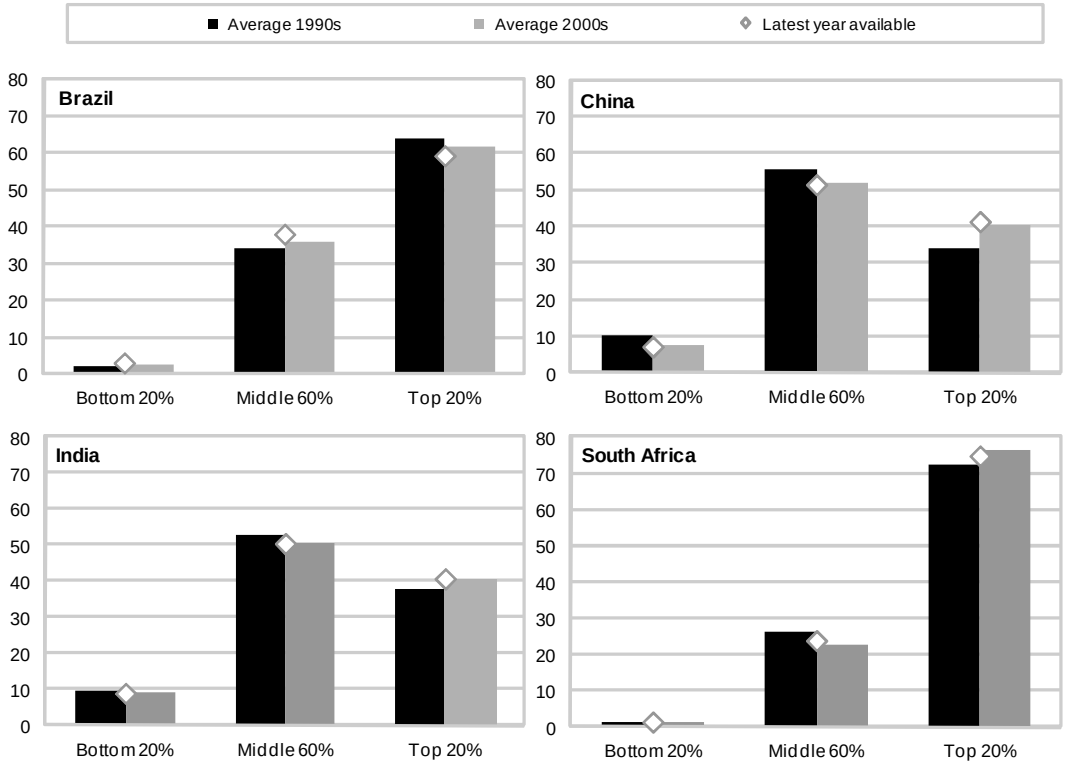
Source: *OECD-EU Database on Emerging Economies* for Brazil, India and South Africa. For China data come from the *B. Milanovic Database.*

Drivers of inequality changes

Developments in market incomes, in particular labour earnings, are the key drivers of household income inequality in the OECD countries (OECD, 2008c). As work is the main asset for the majority of the population, labour market performance appears to be crucial to an explanation of trends in inequality. The same holds for the BCIS countries. Empirical studies on emerging economies have found that rural-urban migration patterns, steeper returns to education and a deterioration of the labour markets (higher unemployment and informal employment) increase inequality, while reductions in the wage gap between men and women and in fertility rates often reduce inequality.

Figure 1.14. **Per capita income shares by quintile in the BCIS countries**

In percentage



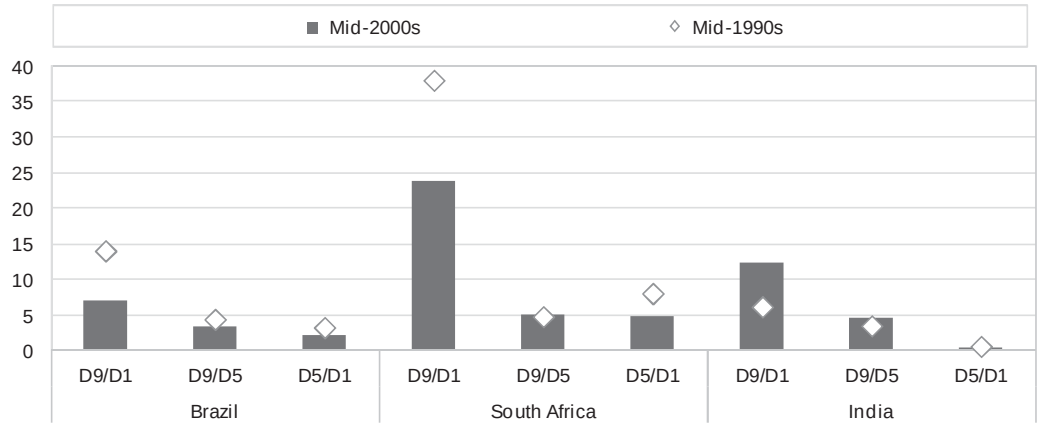
StatLink http://dx.doi.org/10.1787/888932332303

Source: *OECD-EU Database on Emerging Economies* for Brazil, India and South Africa. For China data come from the *B. Milanovic Database.*

In Brazil and South Africa, as in OECD countries, labour income represents 75%-80% of total net income.[25] In Brazil, labour income has progressively increased, registering average annual growth of 5% since 2003, whereas in South Africa it has slightly decreased since 1993.

When looking at workers' earnings between the mid-1990s and the mid-2000s, a compression on earnings is observed in both Brazil and South Africa, while increased inequality is registered in India (Figure 1.15). It is interesting to note that whereas in Brazil, both the ratio between the top decile and the medium decile (D9/D5) and between the medium and the lower decile (D5/D1) experienced a similar decrease, in South Africa the decrease in wage inequality has been due to the compression of the lower-wage part (D5/D1).

Figure 1.15. **Earnings inequality by decile ratios in Brazil, South Africa and India, 1993-2008**[a,b]



StatLink http://dx.doi.org/10.1787/888932332322

a) In India the weekly earnings distribution has been calculated irrespective of how many days in a week workers have actually worked.

b) The age group for wage calculations is 15-64 for Brazil and South Africa and 15-59 for India.

Source: *OECD-EU Database on Emerging Economies*.

However, although in Brazil earnings of the top decile of the distribution have halved since 1993, they are still seven times higher than earnings for the population at the bottom. In South Africa, although this ratio also halved between 1993 and 2008, it decreased very fast until 1997, but increased slightly since then.[26]

In contrast, in India the ratio of the top decile to the bottom decile of the earnings distribution almost doubled from 1993/94 to 2004/05. However, among Indian wage earners, it is important to distinguish between regular workers, who get contractual employment over a period of time, and casual workers, who are employed on a day-to-day basis. Wage inequality is much higher amongst the regular wage earners and has been increasing dramatically in the past decade, while inequality in the casual wage sector has remained more stable.

Gender and race discrimination in the labour market are important dimensions that generally have a significant impact on earnings inequality. As in the OECD countries, women tend to earn significantly less than men in the BCIS countries. For example, in Brazil real wages for full-time women were half those of men in 1993, but the gap has progressively decreased since then, and in 2008, Brazilian women earn two-thirds of men's real wages. In South Africa this gap has fluctuated significantly depending on the year considered, but in both 1993 and 2008 women were earning 60% of men's wages, in real terms. As for the breakdown of wage inequality by race, some improvement has been observed since 1993 in South Africa, with Africans earning on average around four times less than Whites measured by real wages in 2008, compared to five times less in 1993. However, household income inequality is clearly racially biased in South Africa, with Africans occupying the lower deciles of the income distribution (Leibbrandt *et al.*, 2010).

When looking at sources of household income other than earnings, public transfers have to be looked at in detail, as they have the potential to reduce inequality. Indeed, they have played an important role in the recent evolution of income inequality, although their impact has differed, depending on the country.[27] Whereas in South Africa the importance of public transfers as a share of total income has increased (from 5.4% in 1993 to 7.9% in 2008), compensating the loss in remittances observed mainly since 2000, it does not seem that they have had a major impact on inequality. Leibbrandt *et al.* (2010) show that South African state transfers make up less than one percent of the overall Gini coefficient of per capita household income.

In Brazil, in contrast, public transfers, in the form of social grants, have been increasingly responsible for the decrease in income inequality, especially after 2000. Indeed, influenced by the expansion of the *Bolsa Familia* conditional cash transfer programme to poor households, income from social programmes increased between 2003 and 2008 at a rapid rate. This was followed by pension income, which is linked to the minimum wage. Even if income from work explains 70% of the reduction in inequality in Brazil between 2001 and 2008, social programmes are the second factor, followed by old-age pensions (accounting for 17% and 15.7%, respectively). The remaining incomes explain only 1% of the inequality reduction.

Inequality is not always linked to informality

The links between informality and inequality are complex, and an increase (or decrease) in the former does not translate automatically into higher (or lower) inequality. For example, in Brazil, both informality and inequality have decreased in the past decade, but most research does not find that the decrease in informality is the main explanation behind the improvements in income redistribution. Indeed, most empirical studies show that it is not informality that has had the most significant impact on inequality reduction in Brazil, but education. Indeed, there is agreement that education is the main factor behind income inequality reduction in the country (Box 1.7).

In China, Cai *et al.* (2009) used data from the Chinese Urban Labour Survey (CULS) of 2001 and 2005 to break down inequality by different factors and found that the effects of informality on income inequality are mixed. On one hand, working in the informal sector favours an increase in income, mainly for those at the bottom of the distribution, reducing overall inequality via the employment effect. On the other hand, as wages in the informal sector grow below those in the formal sector, they contribute negatively to overall inequality via the income effect. The result of these two opposing forces was different in 2001 and 2005. In 2001, the employment effect dominated, whereas in 2005 the income effect was stronger than the employment effect. In both cases, however, the contribution of informality seems to have been very low, compared to other factors. Indeed, the differences in human capital, followed by the rural-urban divide, explain much of overall inequality at the two times. However, more than half of overall inequality could not be explained, as shown by the importance of the residuals in their estimation. Labour market discrimination, as an unobserved variable, may explain part of these residuals.

Box 1.7. **Explaining inequality reduction in Brazil**

The causes of the very high level of income inequality in Brazil have been hugely debated. Different authors have put forward different explanations: Hoffmann (1995) and Camargo and Neri (1999) examined the influence of inflation; Bonelli and Ramos (1995) studied the impact of economic cycles; Henriques (2001) discussed the role of labour market discrimination; and Scorzafave and Menezes-Filho (2005) discussed the role of increasing female labour force participation. Other researchers have emphasised access to land and capital property as well as government policy as predictors of Brazilian inequality. Some authors have tried to explain recent trends: for example, Firpo and Reis (2006) found that the evolution of the minimum wage accounted for 36% of the decline in inequality as measured by the Gini index between 2001 and 2005. However, they point that although real increases in the minimum wage have contributed to diminishing wage inequality since 1990, it is expected that this kind of policy will gradually become less efficient as it is continued.

Informality: Some papers have investigated the impact of labour market segmentation between formal and informal labour. In an effort to disentangle the various sources explaining wage inequality in Brazil, Barros and Mendonça (1995) found that if wage differentials between formal and informal workers were eliminated, *ceteris paribus*, wage inequality in Brazil would be reduced by seven percentage points. Though this is not negligible, they nevertheless found that educational differentials are the most important factor behind wage inequality. Ulyssea (2006) and Barros *et al.* (2006) used decomposition techniques and concluded that although informality rates are decreasing in Brazil, the earnings differentials between the two sectors are increasing, and this is contributing to attenuate further declines in inequality. Barros *et al.* (2006) reached the same conclusions, using a different decomposition technique. Machado *et al.* (2006) examined the impact of the formal-informal segmentation between 2002 and 2005 using quantile regressions. They showed that, for workers below the income median, there was an increase in the controlled wage gap between formal and informal workers, and a decline in the gap for those above the median, and this contributed to an increase in inequality in the period.

Education: Reis and Barros (1991), for example found that education explains about 40% of wage inequality in Brazil, whereas Menezes-Filho (2001) argued that education explains about 26% of Brazilian household income inequality and about 40% of earnings inequality. Lemos and Scorzafave (2006) studied the breakdown of inequality by population sub-group and found that education is undoubtedly the most important factor explaining income inequality and that it accounted for about 25%, according to the Theil-T. However, the role of education has been declining since 1998. Ramos (2006) showed that between 1995 and 2005 education was the most important element explaining the decline in wage inequality in Brazil. The author identified a reduction in educational inequality between workers and also a significant drop in returns to education. Tavares and Menezes-Filho (2007) reached the same conclusion, that is, that a fall in returns to education is the main factor explaining the reduction of inequality in Brazil.

Soares *et al.* (2006) examined discrimination and the evolution of educational and earnings differentials between white and non-white workers in Brazil. The authors showed that the educational gap between these groups is being reduced over time and that this fact is contributing to the reduction of the racial wage gap. The authors also found a reduction in discrimination in the Brazilian labour market, which also explained part of the fall in the wage gap.

Public transfers: Many studies have sought to understand the impact of public transfers on inequality, as their weight in household income has been increasing. For example, Ferreira (2006) showed that labour income made up about 85% of total family income in 1985, but decreased to 77% in 2001. In the same period, income from retirement increased from 10% to 18% of family income. Barros *et al.* (2006) argued that about one-third of the fall in inequality in the last decade was due to public transfers. Soares *et al.* (2007) argued that *Bolsa Família*, the Brazilian conditional cash-transfer programme, explained about 21% of the fall in the Brazilian Gini index between 1995 and 2004.

1.4. Conclusion

During the two decades until 2008, the BCIS countries have all experienced sustained economic growth, with real GDP growing at above the OECD average. This was particularly the case in China and India, which had annual growth rates approaching and exceeding two-digit levels in the years prior to the current economic crisis, and to a lesser extent in Brazil and South Africa, which experienced more volatile economic growth in the past decade. As a result, real GDP per capita is gradually catching up with the OECD countries, mainly in China and India, although GDP per capita remains below 20% of the OECD average in these two countries and around 30% in Brazil and South Africa.

These developments were favoured by major macroeconomic policy reforms, which started in the 1980s in China, in the mid-1980s in India, and in the early 1990s in Brazil and South Africa, and which consolidated in the 1990s with the countries' rapid integration into the world economy. Trade and investment flows grew as never before, spurring significant trade and capital integration and increasing the countries' weights in the world economy.

However, while strong economic growth has helped to reduce extreme poverty, measured by both the USD 1.25/day and the USD 2/day poverty lines, significantly in China, India and Brazil, and to a lesser extent in South Africa, the overall benefits of economic integration have not been shared equally. Indeed, except in Brazil, income (and consumption) inequalities increased in the 2000s from the 1990s. However, the patterns of economic growth, poverty reduction and inequality outcomes vary between countries, with few characteristics in common. The following four chapters analyse the country-specific patterns in detail.

National poverty estimates provide some insight into differences in the composition of poverty (and poverty reduction paths) in each of the four countries. This concerns in particular regional and urban/rural differences as well as differences in poverty incidence among different population groups. In Brazil, the poverty rate remains higher in rural areas and is regionally unbalanced, with the North-eastern regions having poverty rates three times higher than the South-eastern areas, even if the former experienced sharper decreases than the latter. In China, even if rural poverty reduction has been impressive, there is still a significant poverty divide between rural and urban areas, even larger than the regional divide. In India, poverty rates, and particularly poverty depth, decreased faster in rural areas than in urban areas, and by the mid-2000s had equalised the proportions of poor population in the two. Finally, in South Africa, poverty incidence also remains geographically concentrated, which is an inheritance from its recent history.

In all four countries poverty incidence is higher amongst those with lower educational levels. Children face a higher poverty risk than adults and the elderly. In addition, in South Africa, poverty incidence is racially biased, with the African population accounting for the bulk of poverty, with poverty headcount rates being 30 times higher than for the White population.

With respect to income inequality, the levels in the 2000s remained higher in the BCIS countries than in most OECD countries, with Gini coefficients ranging from 0.38 in India to 0.7 in South Africa. Apart from a noticeable reduction in inequality in Brazil in recent years, income inequality increased in China, India and South Africa, although along different paths. In these three countries, income inequality has mainly increased due to the faster growth of income inequality in urban areas. In South Africa, the

increased inequality also results from the increased inequality observed among the African population.

Looking separately at development among different income classes, Brazil was an exception, as it experienced an overall inequality reduction since the mid-1990s that largely benefited the lowest income classes. In the other three countries income has become increasingly concentrated in the top quintiles of the distribution, favouring an increase in high earners' share of total income.

As income from work represents the largest share of household income, the evolution of the labour market also matters for explaining trends in poverty and inequality. While being unemployed is a clear marker of poverty and perpetuates income inequalities in all countries, the mere presence of an earner in a household does not always offer a sufficient income for some groups of the population. Indeed, being unemployed is generally unaffordable for the majority of the population in the BCIS countries, and to make ends meet many workers are obliged to take any job available, and often in the informal sector of the economy. In terms of earnings, this basically means being paid less and having less social protection than in the formal sector, perpetuating the low income / low productivity poverty trap.

The links between informality and inequality are, however, complex, and an increase (or decrease) in the former does not automatically translate into an increase (decrease) in the latter. Behind informality, educational outcomes and returns to education in the labour market play a more determinant role. Low-educated and low-skilled workers have a greater chance of being in the informal sector and also have less well-paid jobs, and if no training or upgrading of their skills is proposed, they have a greater chance of remaining in this situation for a long time.

On the other hand, income from sources other than work (*i.e.* public transfers, remittances, etc.), although representing a low share of total household income in these countries, have played a non-negligible role in reducing poverty and inequality. This is clearly the case in Brazil, where the development of social policies through the provision of cash transfers to households has played a very important role in the reduction of poverty, although to a lesser extent on inequality. The role played by income support measures in tackling both poverty and inequality, within both the labour market and the social policy domain, will be examined in more detail in Chapter 6.

Notes

1. The consequences of the recent international financial and economic crisis in these countries will not be addressed here. See OECD (2010a), Chapters 1 and 2.
2. See OECD (2007a) for further details.
3. As suggested by Kowalski *et al.* (2009), the lagging trade progress experienced by South Africa since the mid-1990s may be related in part to the way it implemented

trade liberalisation. It maintained a complex system of quantitative restrictions and relatively high and dispersed tariffs on consumer products, resulting in relatively high effective rates of protection.

4. The ILO estimates of employment elasticity to GDP growth are: 0.7 in Brazil, 0.6 in South Africa, 0.3 in India, 0.1 in China (ILO, KILM 2007 Database).

5. For example, in China the Development and Reform Commission (DRC) estimated that around 13 million new young workers enter the labour market each year, increasing labour supply significantly and adding pressure on job creation. In India, the government set a target of creating 65 million employment opportunities during the 11th Plan period (2007-12), on the assumption of 9% GDP growth on average and unchanged elasticity of employment. This means an acceleration of employment creation compared to the previous Plan, under which 47 million employment opportunities were created, close to the 50 million target (Planning Commission, 2008).

6. Lower employment rates in emerging economies are typically the result of lower female participation in the labour force. This is often related to high fertility rates and can also reflect gender discrimination due to economic and societal norms.

7. This is the case even if their main activity is outside agriculture. As a result, the urban unemployment rate for international comparison purposes should be computed as the number of unemployed divided by the urban working population not engaged in agriculture (OECD, 2010d).

8. See Chapter 4 of this report for further details.

9. Rural to urban migration is characterised by a combination of both "push "and "pull" factors. In emerging and less developed countries the most common "push" factors are: famine, drought and natural disasters; war and conflict; agricultural change; unemployment; poor living conditions (*i.e.* housing, education and health). Among the "pull" factors are: better employment opportunities, higher incomes, better healthcare and education facilities, urban facilities and way of life, protection from conflicts, etc.

10. Bantu Authorities Act, Group Areas Act and Urban Areas Act.

11. It is however interesting to note that in Brazil, informality increased between 1992 and 2008 in the intermediate education groups (4-7 and 8-11 years of schooling), evolution that can be explained by the fast increase in the supply of intermediate levels of education and the slow job creation for this group of workers, due in part to the openness of the Brazilian economy (Menezes Filho, 2009).

12. Mello *et al.* (2006) found that in 2004 almost a third of Brazil's retirees were still working.

13. Some recent studies challenge the view that the informal sector provides only poor-quality jobs while all good jobs belong to the formal sector. For example, Perry *et al*. (2007) and Kucera and Roncolato (2008) present evidence that some fraction of informal workers choose to belong to this segment of the labour market, showing that they are not necessarily the worst-off.

14. Chen and Ravallion (2008) developed a new threshold for extreme poverty at USD 1.25/day in 2005 prices, using new data on purchasing power parities (PPPs), compiled by the International Comparison Program. These estimates do not reflect, however, the rise in food prices observed since 2005 and their impact on poor households.

15. The Chinese National Bureau of Statistics (NBS) defines a poverty line for rural areas according to an estimated basic expenditure by household on food based on a minimum nutrition standard. Then the expenditure on non-food goods is added to basic food consumption.

16. For India there is no information on income. Only information on consumption is available.

17. See Deaton and Kozel (2005) and Chapter 4 of this report for the debate on measuring poverty in India.

18. Using NSS data, the Planning Commission provides two estimates of poverty, based on two different consumption distributions: one distribution from the consumption data collected using a 30-day period and another obtained from the consumer expenditure data collected during a 365-day period. Using the 30-day period, the percentage of people under the poverty line fell from 35.8% in 1993 to 27.5% in 2004/05.

19. Over the entire post-Apartheid period up to 2008, there have, however, been continuous improvements in non-monetary well-being (*i.e.* access to piped water, electricity and formal housing) for the entire South African population.

20. OECD (2004b) reported that these growing income disparities in China between different economic sectors, rural and urban areas and between coastal and east areas to central and western areas, were the result of unbalanced economic development, observed mainly in the 1990s.

21. Since 2000, the change in the two Chinese household surveys (the Rural and the Urban National Surveys) has complicated the interpretation of inequality indicators (OECD, 2010d).

22. According to Ravallion (2009), inequality in India may be higher than what the Gini index shows, as other dimensions of inequality, not captured in that index, are very important in that country (*i.e.* mainly inequalities associated with gender or caste, as well as inequalities in access to education and health care).

23. Ahmad and Ashish (2008) and Planning Commission (2008).

24. This means that the richer and faster-growing states have experienced lower volatility in economic growth compared to poor states. They also have been more successful in creating jobs in the private sector and have generally been more effective in reducing poverty (Purfield, 2006).

25. No data is available on the breakdown of income for China and India.

26. Leibbrandt *et al.* (2010) report that the increased earnings inequality observed in South Africa since 1997 was largely fuelled by the fact that only the two highest deciles experienced growth in real wages, whereas all other deciles fell.

27. The social programmes in place in each country are described in the country chapters.

References

Ahmad, A. and N. Ashish (2008), "Towards Understanding Development in Lagging Regions of India", Paper Presented at the Conference on Growth and Development in the Lagging Regions of India, Administrative Staff College of India, Hyderabad.

Arjona, R., M. Ladaique and M. Pearson (2002), "Social Protection and Growth", *OECD Economic Studies*, No. 35, OECD Publishing, Paris.

Asian Development Bank (2009), "Enterprises in Asia: Fostering Dynamism in SMEs", *Key Indicators for Asia and the Pacific, 2009*, 40th Edition, Mandaluyong City, Philippines.

Banerjee, A. and T. Piketty (2005), "Top Indian Incomes, 1922–2000", *World Bank Economic Review* 2005, No. 19, Washington, DC.

Barros, R. and R. Mendonça (1995), "Os determinantes da desigualdade no Brasil", IPEA Discussion Paper, No. 377, Brasília.

Barros, R., M. Carvalho and S. Franco (2006), "O papel das transferências públicas na queda recente da desigualdade de renda brasileira". in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Bhorat, H. and C. Van der Westhuizen (2008), "Economic Growth, Poverty and Inequality in South Africa: The First Decade of Democracy", Paper for the 2008 Conference "The Regulatory Environment and its Impact on the Nature and Level of Economic Growth and Development in South Africa", Development Policy Research Unit and University of Cape Town.

Bonelli, R. and L. Ramos (1995), "Distribuição de renda no Brasil: avaliação das tendências de longo prazo e mudanças na desigualdade desde meados dos anos 70", *Revista Brasileira de Economia*, Vol. 49.

Cai, F., D. Yang and M. Wang (2009), "Employment and Inequality Outcomes in China", Paper presented at the OECD Seminar on "Employment and Inequality Outcomes: New Evidence, Links and Policy Responses in Brazil, China and India", April, OECD Publishing, Paris.

Camargo, J. and M.C. Néri (1999), "Distributive Effects of the Brazilian Structural Reforms", *Anais do XXVII Encontro Nacional de Economia.*

Cardoso, E. and V.K. Teles (2009), "A Brief History of Brazil's Growth", Paper presented at the OECD Seminar on Growth Performance and Sustainability in the Enhanced Engagement Countries, OECD Publishing, Paris.

Chen, M., J. Vanek and M. Carr (2004), *Mainstreaming Informal Employment and Gender in Poverty Reduction: A Handbook for Policy Makers and Other Stakeholders*, Commonwealth Secretariat/IDRC, London.

Chen, S. and M. Ravallion (2008), "China is Poorer Than We Thought but not Less Successful in the Fight Against Poverty", World Bank Policy Research Working Paper, No. 4621, Washington, DC.

China International Capital Corporation (2010), "The Causes, Consequences and Implications of China's Labour Shortage", *Macroeconomy Report*, March.

Deaton A. and V. Kozel (2005), "Data and Dogma: The Great Indian Poverty Debate", *World Bank Research Observer*, Washington, DC.

Du, Y. (2010), "Improving Social Protection System in China: Key Trends and Policies", presentation at the OECD/EU Joint International Conference on Inequalities in Emerging Economies: What Role for Labour Market and Social Policies?, May 2010, OECD Publishing, Paris.

Ferreira, C. (2006), "Aposentadorias e distribuição da renda no Brasil: uma nota sobre o período 1981 a 2001", *Revista Brasileira de Economia*, Vol. 60, No. 3.

Firpo, S. and M. Reis (2006), "O salário mínimo e a queda recente da desigualdade no Brasil". in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Guo, K. and P.N'Diaye (2009), "Is China Export-oriented Growth Sustainable?", International Monetary Fund Working Paper, No. 172.

Henriques, R. (2001), "Desigualdade racial no Brasil: evolução das condições de vida na década de 90", IPEA Texto para Discussão, No. 807, Brasilia.

Hoffmann, R. (1995), "A desigualdade e pobreza no Brasil no período 1979-90", *Revista Brasileira de Economia*, Vol. 49.

Hoogeven, J.G. and B. Ozler (2006), "Poverty and Inequality in Post-Apartheid South Africa: 1995-2000", in H. Bhorat and R. Kanbur (eds.), *Poverty and Policy in Post-Apartheid South Africa*, HSRC Press, Cape Town.

ILO (2008), *World of Work Report: Income Inequalities in the Age of Financial Globalisation*, International Labour Office, Geneva.

Kowalski, P. and N. Dihel (2009), "India's Trade Integration: Realising the Potential", OECD Trade Policy Working Paper, No. 88, OECD Publishing, Paris.

Kowaslki, P., R. Lattimore and N. Bottini (2009), "South Africa's Trade and Growth", OECD Trade Policy Working Paper, No. 91, OECD Publishing, Paris.

Kucera, D. and L. Roncolato (2008), "Informal Employment: Two Contested Policy Issues", *International Labour Review*, Vol. 147, No. 4, International Labour Office, Geneva.

Kundu, A. and P.C. Mohanan (2009), "Employment and Inequality Outcomes in India", Paper presented for the OECD Seminar on "Employment and Inequality Outcomes: New Evidence, Links and Policy Responses in Brazil, China and India", April, OECD Publishing, Paris.

Lattimore, R. and P. Kowalski (2008), "Brazil: Selected Trade Issues", OECD Trade Policy Working Paper, No.71, OECD Publishing, Paris.

Leibbrandt, M., I. Woolard, A. Finn and J. Arden (2010), "Trends in South African Income Distribution and Poverty Since the Fall of Apartheid", OECD Social,

Employment and Migration Working Paper, No. 101, January, OECD Publishing, Paris.

Lemos, R. and L. Scorzafave (2006), "Decomposição da desigualdade da renda do trabalho no Brasil: 1992-2004", mimeo.

Machado, A., A. Oliveira and M. Antigo (2006), "Evolução recente do diferencial de rendimentos entre setor formal e informal no Brasil (1999 a 2005): evidências a partir de regressões quantílicas", in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Mello, L., N. Menezes-Filho and L. Scorzafave (2006), "Improving Labour Utilisation in Brazil", OECD Economics Department Working Paper, No.533, OECD Publishing, Paris.

Menezes-Filho, N. (2001), "Educação e Desigualdade", in N. Menezes-Filho and M. Lisboa (eds.), *Microeconomia e Sociedade no Brasil*, 1 ed. Rio de Janeiro: Contra Capa, Vol. 1.

Menezes Filho, N. (2009), "Employment and Inequality Outcomes in Brazil", Paper presented for the OECD Seminar on "Employment and Inequality Outcomes: New Evidence, Links and Policy Responses in Brazil, China and India", April, OECD Publishing, Paris.

National Commission for Enterprises in the Unorganised Sector (2007), *Report on Conditions of Work and Promotion of Livelihoods in the Unorganised Sector*, August, New Delhi.

OECD (2004a), *OECD Employment Outlook*, OECD Publishing, Paris.

OECD (2004b), *Income Disparities in China: An OECD Perspective*, OECD Publishing, Paris.

OECD (2005), *OECD Economic Surveys, China*, Vol. 2005/13, September, OECD Publishing, Paris

OECD (2007a), *OECD Economic Surveys, India*, Vol. 2007/14, October, OECD Publishing, Paris.

OECD (2007b), *OECD Employment Outlook*, Chapter 1: "Labour Markets in Brazil, China, India and Russia and Recent Labour Market Developments and Prospects in OECD Countries", OECD Publishing, Paris.

OECD (2008a), *OECD Economic Surveys, South Africa*, Vol. 2008/15, July, OECD Publishing, Paris.

OECD (2008b), *OECD Employment Outlook*, Chapter 2: "Declaring Work or Staying Underground: Informal Employment in Seven OECD Countries", OECD Publishing, Paris.

OECD (2008c), *Growing Unequal? Income Distribution and Poverty in OECD Countries*, OECD Publishing, Paris.

OECD (2009a), *OECD Economic Surveys, Brazil*, Vol. 2009/14, July, OECD Publishing, Paris.

OECD (2009b), *Is Informal Normal? Towards More and Better Jobs in Developing Countries*, OECD Publishing, Paris.

OECD (2010a), *OECD Employment Outlook*, OECD Publishing, Paris.

OECD (2010b), *OECD Economic Outlook*, Vol. 2010/1, No. 87, May, OECD Publishing, Paris.

OECD (2010c), *OECD Economic Surveys: South Africa*, Vol. 2010/11, July, OECD Publishing, Paris,.

OECD (2010d), *OECD Economic Surveys: China*, Vol. 2010/6, February, OECD Publishing, Paris.

OECD (2010e), *Economic Policy Reforms 2010: Going for Growth*, OECD Publishing, Paris.

Park, A. (2008), "Rural-Urban Inequality in China", in S. Yusuf and T. Saich (eds.), *China Urbanizes, Consequences, Strategies and Policies*, World Bank, Washington, DC.

Perry, G., W. Maloney and O. Arias (2007), *Informality: Exit or Exclusion*, World Bank, Washington, DC.

Planning Commission of the Indian Government (2008), *Eleven Five Year Plan (2007-2012)*, Vol. I, "Inclusive growth", New Delhi.

Purfield, C. (2006), "Mind the Gap: Is Economic Growth in India Leaving Some States Behind?", International Monetary Fund Working Paper, No. 06/103.

Ravallion, M. (2009), "A Comparative Perspective on Poverty Reduction in Brazil, China and India", World Bank Policy Research Working Paper, No. 5080.

Ramos (2006), "Desigualdade de rendimentos do trabalho no Brasil, de 1995 a 2005", in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Reis, J. and R. Barros (1991), "Wage Inequality and the Distribution of Education", *Journal of Development Economics*, Vol. 36.

Rui, H. and W. Zheng (2009), "Measuring the Inter-provincial Income Inequality in China: A Sensitivity Analysis", *Journal of Chinese Economic and Business Studies*, Vol. 7, No. 1, February.

Scorzafave, L. and N. Menezes-Filho (2005), "Impacto da participação das mulheres na evolução da distribuição de renda do trabalho no Brasil", *Pesquisa e Planejamento Econômico*, Vol. 35, No. 2, Rio de Janeiro.

Sicular, T., X. Yue, B. Gustafsson and L. Shi (2007), "The Urban-Rural Income Gap and Inequality in China", *Review of Income and Wealth*, Vol. 53, No. 1.

Soares, S., N. Fontoura and L. Pinheiro (2006), "Tendências Recentes na Escolaridade e no Rendimento de Negros e de Brancos", in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Soares, S., R. Osório, F.Soares, M. Medeiros and E. Zepeda (2007), "Conditional Cash Transfers in Brazil, Chile and Mexico: Impacts upon Inequality", Working Paper No. 35, International Poverty Centre, Brazil.

Tavares, P. and N. Menezes-Filho (2007), "O papel do capital humano na desigualdade de salários no Brasil no período 1981 a 2006", Dissertação de Mestrado, FEA-USP.

Topalova, P. (2008), "India: Is the Rising Tide Lifting all Boats?", International Monetary Fund Working Paper No. 08/54.

Ulyssea, G. (2006), "Segmentação no mercado de trabalho e desigualdade de rendimentos no Brasil: uma análise empírica", in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Van der Berg, S., R. Burger, M. Louw and D. Yu (2006), "Trends in Poverty and Inequality since the Political Transition", Development Policy Research Unit Working Paper No. 06/104, SSRN.

Zhang, X., J. Yang and S. Wang (2010), "China Has Reached the Lewis Turning Point ", IFPRI Discussion Paper No. 977.

Annex 1.A1

Main sources used for the BCIS countries

Brazil

In addition to the population census conducted every ten years (the last in 2000), there are two main sources that can be used to evaluate the evolution of poverty and per capita income distribution in Brazil: the Pesquisa per Amostra de Domicilios (PNAD) and the Pesquisa Mensal d'Emprego (PME). While the PNAD covers different sources of income at national level, the PME covers only labour earnings in the six main metropolitan regions. The PNAD offers an annual picture of Brazilian households' situation, whereas the PME gives a picture of individuals. Due to its monthly periodicity, the PME has the advantage of giving a more updated picture than the PNAD, but it is less detailed. The PNAD survey was revised significantly in 1992, hindering comparisons with previous years, which is why data used here will cover only the period 1992-2008 (excluding the years 1994 and 2000, when the survey was not comparable or not published).

China

The measurement of inequality in China is subject to a number of biases, including sampling bias, the exclusion of certain categories of income, the classification of rural and urban areas, and the difficulty of capturing rural migrants in urban areas, as well as differences in the cost of living (Park, 2008). Indeed, the Chinese National Bureau of Statistics (NBS) does not present data for the national distribution of income, but separately calculates income distribution in urban and rural areas.

The NBS produces two surveys (the Rural Household Survey and the Urban Household Survey) used to analyse income inequality in China. However, these surveys do not capture the internal migration phenomenon well. The rural survey captures the income of those members of the rural household who live and work outside their village of registration. Since 2002, the urban survey has included a direct estimate of the household income of unregistered rural migrants, but it captures only a small fraction of this population. This has led to an increase in measured inequality in urban areas and double-counting at the national level. Indeed, the missing income of long-term migrant households makes for insufficient information and a distortion of actual income in urban areas. The RHS and UHS tend to be biased in two ways: on the one hand, long-term migrants who earn high income in rural areas are excluded in the RHS; on the other, they are not effectively included in the UHS, which, on average, may bias the urban residents' income estimation upwards. To better include migrants, other surveys conducted by the Chinese Academy of Social Science (CASS) have also been used, such as the Chinese

Household Income Project conducted in 1995 and 2002 and the more recent China Urban Labour Survey (CULS), conducted in 2001, 2005 and 2010 (data still preliminary).

India

The National Sample Survey is conducted every five years and is used to measure poverty, inequality and employment in India. The Rounds used here are the 50th, 55th and 61th, which correspond to the years 1993/94, 1999/2000 and 2004/05. The poverty and inequality measures derived from this source are based on average consumption expenditures (instead of income) at the household level. There is thus a need for caution when comparing the data for India to other countries. Generally, consumption inequality tends to be lower than income inequality, due to consumption smoothing by households, as low incomes can be supplemented by savings or borrowings.

South Africa

Three different datasets have been used here to measure poverty and inequality since the fall of Apartheid in South Africa: *a)* data from the Project on Living Standards and Development (PLSD) for 1993; *b)* data from the Income and Expenditure Survey for 2000; and *c)* data from the National Dynamics Study (NIDS) for 2008. Although comparing changes over time through different cross-sectional datasets presents some problems, these can be solved, as is explained in detail in Leibbrandt *et al.* (2010).

Chapter 2

The decade of falling income inequality and formal employment generation in Brazil

by

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This chapter studies the role played by labour market outcomes and education as well as by income policies on the level and distribution of household per capita income in Brazil between 1992 and 2009. It shows a pronounced reduction in overall income inequality since 2001 due to social programmes and especially to labour improvements. The attractive feature of targeted social programmes, such as Bolsa Familia, *is that in terms of GDP they cost much less than social security payments. Trends in years of schooling suggest that the decrease in income inequality observed during this decade will continue in the coming years. The 2008-09 international economic crisis has hit all earnings indicators, but by September 2009 they had once again reached pre-crisis levels.*

Overall, the chapter shows that the improvements in the levels of educational attainment coupled with an increase in official targeted monetary transfers and a stable macroeconomic environment explain much of Brazil's recent achievements in increasing the creation of formal employment and reducing income inequality. If during the past decade the poor were given to the market, what is needed now is to shift the policy agenda towards giving the market to the poor. This new agenda has many detours, but the main new routes described here for pursuing sustainable inclusive growth rest on improving Brazilian labour policies and the quality of the country's educational services.

Introduction

Just as the 1990s was the decade of stabilisation and the 1980s the decade of re-democratisation, the first decade of the new millennium has been characterised in Brazil by the reduction of income inequality. The accumulated reduction is comparable in magnitude with the increase in inequality observed in the 1960s that left Brazil one of the most unequal countries in the world. However, Brazil is still very unequal and to reduce inequality further, economic growth should generate additional income growth at the bottom end of the income distribution.

The other characteristic of this decade has been the creation of more employment, especially formal jobs after 2003, which resulted from the reduction of education disparities. To deal with the fundamental causes of inequality, however, it is necessary not only to keep work incentives, but also to deal with the ways inequality is transmitted between generations.

This chapter describes the evolution of income distribution in Brazil between 1992 and 2009 and analyses the role played by labour market outcomes and institutions, social policies and macroeconomic developments on the level and distribution of per capita household income. Special emphasis is given to the links between the impacts of labour market performance and social policies on income distribution indicators. The chapter is divided into six sections. Section 2.1 describes income policies in place in Brazil. Section 2.2 describes the evolution of income-based social indicators related to inequality, social welfare, poverty and economic class composition. Section 2.3 focuses on the role played by different income distribution determinants such as income sources, socio-demographic characteristics and educational and labour market factors. Similarly, Section 2.4 describes the evolution of labour market indicators and their close determinants, and Section 2.5 provides a description of the main components of the social policy agenda for the future, including education, income and labour market policies. The final section concludes.

2.1. Income policies

Background on income policies and income inequality

During the last half century, changes in Brazilian social indicators based on per capita income, such as inequality, poverty and social welfare, have reflected the high volatility of the macroeconomic environment. Until 1994, the source of instability was the rise and fall of successive stabilisation attempts, while after this period the main source of instability was external crisis (*i.e.* Mexico in 1995, Asia in 1997, Russia in 1998, Argentina in 2001 and the United States in 2008). To understand the mechanics of these sharp macroeconomic fluctuations, as well as their consequences on income-based social indicators, it is important to understand the role played by various state-sponsored income policies. During the pre-1995 period of inflationary instability, income policies were behind both core chronic inflation and the stabilisation attempts. They were part of both the problem and the attempted solutions. Anti-inflation plans, such as the *Cruzado, Collor and Real Plan,* tried to interfere directly with the process of price formation – and income determination – through various channels such as price freezes, exchange rate policies, wage de-indexation rules and currency change. Only the *Real Plan* was successful in bringing down and controlling inflation. Similarly, besides price stabilisation, state-

sponsored regressive income policies were another factor in the country's high inequality and the attempts to fight it. In more recent anti-inequality programmes, other types of income policies have been used, in particular, state income transfers from the public budget. Currently, there is considerable evidence that specific income policies play a role in short-run income inequality. The results differ depending on which specific policies are discussed – for example, Conditional Cash Transfers (CCTs) or social security benefits linked to the minimum wage, or the traditional role played by the minimum wage itself on the labour market. These impacts may also change over time with changes in the coverage and values of the policy parameters and economic circumstances.

Between 1992 and 2008, there was a fall in Brazilian poverty levels, despite meagre growth over the period. Brazil reached the first millennium development goal in this period, as shown by the fall, by more than 60%, of the share of the population with incomes below USD 1/day in PPPs. The per capita income of the poorest 10% varied cumulatively by 72% in the 2001-08 period, with this variation falling monotonically when moving up the income ladder (to 11.1% for the top 10%). This redistributive movement is noteworthy, since it is well known that Brazil is one of the countries with the highest income inequality in the world. After income inequality rose steeply in Brazil in the 1960s, it remained high but stable between 1970 and 2000, with a Gini coefficient for per capita income of around 0.6 (Hoffman, 1989; Bonelli *et al.*, 1989; Barros and Mendonça, 1992; Barros *et al.*, 2000). In the period 2001-08, however, inequality has declined. The inequality reduction observed in this period is comparable in scale to the sharp rise observed in the 1960s (Langoni, 1973; Fishlow, 1972; Bacha and Taylor, 1978) together with the deterioration observed in the 1970s and 1980s. This change reflects a combination of improvements in the labour market performance of low-skilled workers, an increase in their respective educational attainment and the adoption of increasingly targeted official income programmes.

As a result, Brazilian inflation is now at its lowest level in decades, and inequality in per capita income is very close to its lowest level since 1960 when income distribution data first became available. With respect to both price stability and the equity of results, income policies have played an instrumental role.[2]

Price stabilisation and redistribution are two sides of the same coin, since there is no way to obtain a permanent reduction in inequality with high inflation – although these are necessary conditions, not sufficient ones. President Cardoso stabilised the currency, and President Lula continued this process and redistributed the stable currency through a social programmes structure initiated under his predecessor. Just as Brazilian society has taken a long time to learn about the importance of macroeconomic fundamentals for achieving stability, the achievement of a sustained decrease in inequality depends on other fundamentals (*i.e.* equality of opportunities, represented by access to stocks of productive assets such as health, education and physical assets) and their impact on work decisions and outcomes. The structural side of income policies is yet to be demonstrated and consolidated in Brazilian social policy, which would mean reinforcing the structural side of compensatory policies with individual incentives oriented to the accumulation of productive capital.

In this chapter, special attention is paid to incomes most directly affected by social policies, such as social security benefits and other non-labour income sources, which includes cash transfers from social programmes and capital income – although the latter is underestimated in the Brazilian household sample survey, the PNAD. The remaining

sources of non-labour income, such as rents and private transfers (remittances, donations, child maintenance support, etc.), are part of what is called non-social income.

Among all income sources for which data is collected by the PNAD, social security is the main component of social income in Brazil, second after labour earnings. In 2008, it represented 19.6% of all income sources and 92.5% of social income. Social security benefits include a contributory Pay As You Go old-age pension system and non-contributory benefits, both subject to the government's discretionary income policies. One key policy variable is the progressive differentiation of social security adjustments, meaning that higher benefits receive lower real gains. Non-labour income includes different types of income, ranging from cash transfer programmes, such as *Bolsa Familia*, to capital income such as flows derived from interest paid on government debt.[3] The pro-poorness aspects of these items are expected to be very different, despite the fact that both are not only subject to public policy choices but are mostly mediated by the state as well.

Trends in income policies

What is the role played by state-sponsored income transfer policies, such as *Bolsa Familia* and the minimum wage adjustments, in the changes observed? What are the specific channels through which these policy options work? These are some of the questions that will be answered in order to assess the causes and consequences of the recent reduction in inequality. A summary of past research combined with data updates will help to understand the social changes observed in the past years and current challenges, limitations and opportunities.

Other important achievements include the universal provision of primary school education in the second half of the 1990s and the turning point observed in the job market in recent years, which is associated with the greater generation of formal jobs and higher equity in labour earnings. The latter is probably the most important outcome.

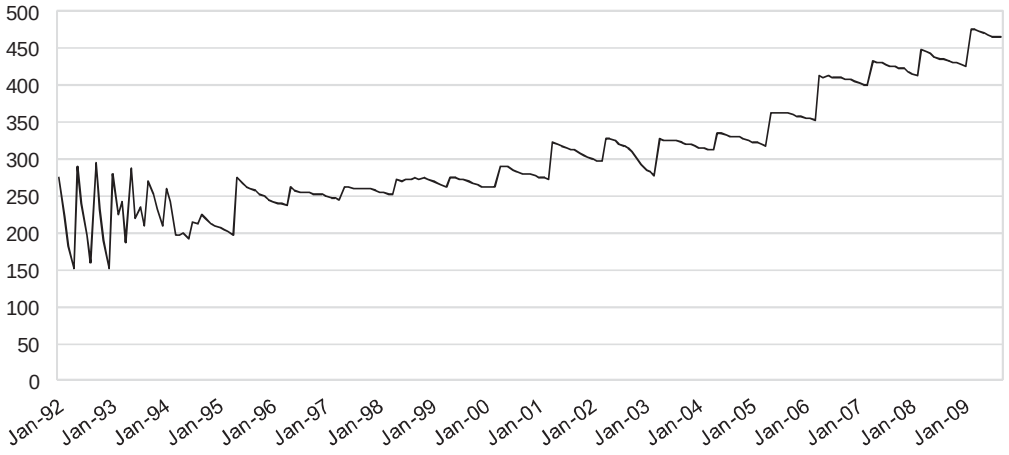
Non-contributory pensions

During the democratic period that started in Brazil in 1985, the elderly achieved substantial gains in state income transfers. The 1988 Federal Constitution established the minimum wage as the basis for social security benefits (contributory and non-contributory benefits), and more recent social policies have brought changes to the lives of the elderly population. These policies include:

- The reduction in 1998 of the minimum age for entitlement to the old-age pension system (from 70 to 67, and more recently to 65).
- The Elderly Statute in 2003, which establishes social rights and promotes equity between the elderly and the general population in different fields (*i.e.* ranging from free public transportation to the attempt to control the price of private health insurance).
- The adoption in 1998 of an income policy to ensure higher real adjustments to the floor of social security payments (one minimum wage) that coincides with the *Beneficio de Prestação Continuada* (BPC) and non-contributory rural social security benefits.
- An increase in the minimum wage by more than 50% in real terms after 2003 (more than 100% real gain since 1992) (Figure 2.1).

Figure 2.1. **Brazil's real minimum wage monthly trend since 1992**

In Brazilian Reais



Source: Labour Ministry and INPC/IBGE.

Today, Brazil transfers more income to the elderly relative to its GDP than does any other Latin American country (Neri *et al.*, 1999). The expansion during the last 15 years of non-contributory programmes to the low-income elderly population explains a substantial part of this. Calculations based on the PNAD between 1992 and 2006 show that the elderly (60 and above) population's share in total income increased from 7.9% to 9.9%. The share of the individual income for this age group rose from 13.3% to 17.1%, while their share of the per capita income rose from 10.8% to 14.5%. In per capita terms, the elderly were able to get an additional income of BRL 172 from the state in this period, while children got direct transfers of BRL 17. Even after *Bolsa Família* was established in 2003, the elderly were able to get higher absolute income gains and relative poverty reductions. Some authors have argued that the elderly redistribute their incomes within households. Even under this assumption, the poverty level in 2008 was over 500% higher for children than for the elderly.

Neri *et al. (*2008) showed an improvement in health perceptions that is much smaller for the indirect beneficiaries of transfers than those observed for direct beneficiaries living in the same households. The fact that the elderly live with smaller families would also diminish the impact of this breadwinner effect on children ("*efeito arrimo de família*"). For instance, in 2003 there were 3.2 members in families with someone over age 60 against 4.9 in the total sample of families. This is relevant for policy purposes, as people expect that transfers to the elderly poor in Brazil generate a sizeable externality to the individual welfare of other household members.

Bolsa Familia

Bolsa Família was created in October 2003 as a direct descendent of *Bolsa Escola*, *Bolsa Alimentação*, *Vale Gás* and other social programmes designed in the aftermath of the 1999 Brazilian macroeconomic crisis and was gradually implemented during the last years of the Cardoso administration. President Lula integrated these different programmes under the name of *Bolsa Família* and scaled them up. Between the end of 2004 and 2006,

the number of *Bolsa Familia* beneficiaries was doubled, from 6.5 million families to 11 million (nearly 25% of the Brazilian population).

The common feature of this new generation of income policies is to combine speed and targeting so as to achieve short-run income outcomes with conditionalities to reinforce human capital accumulation. Families with a per capita income below BRL 50/ month are entitled to a monetary transfer of BRL 50 plus a transfer of BRL 15 for children, up to a maximum of three children, subject to specific conditions depending on the children's age. Children between 0 and 6 years of age had to undergo vaccination while children and young teenagers between 7 and 15 years of age had to be enrolled in school and to present a maximum of 15% of absenteeism. Families with incomes between BRL 50 and 100 were entitled only to the conditional part of the monetary transfers. Another important feature of *Bolsa Família* was to elect the mother (in 91% of the cases) as the main beneficiary of the transfer. This strategy relies on the assumption that mothers better direct the resources to reduce intra-household inequalities in both opportunities and results. It is important to check both the redistributive and long-run consequences of such a strategy.

Secondly, besides the ability of the programme to reach the poorest with monetary and non-monetary transfers, another improvement is its ability to affect people's lives positively through imposing explicit conditionalities on relevant variables where there are clearly market failures, such as externality or credit constraints. However, current conditionalities in *Bolsa Família* seem to have some degree of redundancy in the sense that the conditions they impose have already been adopted by the beneficiaries before they even start the programme.

The ultimate objective should be to integrate all non-contributory income transfers into a single programme, preferably under the *Bolsa Família* framework. A first step in this direction was already taken in 2007, when non-contributory social security spending was split from the rest of the social security accounts. This allows better comparisons between the opportunity costs of different income policies. It does not seem equitable to provide income transfers associated with non-contributory transfers that are ten times higher than *Bolsa Família* benefits. Table 2.1 details the budgetary implications of different income transfer programmes in Brazil. *Bolsa Família* reaches nearly 25% of the Brazilian population and costs less than 0.4% of Brazilian GDP, whereas more than 12% of GDP is spent on social security and other social assistance payments.

Social spending: composition, comparisons and trends

The composition of social spending in Brazil by main groups shows that income transfers represent more than half of Brazilian social spending (Table 2.2).

An upward trend is observed in social spending in Brazil from the three government levels, mainly in the wake of the 1988 Constitution (Figure 2.2). Preliminary figures by the IPEA estimate that this figure went up to 23% in 2008.

Table 2.1. **Public budget devoted to income transfers in Brazil, 2005**

Areas	Main programmes and actions	Number of beneficiaries	Expenditure (in % of GDP)
Social security (mainstream system)	Retirement benefits and pensions – rural areas	7.8 million	7.0
	Retirement benefits and pensions – urban areas	15.2 million	
	Sick pay, maternity paid leave and other payments	1.7 million	
Social security (public service system)	Retirement benefits and pensions – Federal government	978 thousand	4.3
	Retirement benefits and pensions – states	1.5 million	
	Retirement benefits and pensions – municipalities	552 thousand	
Social assistance	Social assistance law (continuous cash benefit) elderly disabled person	3.4 million	1.0
	Youth inclusion national programme	400 thousand young people	
	Bolsa Família programme	11.6 million families	
Employment and w orker's rights	Unemployment benefit	6.9 million	0.4

Source: IPEA.

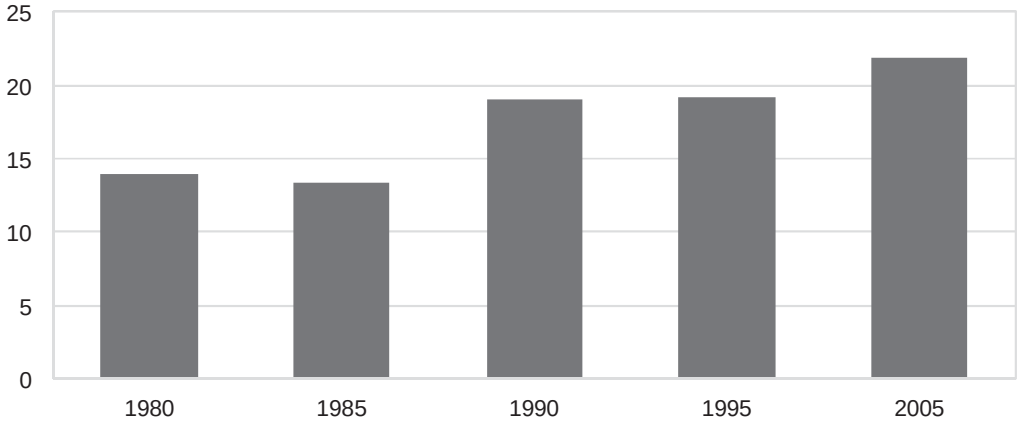
Table 2.2. **Brazil's social budget by main groups, 2005**

Areas	Expenditure (in % of GDP)
Income transfers	12.5
Employment	0.2
Rural development	0.2
Education	4.1
Health	3.6
Other	1.2
Total	21.9

Source: IPEA.

Figure 2.2**. Public social expenditure as a percentage of GDP in Brazil, 1980-2005**

Three government levels, in percentage



Source: IPEA.

International comparisons show that Brazil lies between the figures found for the rest of Latin America (15.9% according to CEPAL) and the OECD (25.5%), but is much closer to the latter. The only country in Latin America that spends a greater percentage of GDP than Brazil on social expenditures is Cuba (28.7%).

2.2. Describing income-based social indicators

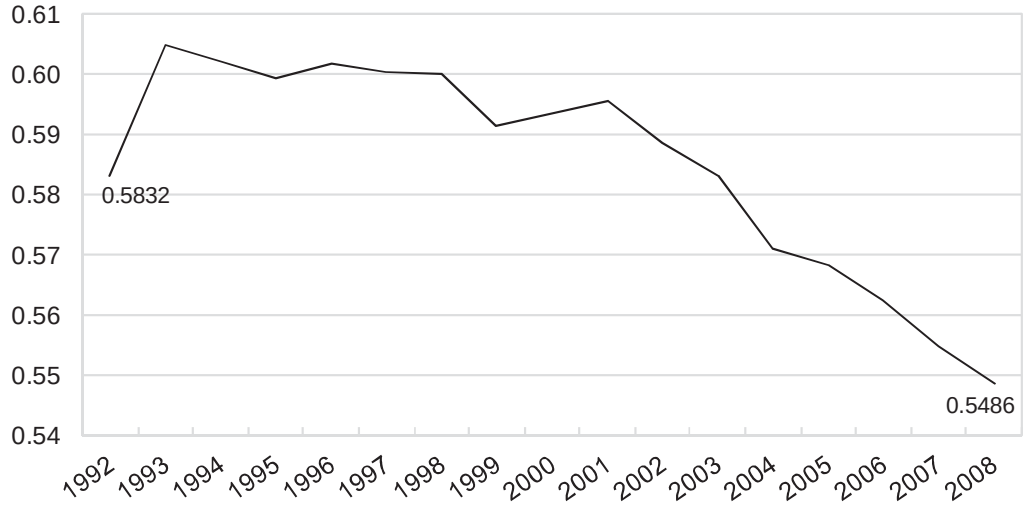
This section focuses on the main transformations of Brazilian income distribution during the last 17 years, with a special focus on the current decade, to answer the following questions: *a)* Who lost and who gained, especially in terms of previous income strata; *b)* In which regions have the changes occurred (*i.e.* macroregions, states, capitals, types of cities); *c)* Which income source grew most (*i.e.* labour earnings, *Bolsa Familia* or Social Security benefits)?

Change in income distribution

Inequality

Generally, the past decade stands out less for the overall income growth for all segments of the population than for the reduction in inequality (Figure 2.3). Inequality measured by the Gini index of per capita household income fell every year in this decade (1% on average between 2002 and 2008). In the country's statistical history, inequality has never fallen so much. Lorenz curves confirm that 2008 was more egalitarian than 2001.

Figure 2.3. **Gini index of per capita household income in Brazil, 1992-2008**

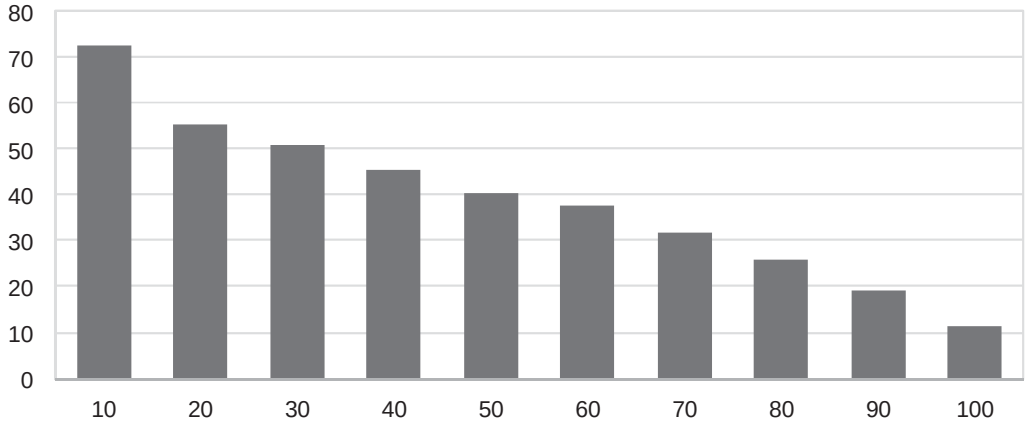


Source: CPS/FGV based on PNAD/IBGE microdata.

The accumulated income gain between 2001 and 2008 for each decile of the population is presented in Figure 2.4. The rate of growth decreases when moving from the poorest decile (72.4%) to the richest (11.4%) – this progressive character is not so well translated by the apparently small changes in the series of the Gini index or the Lorenz Curves from which the index derives.

Figure 2.4. **Accumulated variation of average income by income decile in Brazil, 2001-08**

In percentage



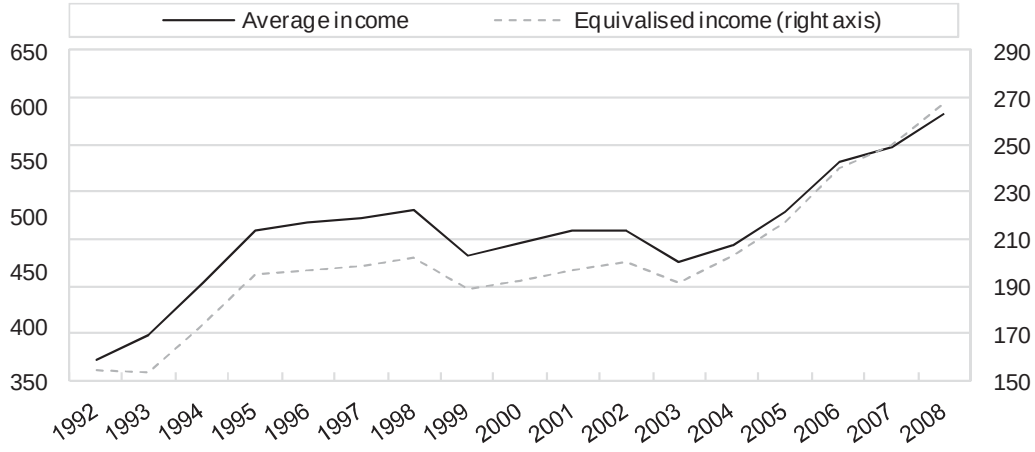
Source: CPS/FGV based on PNAD/IBGE microdata.

Sen's social welfare measure

In order to provide a final synthesis, the effects of a social welfare function as proposed by Amartya Sen are added. This function multiplies the average income by the equity measure, given as one less the Gini index [Average Income*(1-Gini)]. Inequality thus works as a reducing factor of welfare in relation to the average income. For instance, the average per capita income of BRL 592.12/month would be the value of social welfare according to Sen's simple measure, if equality were total. But, in reality this value corresponds to 45.1% of the income average (BRL 267.3), given the extreme current inequality in Brazil) (Figure 2.5).

Figure 2.5. **Brazil's average and equivalent household per capita income, 1992-2008**

In Brazilian Reais



Source: CPS/FGV based on PNAD/IBGE microdata.

Labour earnings inequality after the 2008 external crisis

Using the Monthly Employment Survey data (PME), it is possible to have a clear vision of the effects of the international crisis, nine months after it started, on individual and on per capita labour earnings in the six major metropolitan areas of the country. Income inequality deteriorated seriously in January 2008, losing part of the previous year's gains, but came back closer to the pre-crisis levels in July 2009. After reaching a peak in January 2009, the Gini index for household per capita income from work has progressively decreased. Theil's inequality index, which is more sensitive to changes at the bottom end of the distribution, shows a similar movement, with increases at the beginning of the year that were progressively reversed. Despite that improvement, in June 2009 the levels of both indicators were still a bit higher than a year before (Table 2.3). Figure 2.6 illustrates the variations of household per capita income from July 2003 to July 2008 and during the last year to July 2009.

Table 2.3. **Labour earnings inequality in Brazil's six main metropolitan regions, 2002-09**

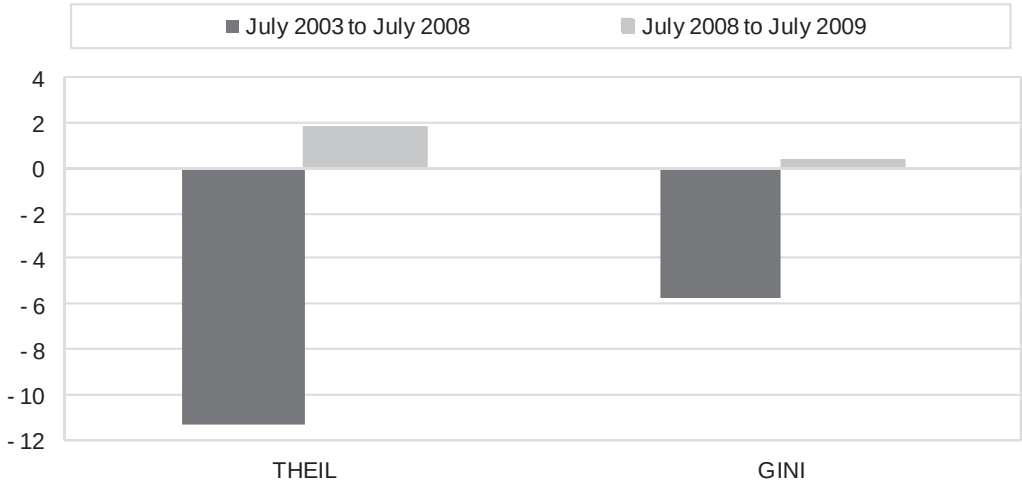
Persons 15-60 years of age

	Per capita labour earnings			Individual earnings	
	THEIL	GINI	Mean	THEIL	GINI
Jun-02	0.787	0.623	550.2	1.248	0.759
Jun-03	0.737	0.609	495.0	1.197	0.747
Jun-04	0.712	0.599	519.2	1.142	0.734
Jun-05	0.684	0.581	538.4	1.087	0.716
Jun-06	0.684	0.581	578.3	1.082	0.713
Jun-07	0.673	0.574	604.6	1.071	0.705
Jun-08	0.620	0.560	632.0	0.984	0.686
Jul-08	0.622	0.561	630.0	0.991	0.689
Aug-08	0.643	0.567	652.0	1.006	0.691
Sep-08	0.653	0.569	666.6	1.007	0.689
Oct-08	0.633	0.563	666.4	0.981	0.684
Nov-08	0.663	0.568	665.8	1.043	0.689
Dec-08	0.645	0.563	662.5	1.024	0.687
Jan-09	0.693	0.577	659.6	1.102	0.703
Feb-09	0.676	0.571	644.3	1.067	0.697
Mar-09	0.653	0.570	645.8	1.021	0.695
Apr-09	0.660	0.569	643.1	1.016	0.693
May-09	0.640	0.564	640.7	1.002	0.690
Jun-09	0.643	0.565	648.3	0.993	0.688

Source: CPS/FGV based on PME/IBGE microdata.

Figure 2.6. **Pre- and post-crisis inequality change in Brazil**

In percentage



Source: CPS/FGV based on PME/IBGE microdata.

Change in poverty

Defining the poverty line in Brazil

The definition of poverty developed by Ferreira, Lanjouw and Neri (2003) and the Centre for Social Policies at Fundação Getulio Vargas (CPS/FGV)[4] is used here. It incorporates regional differences in costs of living that affect purchasing power. Since there is no official poverty line in Brazil, the CPS/FGV definition of poverty is used by official bodies such as the Ministry of Finance and the Ministry of Social Development. The criterion for access to *Bolsa Família* today is BRL 137 per family each month, which is relatively close to the CPS/FGV regional poverty lines, regionally adjusted.

Real poverty decreases

Table 2.4 compares the FGV poverty measure with the ones set under the UN Millennium Development Goals (MDGs). If long-term poverty movements are measured against the targets, Brazil has succeeded in accomplishing the first MDG goal by reducing extreme poverty by more than 50% in the period 1992-2008. In fact, extreme poverty in Brazil has been reduced by 64.1% according to the USD 1/day PPP measure, but 53.9% according to the FGV poverty line.

Table 2.4. **Headcount poverty rates following different poverty lines in Brazil, 1992-2008**

In percentage of the population

	1992	2001	2003	2008
FGV Line	35.0	27.5	28.1	16.0
USD 1	11.6	7.9	7.3	4.2
USD 1.25	15.4	10.7	10.3	5.4
USD 2	26.5	20.3	20.0	10.6

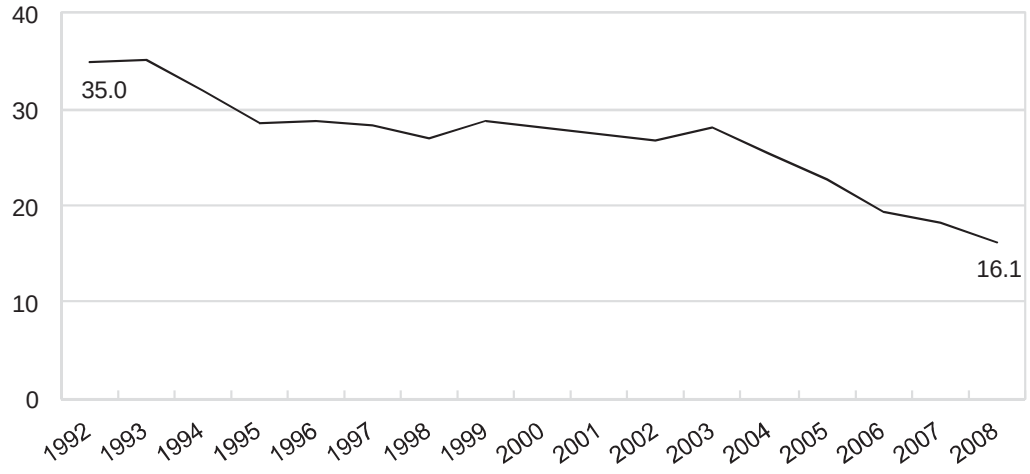
Source: CPS/FGV based on PNAD/IBGE microdata.

Using the FGV poverty line, an improvement in social indicators was observed in February 1996 after the Real Plan, but in 1999 there was a slight increase in poverty. In 2002, when the Cardoso administration ended, there was a decrease in poverty that was partly reversed during the first year of the Lula administration.

Since 1992, when the new PNAD questionnaire was implemented, two important changes in poverty levels have been observed. First, in 1993-95, the proportion of people below the poverty line decreased from 35.3% to 28.8% of the Brazilian population. A new period of poverty reduction begins in 2003, cumulating in a decrease of 19.2% between 2003 and 2005, comparable to the decrease observed between 1993 and 1995 (Figure 2.7). Then, since 2003, poverty has continued to descend, falling almost 30% between 2005 and 2008 and 43% since 2003.[5]

Figure 2.7. **Proportion of poor in the Brazilian population, 1992-2008**

In percentage



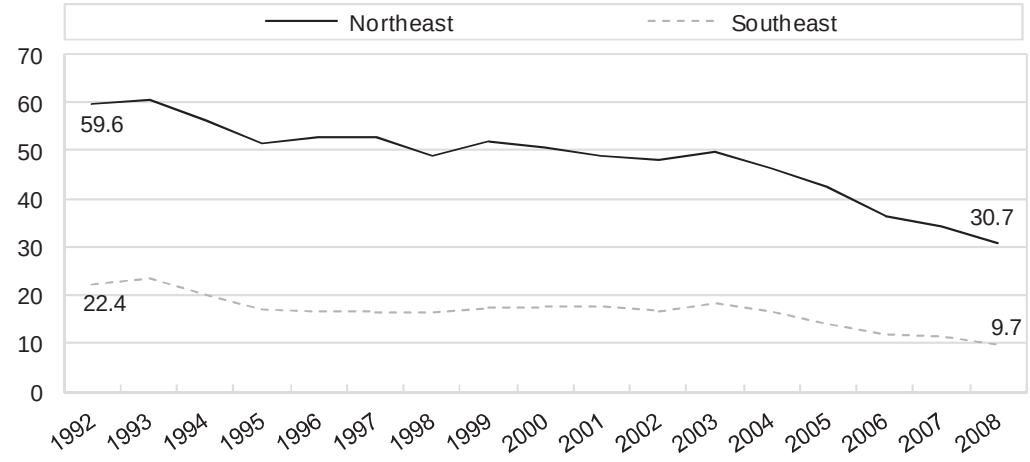
Source: CPS/FGV based on PNAD/IBGE microdata.

The geography of poverty

Poverty reduction in the Southeast and Northeast regions between 1992 and 2008 is shown in Figure 2.8. These regions hold 70% of the Brazilian population and represent the extremes of the country's living conditions.

Figure 2.8. **Headcount poverty rates by regions in Brazil, 1992-2008**

In percentage of the population



Source: CPS/FGV based on PNAD/IBGE microdata.

The contribution of each geographic unit to the reduction of poverty in the period 2003-08 and 2007-08 is presented in Table 2.5. The Northeast region stands out with 44.7% of poverty reduction observed during the 2003-08 period, meaning that eight million people crossed the poverty line, which is defined as those having below BRL 137 in household per capita income. For the country as a whole, between 2003 and 2008 there was a 43.03% reduction in poverty, corresponding to 19.3 million people leaving poverty. Among the 27 capitals of the Brazilian states and the peripheries of the six major metropolises, between 2003 and 2008, the city of Palmas stands out as the city with the highest rate of poverty reduction (-80.9%), whereas the lowest reduction rates were found in Rio de Janeiro (-34.8%) and Recife´s periphery (-36.4%). In terms of the poverty levels found in 2008, the lowest poverty rates were in Florianopolis (2.36% of the population) and Curitiba (3.92%) and the highest in Maceio (25.6%) and Recife's periphery (26.4%).

Table 2.5. **Contribution of spatial units to poverty reduction in Brazil, 2003-08**

In numbers of people and proportion of the total poverty decrease

	Population	Contribution (in %)
Total	19 454 189	100.0
North	1 441 725	7.4
Northeast	8 696 888	44.7
Southeast	6 233 898	32.0
South	1 606 360	8.3
Centre	1 476 818	7.6
Capital	4 504 513	23.2
Periphery of metropolies (non capital)	2 041 645	10.5
Non-metropolitan urban areas	8 547 525	43.9
Rural areas	4 372 630	22.5

Source: CPS/FGV based on PNAD/IBGE microdata.

Table 2.6 presents the five top and five bottom cities and states in terms of poverty rates in 2008, as well as their position in previous years and in variation rankings. When looking at the states in 2008, the poorest was Alagoas, with 38.8% of its population being poor, followed by Maranhão (33.7%). Just as in the case of ranking the capitals, the southern states present the lowest poverty rates, amongst which is Santa Catarina with 4.5%, followed by Parana with 6.1%.

Future poverty scenarios

It is expected that the proportion of poor people in Brazil (people with less than BRL 137 per month at average current prices) will decrease from the 2008 level (16%). If the growth of income is similar to that of 2007 (around 2% per capita), the level will fall by 3.3% to 15.5% in 2009.[6] A long-term scenario with decreasing inequality, like the one observed in the last seven years, seems more interesting (Table 2.8). Initially, in a neutral scenario in distributive terms, with population growth, if national per capita income grows 2.6% a year in the next seven years, total income growth would come to 4% a year and poverty would fall by 22.4% to 12.4%.

Table 2.6. **Poor population by states and cities in Brazil, 2003 and 2008**

In percentage

	States				Cities				
	2008		2003			2008		2003	
Top 5	Ranking	% of Poor	Ranking	% of Poor	Top 5	Ranking	% of Poor	Ranking	% of Poor
Alagoas	1	38.8	1	57.7	Recife periphery	1	26.4	5	41.5
Marranhao	2	33.8	2	55.7	Maceio	2	25.6	4	41.7
Piaui	3	32.4	3	52.0	Salvador periphery	3	25.2	1	47.7
Paraiba	4	29.2	4	47.3	Fortaleza periphery	4	24.6	2	46.7
Sergipe	5	26.6	6	41.6	Recife periphery	5	20.8	6	35.9
5 Bottom	Ranking	% of Poor	Ranking	% of Poor	5 Bottom	Ranking	% of Poor	Ranking	% of Poor
Santa Catarina	1	4.5	27	8.3	Florianopolis	1	2.4	36	6.5
Parana	2	6.1	26	14.1	Curitiba	2	3.9	35	10.5
Sao Paulo	3	8.8	23	17.7	Goiania	3	4.5	32	13.5
Rio Grande do Sul	4	9.0	25	14.2	Vitoria	4	5.5	33	12.0
Minas Gerais	5	9.3	22	17.7	Palmas	5	5.7	17	29.8

Source: CPS/FGV based on PNAD/IBGE microdata.

Table 2.7. **Percentage of poor population in urban and rural areas in Brazil, 2003 and 2008**

In percentage

	2003	2008	2003/08
Total	28.1	16.0	-0.4
Capital	22.5	11.3	-0.5
Periphery metro regions	22.1	12.4	-0.4
Urban area - non-metropolitan	25.5	14.0	-0.4
Rural area	51.5	34.8	-0.3

Source: CPS/FGV based on PNAD/IBGE microdata.

The reduction would be even higher if this growth were accompanied by a reduction in inequality. If the mentioned expansion of 2.6% per capita a year (20% accumulated) were combined with a decrease in the Gini index similar to that observed in the last seven years, for example, with an average level of income and income distribution like the one in Rio Grande do Sul, poverty would drop by 41.2%, taking the poverty rate below the two-digit level (9.5% of the total Brazilian population would then be considered poor). Even with a null per capita growth, the poverty rate would decrease by 18.6% in the period, down to 13% of the population. This decrease in poverty is enough to reach the pace required by the first millennium goal of reducing poverty by 50% in 25 years.

Table 2.8. **Brazil's poverty scenarios from 2008**

	Household per capita income	% Poor	Variation
Brazil	592.1	16.0	-
Growth per capita effect of			
-2%	580.3	16.5	3.2
2%	604.0	15.5	-3.0
4%	615.8	15.1	-6.0
10%	651.3	14.0	-12.9
20%	710.5	12.4	-22.4
25%	740.2	11.6	-27.9

Source: CPS/FGV based on PNAD/IBGE microdata.

Poverty eradication costs

Another useful poverty measure in the design of public policy is the poverty gap (P1) – that is, how much income the poor lack, on average, in order to meet their basic needs in the market. For 2008, using our income poverty line as a base (BRL 137 per month), the average deficit expressed in monetary terms of each poor Brazilian would be BRL 56.3 per month at average prices (BRL 57.44 in 2007).

This allows estimating the hypothetical costs of poverty eradication. Analyses from PNAD/IBGE microdata for 2008 suggest that BRL 9.01 on average per person (BRL 9.65 in 2007) would be necessary to eradicate poverty in Brazil, which corresponds to a total annual cost of BRL 20.2 billion. This indicates the potential costs of bringing the income of each Brazilian up to the poverty line of BRL 137 nationally. This exercise should not be read as a justification for specific policies, but rather as a reference for the social opportunity cost of adopting unfocused policies. Such data are useful for targeting policies and organise their sources of financing.

Changes in economic classes

Definition

Research based on recently released PNAD microdata reveals the distribution of the Brazilian population across different economic classes (AB, C, D and E). The main feature of the approach used here is the disaggregation into these four income groups. This approach is similar to poverty analysis, but instead uses four fixed lines in real terms (Neri, 2008b and 2009a) so as to give the participation of the population in each class. Objective numbers are thus used to view the borders of the economic classes, as measured in terms of total household income from all sources per month.

The CPS/FGV classification of economic classes is expressed in total household incomes but is calculated directly in per capita household incomes. The definition of income class incorporates regional differences in the cost of living, as explained in Neri (2008c). Class C is the central class, below AB and above D and E and is located immediately above the poorest 50% and below the richest 10%. This means that class C household income (from all income sources) varies from BRL 1 115 to BRL 4 807 (at

December 2008 prices). It is the middle class in the statistical sense. Class E matches the definition of poverty, and households in this class have household incomes between BRL 0 and 804. They are followed by class D with household incomes varying from BRL 804 and BRL 1 115. Finally class AB is the upper class with household incomes above BRL 4 807.

What happened to each class between 2003 and 2008?

Class AB: according to the latest PNAD, the proportion of people in class AB grew 7% in the last year, corresponding to 1.5 million people entering the highest income group. In the last 5 years alone, 6 million people rose into this class, which totalled 19.4 million people in 2008 (see Table 2.9).

Class C: this class represented 37.6% of the Brazilian population in 2003 and 49.2% in 2008 (or 91 million Brazilians – *i.e.* the predominant class in terms of population size). This accumulated growth in population terms (of 31% in that period), means that 25.9 million Brazilians became class C in the last five years (5.3 million people in the last year alone).

Class D: the proportion of people in class D was 24.4% in 2008, representing 45.3 million Brazilians. In terms of movements, there was a reduction of 0.9 million in one year, or a 3% decrease (1.5 million in the last five years).

Class E: 12.3% (or 3.8 million people) exited this group in 2008. This movement corroborates a trend since the end of 2003 when poverty fell 43% (meaning that 19.4 million people crossed the poverty line). As a result, in 2008, 29.9 million people remained poor (16.02% of the population). This figure would have been 50 million if poverty had not been reduced.

To sum up, the data show that 31.9 million people moved into classes ABC between 2003 and 2008, and in the 12 months before the last PNAD, 6.7 million made this transition.

Table 2.9. **Changes in economic classes in Brazil, 2003-08**

	Accumulated variation (in %)		Changes in population	
	2008-2003	2008-2007	2008-2003	2008-2007
Class E	-43.0	-12.3	-19 458 924	3 798 432
Class D	-8.9	-3.0	- 148 536	899 594
Class C	31.1	4.9	25 890 892	5 285 627
Class AB	37.1	7.0	6 095 662	168 397

Source: CPS/FGV based on PNAD/IBGE microdata.

The post-2008 crisis: a social "draw"

Nine months after the crisis started, there is already a clear vision of its effects on people's incomes in the six major metropolitan areas of the country. Income inequality deteriorated seriously in January, when part of last year's gains was lost, but is now once again closer to its pre-crisis levels. Even class AB, which had lost more with the crisis (2.7% in January 2009 alone), is today only 0.5% below the previous year's level

(14.97% of the population is in class AB with 55% of the country's income). Class C is already in a positive situation, with a 2.5% gain in 12 months (with 53.2% of the population, it is the predominant class in terms of population size). Although this draw may be considered a good result in a time of crisis, it also obscures a sudden halt in the previous improvements in the indicators: from July 2003 to July 2008, class AB grew 35.7%, class C increased 23.1% and income inequality dropped as never before in the Brazilian statistical series. Looking on the bright side, despite the current crisis the 2008 PNAD should provide a more or less faithful portrait of living conditions in 2009.

Figure 2.9. **Variation of the Brazilian population share by economic class before and after the crisis**



Source: CPS/FGV based on PME/IBGE microdata.

Per capita labour earnings mobility

The *Pesquisa Mensal de Emprego* (PME) uses a rotating panel methodology that seeks to gather information from the same households over the months (Annex 2.A1). The approach used consists of calculating the probabilities of transition into or out of the four economic groups (as well as of non-transition among these groups), observing the same people twice at a twelve-month interval. Longitudinal data from household per capita income will provide the basic empirical evidence for the pattern of social mobility observed in practice.

Presenting the information year by year until the month of June could be one way to measure possible impacts of the crisis on the transition between classes. Data since 2002 show that 2004 and 2008 stand out in the statistics, with only 59% of class E remaining in that class one year later. Looking at what happened in the early months of 2009, compared to the same period a year earlier, there was an increase of 1 percentage point in the number of people remaining in class E (60.83%) (Barros *et al.*, 1994). Analysing those who remain in class AB, there was negative growth in 2008 and 2009 (74.3% remained in class AB between 2008 and 2009, versus 81% in the previous years). The AB class was growing strongly, but began to lose strength and to present higher risks of a downfall in the most recent period.

2.3. Determinants of income distribution changes

Sources of income

When looking at these changes, it is important to find out why and how they occurred. This suggests looking at the determinants of income distribution and at the primary components of people's income (*i.e.* the role of pensions, social programmes, work and its components) in the various synthetic measures. (Table 2.10).

Table 2.10. **Income breakdown in Brazil, by different sources**

In percentage

Year	Income from all sources	Income from all jobs	Other private incomes	Public transfers (*Bolsa Familia)*	Social security (equal or below minimum	Social security (above minimum wage)
2008 (in BRL)	592.1	450.3	12.9	12.7	28.1	88.2
Composition in 2008	100	76.1	2.2	2.2	4.7	14.9
Annual growth (2003-08)	5.3	5.1	2.6	21.0	6.6	4.4
Annual growth (2007-08)	5.5	4.5	15.6	30.8	1.6	7.7

Source: CPS/FGV based on PNAD/ IBGE microdata.

Between 2003 and 2008, the average per capita income of Brazilians increased 5.2% in real terms per year,[7] from BRL 458 to BRL 592 per month. The income source that increased most was social programmes (21%), influenced by the expansion of *Bolsa Familia*, created in 2003. It was followed by the share of pension income attached to the minimum wage (6.6%). Minimum wage readjustments, which increased more than 45% in the period, put pressure on the basic value of benefits, as did the growing number of the elderly resulting from population aging. Income from social security above the minimum grew at a lower rate than general income growth. It is worth pointing out that income from work experienced an average increase of 5.1% per year, which provides sustainable support for living conditions beyond the official income transfers. Income from work corresponds to 76% of the average income received by Brazilians, and 75% of the income gain observed came from that source.

In the 2007-08 period, the growth in per capita income from work and pensions was smaller, and the growth in social programmes larger (reaching 30.8%). In any case, in both periods (2003-08 and 2007-08) the share of income from work remains close to the impressive growth in income in this boom phase, although there has been a strong increase in income from social programmes and pensions tied to the minimum wage.

Composition of income per economic class

From 2003 to 2008, the share of income associated with social programmes, such as *Bolsa Familia*, doubled on average (from 1.1% to 2.2%). This corresponds to the poor groups, using the national average line of the CPS – after the increases announced by the government and the new entry criterion for *Bolsa Familia*. As a result, the weight of these programmes in class E increased from 4.9% to 16.3% (Table 2.11).

Table 2.11. **Income breakdown in Brazil, by source and economic class, 2003 and 2008**

In percentage

Economic class	Social security (above minimum wage)	Social security (below minimum wage)	Public transfers (*Bolsa Familia*)	Income from work
2008				
Total	4.7	14.9	2.2	76.1
Class E	9.5	1.2	16.3	71.3
Class D	12.7	4.4	5.5	76.3
Class C	7.3	13.5	1.4	76.4
Class AB	0.4	18.9	1.7	75.9
2003				
Total	4.4	15.5	1.1	76.5
Class E	12.7	2.0	4.9	77.9
Class D	12.4	6.2	1.4	78.6
Class C	5.4	15.5	0.6	76.6
Class AB	0.3	19.6	1.1	75.7

Source: CPS/FGV based on PNAD/IBGE microdata.

The analysis of the participation of different income types by economic class (AB, C, D and E) may be useful to assess the prospective impacts of different public policy tools on income distribution, such as for example, the measures adopted in the crisis context in September 2008. In particular, the increase in the *Bolsa Familia* grant and other programmes not related to social security tends to benefit predominantly class E.

It is interesting to separate income from social security benefits into two groups: one based on benefits for those with income up to one minimum wage, and the other based on benefits for those above minimum wage, as this is a distinction that has been made since 1998. The class D group is the major beneficiary of the increase in the social security minimum (basic) benefit, with 12.7% f their income tied to it. Finally, the increase in pensions above this minimum value has mainly benefited class AB, as 18.9% of their earnings derive from this source. This is being discussed today.

Composition of income by region

The aim here is to cross-reference spatial information with income information. A comparison of the participation of different income types in each type of town highlights some particular aspects: work earnings are relatively more important in the urban periphery, while social security benefits up to one minimum wage are extremely important in rural areas (16.8% of income sources), followed by other public transfers (5.2%) (Table 2.12). The highest social security pensions are found in capitals, where they represent 17.2% of the income.

Table 2.12. **Participation of different income sources in Brazil, by type of city, 2008**

In percentage

	Income from all jobs	Other private incomes	Public transfers (*Bolsa Familia*)	Social security basic benefit (minimum wage)	Social security (above minimum wage)
Capital	76.8	2.4	1.7	2.0	17.2
Metropolis periphery	78.3	1.4	1.6	3.9	14.9
Non-metropolitan urban area	76.1	2.4	2.2	5.3	14.0
Rural area	67.2	1.2	5.2	16.8	9.5

Source: CPS/FGV based on PNAD/IBGE microdata.

When analysing the 27 states in Brazil, Amapá is where earnings from work are the most important (88.2%). In terms of public transfers, Alagoas has the highest share of income from social programmes (4.4%), and Rio de Janeiro has the highest share of family income from pension benefits (27.9%).

Disaggregating the participation of income sources in the five Brazilian regions (Table 2.13), it is found that in the North and the Centre-Western regions, earnings from work have a higher importance (82% and 81.4% respectively). Public transfers such as social programmes and basic benefits are more present in the Northeast. Social security benefits above one minimum wage have the highest importance in the Southeast and in the South (16.7% and 15.3% respectively).

Table 2.13. **Participation of different income sources in Brazil, by region, 2008**

In percentage

	Income from all jobs	Other private incomes	Public transfers (*Bolsa Familia)*	Social security basic benefit (minimum wage)	Social security (above minimum wage)
North	82.0	2.0	2.7	4.6	8.6
Northeast	71.9	2.0	3.8	9.5	12.8
Southeast	76.0	2.1	1.7	3.5	16.7
South	76.0	2.5	1.8	4.4	15.3
Centre	81.4	2.4	1.8	3.3	11.1

Source: CPS/FGV based on PNAD/IBGE microdata.

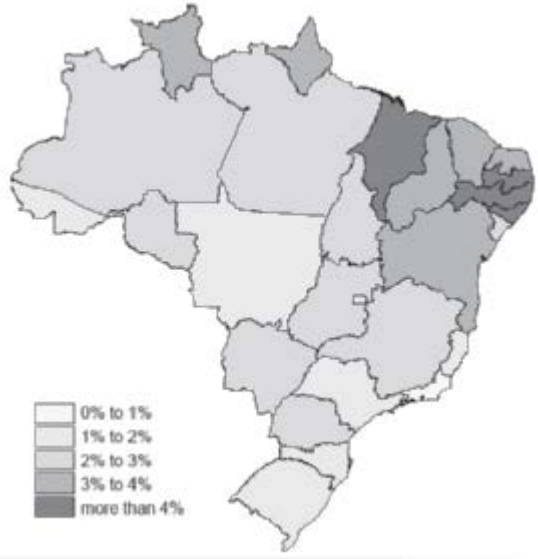
Figure 2.10. **Participation of income from Brazilian *Bolsa Familia* and other social transfers in total income, 2003 and 2008**

In percentage

2003



2008



Source: CPS/FGV based on PNAD/IBGE microdata.

Breakdown of inequality

Gini index breakdown by income sources

To see how inequality was reduced, a methodology for breaking down GINI variations into different income sources is applied. Table 2.14 shows that between 2001 and 2008, income from work explains 66.9% of the reduction in inequality in that period, followed by social programmes with 17%, especially *Bolsa Família, Bolsa Escola* and other social transfers (non-social security related). Then follows social security benefits with 15.7%, whereas the remaining incomes account for just 1%. When taking a longer period, from 1992 to 2008, the share of *Bolsa Familia* increases to 40.9% and the shares of labour earnings and social security fall to 55.6% and 5.9% respectively.

Table 2.14. **Participation of different income sources in inequality reduction in Brazil**

In percentage

Shares	1992 to 2008	2001 to 2008
Work earnings	55.6	66.9
Social security	5.9	15.7
Bolsa Familia	40.9	17.0
Private transfer	-2.5	0.5
Bonus	0.1	-0.1
Total	100.0	100.0
Delta GINI	-0.035	-0.047

Source: CPS/FGV based on PNAD/IBGE microdata.

The analysis considers not only the impacts of different income sources on inequality, but also the additional costs to public finance of official income policies. The smaller weight of *Bolsa Familia* and other social transfers in average income between 2001 and 2008, in comparison with social security benefits, suggests a better ratio of fiscal cost to social benefit in terms of inequality reduction. This means that, in that period the additional cost for the fiscal budget of each percentage point of inequality fall according to different federal transfers was 384.4% more expensive for social security benefits compared to *Bolsa Familia* and other social transfers.

Socio-demographic determinants of income inequality

The main results of a multivariate analysis of per capita income distribution between 2001 and 2008 using a Mincerian earnings equation approach are presented in this section (see Annex 2.A1). Standard socio-demographic variables such as gender, ethnicity, age, migration status (with respect to states and countries), years of schooling and spatial variables (27 Brazilian states interacting with five city sizes (periphery of metropolitan areas, capitals, urban non-metropolitan, non-capitals and rural areas) are used.

Table 2.15 shows the gross contribution of these variables to inequality in per capita household incomes. This is done simply by means of independent regressions of each variable plus a constant on the particular income concept. The data show that the six education categories explain one-quarter of total income variation in 2008 – making it the single most important variable for explaining inequality. In 2001, just before the sharp

inequality fall, this explanatory power was even higher (31.3%). A similar effect happens with per capita labour earnings. Geographic variables and ethnicity have also lost explanatory power between 2001 and 2008. Gender had a constant null explanatory power, probably because the results are considered in per capita terms and not at individual levels. The explanatory power of migration increased slightly, as did the age variable, especially when considering all income sources. This captured the effect of the somewhat generous non-contributory pension system for the elderly in Brazil.

Table 2.15. **Gross contribution to income inequality in Brazil**

In percentage

Per capita income	All income sources		Labour earnings	
	2008	2001	2008	2001
Gender	0.0	0.0	0.0	0.0
Age	8.3	7.0	4.6	4.2
Education	25.0	31.3	29.1	33.3
Ethnicity	7.9	10.3	7.1	9.5
Migration	2.6	2.3	2.1	2.1
Geography	18.1	21.1	20.7	23.2

Source: CPS/FGV based on PNAD/IBGE microdata.

Table 2.16 basically shows the share of total explained variation (total R^2) when extracting each variable in turn from the complete regression. The data show similar qualitative results to the previous exercise, namely, a reduction in education's explanatory power and an increase in the explanatory power of both age and geography.

Table 2.16. **Net contribution to income inequality[a] in Brazil**

In percentage

Per capita income	All income sources		Labour earnings	
	2008	2001	2008	2001
Gender	0.2	0.1	0.3	0.2
Age	14.3	10.3	5.6	3.8
Education	34.3	35.4	35.8	35.4
Ethnicity	2.6	2.3	2.2	2.1
Migration	0.1	0.0	0.2	0.1
Geography	12.9	11.2	15.9	14.1

a) Partial R^2 is calculated as the % difference of R^2 without variable with respect to full regression R^2.

Source: CPS/FGV based on PNAD/IBGE microdata.

The main result to be stressed in this breakdown exercise with respect to the socio-economic variable is the reduction of the explanatory power of education. This may be due to the increased supply of education along with the relative stagnation of Brazilian

labour markets until 2004.[8] The links between educational level and inequality, including not only quantitative aspects but also qualitative aspects (proficiency), as well as the associated educational policies, is examined in the following section.

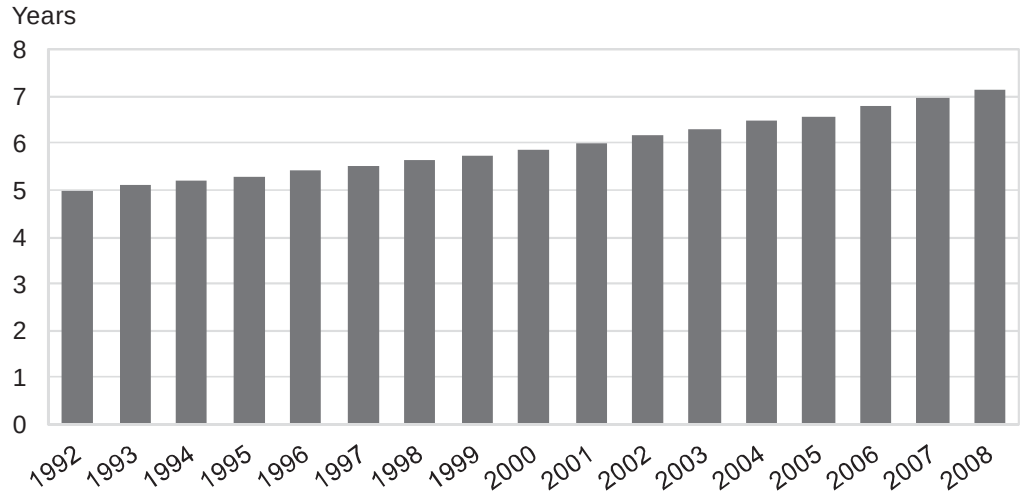
Years of schooling distribution

Even after the reduction of education's gross explanatory power, years of schooling remains the most important predictor of income and labour earnings. This section presents evidence about the key role played by years of schooling in explaining changes in mean individual earnings in Brazil during the last 16 years. Given the long lags in the acquisition of formal education among the adult working-age population, it is useful to look at trends in the level and distribution of years of schooling to forecast labour earnings distributive issues.

Historically, there was an increase of a little more than one year of schooling between 1992 and 2002 and a somewhat similar absolute increase in the seven-year period between 2001 and 2008, indicating an acceleration of schooling outcomes (Figure 2.11).

Figure 2.11. **Average completed years of schooling in Brazil**

Population aged 25 or older

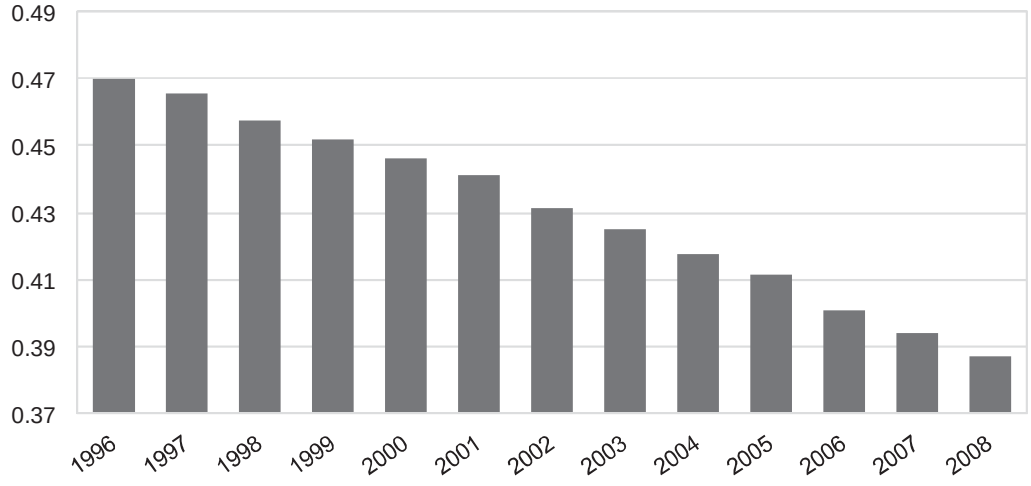


Source: CPS/FGV based on PNAD/IBGE microdata.

Figure 2.12 shows the dispersion – captured by the Gini index – of years of schooling for individuals aged 25 years or older. The fall in inequality of schooling between 2001 and 2008 is comparable to the fall observed in per capita income.

Figure 2.12. **Inequality in completed years of schooling[a] in Brazil**

Population aged 25 or older



a) Inequality is measured by the Gini index on the years of schooling.

Source: CPS/FGV based on PNAD/IBGE microdata.

2.4. Labour market performance

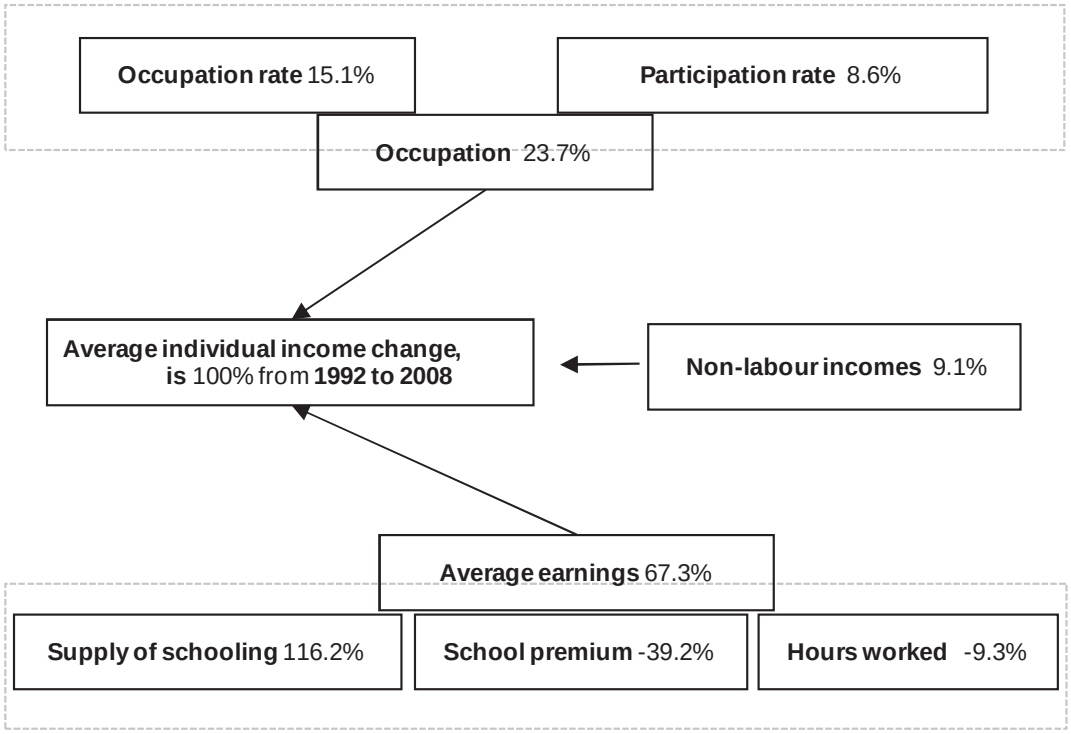
Labour links

Given the central role played by labour income in income determination, it is important to see the impacts on income growth of different labour market factors, in particular classic ingredients such as schooling, working hours, unemployment and participation rates. The level of analysis switches from the household per capita to focus on individuals in the working-age population (aged 15 to 65),[9] starting with a simple breakdown methodology to assess the role of different labour market factors on average income, both levels and changes.[10]

Figure 2.13 presents the different components of the change in total income, which grew 35.6% in the 1992 to 2008 period. Non-labour income, such as official transfers and social security benefits, were responsible for 9.1% of this growth. The remaining 90.9% of this change is divided into changes in the average labour earnings of the employed population (67.3%) and in the employment rates. When breaking down the first factor, it becomes clear that the main factor driving average labour earnings was the increase in the years of schooling of the employed population (116.2%). This means that, with other factors constant, total income should have increased by 42.5% instead of by 35.6%. The adverse factors in average earnings were the fall in returns to education (-39.6%, measured by average earnings of years of schooling by hours worked) and the average working-hours (-9.3%). The increase in the quantity of workers explains 23.7% of total income change, and this can be further divided into changes in the employment rate (15%) and changes associated with an increase in the participation rate (9%).

Figure 2.13. **Labour market determinants of mean individual income in Brazil**

Population aged 15-65



Source: CPS/FGV based on PNAD/IBGE microdata.

Table 2.17 shows that not only individual labour earnings but all labour market factors, except working-hours which may be seen as a net welfare gain became expansionary after 2003. The ratio between total income sources and labour earnings also decreased which shows that when looking at the working age population labour earnings grew more than other sources of income.

Table 2.17. **Breakdown of Brazilian individual income and labour market indicators**

Population aged 15-65

Year	Income from all sources (in BRL)	Income from all sources / Labour earnings	Hourly wage by years of schooling employed population (in BRL)	Years of schooling for the employed population	Working hours per week	Employment rate (in %)	Participation rate (in %)
1992	562.7	1.1	3.3	6.0	43.6	80.4	71.7
2001	671.9	1.2	3.3	7.2	42.2	80.5	71.0
2003	616.1	1.2	2.7	7.6	43.5	80.3	72.1
2008	763.3	1.2	2.9	8.5	42.4	84.2	73.6

Source: CPS/FGV based on PNAD/IBGE microdata.

In emerging economies like Brazil it is important to look not only at the quantity of jobs but also at their quality (Table 2.18). Decent work is on the rise but only after 2003 when part-time jobs and domestic work started to fall. Temporary work and self-employment rates are also falling, and in 2008 reached their lowest levels since 1992. The share of informal work, measured as the sum of self-employment, informal and unpaid employment, has also fallen since 2003.

Table 2.18. **Brazil's job quality indicators**

Shares of total employment (in percentage)

	1992	2001	2003	2008
Self-employment	17.4	16.9	17.0	16.3
Part-time work	15.1	16.1	17.2	16.8
Temporary work	3.4	2.8	2.9	2.2
Domestic work	5.8	7.5	7.5	7.2
Informal work	44.1	43.7	43.6	39.2

Source: CPS/FGV based on the PNAD/IBGE microdata.

Recent formalisation trends

The high cost of doing business in Brazil has been a topic of some discussion during the last decade, especially during the unemployment crisis of 1998-2003. But since 2003, Brazil started to generate at least twice as many formal jobs as before, totalling more than 8.5 million net formal jobs since the end of 2003 (Figure 2.14). After a heavy loss of more than 600 000 jobs in December 2008, twice the usual number, the pace of formal employment generation seen in the pre-September 2008 boom was reached again in September 2009.

The causes of the recent boom in formal employment are still under discussion, ranging from the apparently small set of reforms established in 1998 (Section 2.6), the effects of increasing school coverage in the 1990s (Mello and Santos, 2009), the reduction of contractual and other sorts of instability observed after 2003 (Barros *et al.*, 2007), the increasing fiscalisation of labour (Simão, 2009), and finally the recent recovery of growth impacts on the elasticity of the demand for labour (Courseuil and Foguel, 2009).

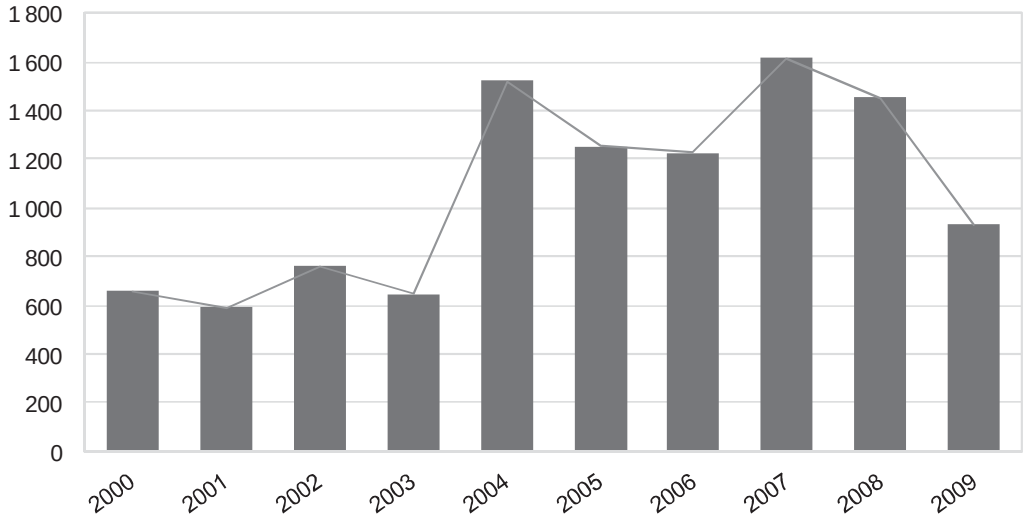
The impact of the years of schooling on formalisation trends seems empirically the most important one. When children who received a state education reach working age, they are now more likely not only to have higher incomes than before but also to be in formal employment and contributing through taxes to that same state.

2.5. Prospective agenda for labour and education policies

During the past decade, Brazil gave the poor to the market, and there is now a need to shift the policy agenda to the objective of giving the market to the poor. This new agenda offers many possibilities, but the main objectives are increasing the quality of the country's labour laws and educational services.

Figure 2.14. **Net annual creation of formal employment in Brazil, 2000-09**[a]

In thousands



a) Up to September.

Source: CAGED/MTE.

Reforming labour policies

The current state of Brazilian labour laws

The Consolidated Labour Code and after

The main body of Brazil's labour legislation was introduced in the 1940s, and consolidated into the *Consolidação das Leis do Trabalho* (CLT) in 1943. The CLT is a large, often overlapping, set of rules that determines the individual and collective rights and duties of workers, unions and firms. The law determines that all workers must have a booklet where all individual labour contracts and any changes in them over time are registered by the employer. By definition, a formal worker has a booklet signed by his employer ("*carteira assinada*").

Besides this obligation to sign the booklet, the law stipulates a set of minimum conditions any employment relationship must follow. The most important rules cover: maximum hours of work per week; maximum extra-time working hours; minimum payment for extra-time work; minimum wage; pre-paid annual vacations; special protection clauses for women and children; the prohibition of the dismissal of pregnant women; the right to paid vacation before and after childbirth, for the mother; special work conditions for night shifts; one month pre-notification of firing; and protection against unjustified dismissals.

There have been changes in the legislation since the creation of the CLT. In particular:

- In 1962, introduction of an annual one-month wage bonus ("thirteenth salary").
- In 1966, creation of a severance fund (*Fundo de Garantia por Tempo de Serviço* – FGTS) in place of a clause forbidding dismissal of workers with more than ten years of tenure.
- In 1986, creation of an unemployment insurance programme.
- In 1988, approval of a new Constitution with the introduction of new labour clauses, which can be summarised as follows:
  - The maximum number of hours of work per week was reduced from 48 to 44 hours and the minimum payment for extra-time hours increased from 20% to 50% of the wage.
  - For continuous work shifts, the maximum workday was reduced from eight to six hours.
  - A vacation bonus of one-third of workers' wages was created.
  - Childbirth leave for mothers was increased to 120 days, and a five-day childbirth leave for the father was introduced.
- Firing costs for unjustified dismissals increased from 10% of the FGTS balance to 40%.

This is the list of the minimum individual rights for private sector and state enterprise workers. Working conditions can be improved through negotiations between the individual worker and the firm, or through collective bargaining. The Constitution of 1988 clearly mandated higher non-wage benefits and made dismissals costlier for employers.

Severance rules and unemployment compensation

In 1966, a severance fund was created, called the *Fundo de Garantia por Tempo de Serviço* (FGTS). When hiring a worker, the firm had to open a bank account for the worker and deposit 8% of the value of the wage in the account. Today, *Caixa Economica Federal*, a government saving and loans institution, collects the FGTS levy and invests it primarily in urban housing projects, giving workers a legally guaranteed minimum deposit rate.

When dismissed without just cause ("*sem justa causa*"), the worker could draw this money and received a monetary compensation corresponding to a fine of 10% over the total amount of the fund. Like many other Latin American countries, dismissal for economic reasons is not considered a just cause. In 1988, the fine for unjust dismissal was increased to 40% of the worker's FGTS account balance. Besides this fine, the employer has to notify the worker one month before he will be fired. This is the "*aviso prévio"* law, or previous notification of firing. During the month after receiving the notification of dismissal, the worker is allowed, according to the law, to take two hours a day to look for a new job. This implies a minimum cost of 25% of the worker's monthly wage. In fact the cost is usually higher, since firms end up paying the notification fee to the worker and dismissing him immediately.

Thus, the total cost of dismissal is 25% to 100% of the monthly wage plus 40% of the FGTS. The cost depends on the number of months the worker has worked for the firm. If, for example, the worker stayed one year with the firm, the cost of dismissal is, at most, 1.41 monthly wages. The cost to dismiss a worker who has been with the firm for five years is, at most, 3.19 monthly wages, and so on.

Since 1986, when fired, besides the advance notice, access to the FGTS (and the 40% fine for unfair dismissal), the worker also has the right to unemployment compensation benefits. The unemployment compensation programme offers partial coverage for up to five months of unemployment (four months until 1996). To become eligible to receive the benefit, the worker must meet the following criteria: *a)* to have been dismissed without just cause; *b)* to have had a formal labour contract during the last six months or to have been legally self-employed for at least 15 months; *c)* to be unemployed for at least seven days; *d)* must not receive any other pension; *e)* must not have any other type of income sufficient to guarantee his own subsistence and that of his family. The value of the benefit cannot be lower than the value of the minimum wage; it is adjusted monthly for inflation, and is related to the average wage received by the worker in the last three months of the previous job.

Payroll taxes and mandatory benefits

Brazilian labour law stipulates a very comprehensive set of minimum standards any individual contract must follow. The rules do not provide much space for negotiations between employers and workers. The result is a rigid set of minimum rules, which reduces the flexibility of the labour contract in face of changes in the economic environment. In addition to the costs imposed by this inflexibility, there are more direct and obvious non-wage costs due to payroll taxes and mandatory benefits required by the law.

The cost of labour in Brazil can be broken down into four parts:

- The basic contractual wage (60% of total cost).
- Mandatory benefits, which include the annual one-month bonus (*décimo terceiro salário*), the contribution to the FGTS, vacations and other benefits (23% of total cost).
- Contributions to the official training system (SENAI and SENAC), to finance an institution that assists small enterprises (SEBRAE) and to finance a workers' assistance service (SESI or SESC) (2% of total cost);
- Contribution to the federal social security system (INSS) and to fund educational services (*salário educação*) and an on-the-job accident insurance fee mandatory for all firms and proportional to the payroll (14.8% of total cost).

In addition to these contributions based on payroll costs, employers are also charged levies on revenues to pay for additional INSS-related obligations (Cofins), which were raised in 1999 from 1 to 2%, and for the PIS/PASEP, and contributions towards the *Fundo de Amparo dos Trabalhadores* (FAT), which fund unemployment compensation, job search assistance and active labour programmes such as training and microenterprise support schemes. These labour-related levies can add up to between 2 and 3% of employer's revenues.[11]

Labour reforms agenda

The set of laws that constitute the labour code have their basis in rules formulated in the 1940s, with additional – sometimes overlapping or inconsistent – legislation added over the years both in response to genuine labour market concerns and for short-sighted political reasons. Today, the regulation of the labour market is a daunting task, for the following reasons:

- The plethora of laws has led to uncertainty about which regulations apply and under what circumstances, which results in frequent disputes between employers and employees.[12]
- These disputes are resolved by labour courts, which have over time earned the reputation of having a strong pro-labour bias. Under Brazilian law, labour courts have policy-setting powers, in that labour courts – in judging a particular case – are entitled to formulate policies in areas where the law is ambiguous in the opinion of the court.
- No employment contract is strictly legal unless approved by the Ministry of Labour, which leads to the ministry having to devise and validate special contracts for specific working conditions, without which employers are left vulnerable to expensive lawsuits.[13]
- Such interventions, although well-intentioned, can lead to further ambiguities, exacerbating the problem of uncertainty about the full costs of labour by tying employers to costly, time-consuming delays in court cases that are usually resolved in favour of the worker.
- Collective bargaining between workers and employers can be an instrument for formulating more definite contracts, but collective bargaining rules in Brazil and the practices they have engendered are often insensitive to work-specific conditions.
- The rates of payroll contributions and the design of the programmes that they fund encourage evasion and informality.

In the last 12 years, the government implemented some labour reforms, principally the introduction of temporary employment contracts during which the employer pays lower payroll taxes and is allowed to dismiss the worker with considerably lower severance costs. In 1998, the government's response to the rise in open unemployment has been to introduce a package of labour market measures that aim to change some clauses of the labour code, and reform and expand active and passive labour market programmes. The main proposed changes are a reduction of weekly hours to 40, greater decentralisation of collective bargaining and measures to encourage labour disputes to be settled by worker-employer committees; allowing temporary layoffs to be funded by credits from FAT resources, to be repaid if the employer decides not to re-hire the worker at the end of the layoff; the elimination of policy-setting or "normative" powers of labour courts; and lowering payroll tax rates.

Some of these measures require constitutional reforms (*e.g.* changing rules on union finance and membership), others require changes in labour legislation (*e.g.* allowing temporary layoffs), and yet others can be implemented immediately by the executive branch of government (*e.g.* extending the duration of unemployment benefits). This section lists these actions and briefly discusses their objectives.

The reforms debated over the past few years which are believed to be able to improve labour market outcomes are the following:

- *Eliminating contradictions between the Labour Legislation and the Constitution*. A consensus for a comprehensive review of current labour legislation and the mechanisms by which it is enforced is being built, but is likely to take some time. In the meantime, the ministry has submitted a bill for consideration by Congress that seeks to eliminate contradictions between labour legislation and worker rights guaranteed under the Constitution of 1988.

- *Severance laws*. While reform of the severance fund (FGTS) has not been formally attempted, there have been proposals suggesting de-linking the access to the fund from dismissals in order to reduce perverse incentives for workers to induce dismissal. A Ministry of Labour proposal to reduce the rate of employers' contribution to fund the FGTS from 8% to 2% of payroll met with opposition within and outside the government in 1998, and was dropped. But the national association of private pension funds is preparing a proposal to convert 4% of the FGTS to a mandatory individualised defined contribution pillar. If seriously considered, this could be accompanied by a reform that would make the unemployment compensation system function more like an unemployment insurance plan (*i.e.* actuarially based).

- *Maximum hours worked*. The government is considering a reduction in weekly work hours (*Jornada de Trabalho*) from 44 to 40 hours. One of the proposals being discussed during the current administration is to reduce the hours of work that qualify a person for a full-time contract (which entitles the person to greater benefits than part-time work). The objective of this measure is to make the work-week more flexible by permitting daily work to range from five to eight hours, and weekly hours from 26 to 40 hours.

- *Temporary contracts.* In 1997, the government introduced legislation that would allow employers to hire new workers on temporary contracts, during which non-INSS-related payroll taxes would be waived and dismissals would be less costly.

- *Union representation.* For a single sector or occupation, Brazilian labour laws do not allow for more than one union per municipality – the "*unicidade sindical*" provision. For all practical purposes, this legislation outlaws plant-level collective bargaining. The Ministry of Labour has proposed that this law be altered to facilitate collective bargaining to reflect firm-level conditions. The ministry has also proposed changes in the mechanisms by which unions are financed, making union fees voluntary rather than mandatory contributions. This change is designed to ensure that unions better represent worker interests.

- *Policy-making powers of labour courts*. Brazilian labour laws give labour courts policy-setting powers ("*poder normativo*") in that these courts can form policy on issues that are left unclear by the CLT and the Constitution. As a result, labour court rulings have influence far beyond the case being arbitrated, in effect serving a policy-making role that should be the responsibility of the Ministry of Labour.

- *Minimum wage*. Brazil has a nationwide minimum wage that is at the same time the minimum wage in the private sector and the minimum payment for pensions in the social security system. As noted in Barros *et al.* (2007), the positive impacts of minimum wage increases on labour markets observed until now, no longer

occur. Besides the diminishing positive impacts (and/or increasing adverse social costs) of the minimum wage, and of real increases in it of more than 100% in the last 15 years, Brazil now has a better targeted system of monetary transfers than those indexed to the minimum wage. Both labour and social assistance considerations coupled with the Constitutionally-imposed irreversibility of the real minimum wage suggest a need for more moderation in future minimum wage hikes.

- In 2000, states were allowed to set their own minimum wage in the labour market (*Pisos Salariais*). This was an attempt to not only regionalise the minimum wage, adopting a system similar to the United States for instance, but also to pursue a positive agenda that de-linked social security pensions from the minimum wage. Moura and Neri (2007) showed that the new law was irrelevant in the case of Rio de Janeiro and Rio Grande do Sul, the first two states to adopt it. This suggests a reformulation of this law. Recently the State of São Paulo and Paraná adopted state-level wage floors.

- *Individual Entrepreneur Law* (*Lei do Microempreendedor Individual – MEI*). One-third of the poor live in families headed by self-employed individuals, while only 15% of the self-employed were covered by social security. Perhaps in view of this, on 1 July 2009 a new law was launched that simplifies and reduces the size of taxes and social security benefits owed by individual entrepreneurs, with a monthly contribution of little more than 20 EUR. It is too soon to assess the real impact of this new law, which points in a proper – and frequently foreseen – direction. Once again, adjustments might be needed for possible negative policy feedback.

- *Also with regard to the large number of poor families headed by self-employed workers*: the self-employed are not only historically underserved with policies, but the knowledge on the existing good and the bad federal policies is not spread among policy makers. New services need to be designed for the self-employed in the areas of microcredit, microinsurance and especially access to consumer markets should be fostered (Neri, 2008b).

Educational policy agenda

Education demand, labour supply and Bolsa Familia

Conditional cash transfers such as *Bolsa Familia* described in Section 2.1 attempt to influence the demand for education, but can also influence labour supply decisions. The social rate of return to education implies the opportunity costs of a teenager studying instead of working, as well as wage premiums and direct private or public costs of education. The literature calculates rates of return of 15% per year of study, which is at a much higher level than the cost of financing for the Brazilian government – who should subsidise it. The internal rate of return to education, which is relevant to decision-making by parents and children, is even higher, because it excludes the public costs of education and includes other private benefits from education, beyond income earned in the labour market. For instance, Neri (2009b) indicated that, keeping income constant, 95% of the improvement in perceived health observed as a result of improvements in education and income occurs as a direct effect of education. There is therefore an enormous private gain beyond the labour market to be derived from the decision to pursue more education. In this sense, high school drop-outs constitute a sort of paradox in Brazil.

If education has such a high private rate of return, why do Brazilians invest so little in it? Neri (2009b) approached this issue with direct questions to students collected in the special education supplement of the 2006 PNAD, such as: why is an individual of a certain age out of school? Is it because he has to work to provide for his family or he does not have access to school, or simply because he does not want the type of school that is on offer? The responses showed that a lack of interest accounts for 50.5%, followed by the need to work and generate income (35%) and the difficulty to access schools (12.9%). These three reasons explain the near totality of answers. The first two elements related to the lack of demand for education are worth highlighting, as they account for 85.6% of the reasons, compared to 12.9% of the alleged supply deficiencies. With respect to the demand side for education policy, during the present decade the main educational policy was linked to the overall social policy, mainly founded on the introduction and dissemination of targeted conditional cash transfers, among which the most relevant was *Bolsa Familia*, which is intended to fight present and future poverty through crossed education and health subsidies for the poorest families.

The proposed upgrades of *Bolsa Familia* are the following:

- The ultimate objective would be to integrate all non-contributory income transfers into a single programme, preferably under the *Bolsa Família* framework. A first step in this direction was already taken in 2007, when non-contributory social security spending was split from the rest of the social security accounts. This allows better comparisons between the opportunity costs of different income policies. It does not seem equitable to provide income transfers associated with non-contributory transfers that are ten times higher than *Bolsa Família* benefits. Despite political difficulties, some sort of integration seems desirable.

- The second aspect of effective targeting is to avoid fragmentation. Brazil should avoid the temptation to fragment its income policies into different monetary transfer programmes according to region, gender, race and housing conditions (*favelas*, etc.). Such fragmentation would make the management of public policy more complex. The binomial income-age provides a straightforward criterion that allows researchers to take into account for the poor population the main phases of the life cycle, such as education, working and retirement.

- The third aspect concerns conditionalities. Besides the programme's ability to reach the poorest segments of the population with monetary and non-monetary transfers, another way to improve income policies is to enhance their ability to affect lives positively through the imposition of explicit conditionalities – especially for relevant state variables where there are market failures, such as externalities and credit constraints. Most of the current conditionalities of *Bolsa Família* seem to have a high degree of redundancy in the sense that many of the conditions they impose have already been adopted by the beneficiaries before starting the programme. Neri (2008a) suggested extensions along three lines: *i)* nurseries and pre-school grants (0 to 6 years of age); *ii)* quality of education grants (7 to 15 years of age); *iii)* secondary school grants for those over age 16 are preferable to first employment initiatives.

- Empirical evidence suggests the need to work more on the disincentives aspect in the design of the *Bolsa Familia* programme.[14] Adoption of new rules following the spirit of the United States. Earned Income Tax Credit (EITC) seems desirable.

- The use of *Bolsa Familia* benefits as collateral for microcredit initiatives is a possibility that should be explored further (Neri and Giovanni, 2005).

Education supply

With respect to the supply side of education, the most relevant educational policy in the past decade was the establishment of the Fund for Primary Education Administration and Development and for the Enhancement of Teachers' Status (FUNDEF) and its subsequent substitution by the Fund for Basic Education Administration and Development and the Enhancement of the Status of Education Professionals (FUNDEB). Under the Fund, sub-national governments' own resources are transferred to afford expenditure on public education from grades 1 to 8. The fund draws on state resources, which are then shared amongst state and municipalities.

Quality of education agenda

In March 2007, the Federal Government launched the Education Development Plan (PDE), a set of proposals that aim to improve the quality of education in the country with a clear emphasis on basic education – throughout the country's history a large priority has been given to higher education – and the establishment of a target-based system. The plan's main innovation was the creation of a synthetic indicator of education quality, the Basic Education Development Index (Ideb), based on the average passing rate and average proficiency for each municipality in the country. The federal government determines targets for the evolution of the Ideb and then conditions part of its education-related transfers on the accomplishment of these targets. The new plan favours basic education over higher education. Secondly, the dissemination of information on education is key to mobilise society in favour of the cause of education and to make changes in the quality of education. Finally, an incentive mechanism started to be created for those who are part of the educational process.

The PDE is implementing a target-based system in Brazil when different educational actors are asserting the need to determine educational targets as the basis of educational policies.[15] Fostering a culture of educational targets to guide educational policy – which stems at the same time from UNESCO and the Education for All Commitment – holds the promise of motivating all stakeholders, from young pupils to mothers and teachers, from mayors to governors, and offers an exceptional opportunity to step up and co-ordinate efforts so as to achieve concrete results in the direction of providing high-quality education for all.

The Basic Education Development Index (IDEB)

The methodology behind the IDEB with its flow indicators combines the average passing rate of a specific schooling level with standardised grades in both Math and Portuguese tests taken in the Saeb (or in Prova Brasil) bi-annual proficiency exams. These exams evaluate specific school series and not age groups, such as in the PISA OECD exam, which is why the IDEB does not simply use the proficiency test result but multiplies it by the passing rate. The table that follows shows the initial IDEB values for each educational sector in 2005, the base year of the programme, and the respective targets for 2021.

Table 2.19. **Brazil's Basic Education Development Index (IDEB) 2005 and 2021 projections**

Administrative level	First years of primary school (first half)		Final years of primary school (second half)		Secondary school	
	2005	2021	2005	2021	2005	2021
Public	3.6	5.8	3.2	5.2	3.1	4.9
Federal	6.4	7.8	6.3	7.6	5.6	7.0
State	3.9	6.1	3.3	5.3	3.0	4.9
Municipal	3.4	5.7	3.1	5.1	2.9	4.8
Private	5.9	7.5	5.8	7.3	5.6	7.0
Total	3.8	6.0	3.5	5.5	3.4	5.2

Source: Saeb 2005 and Scholar Census 2005 and 2006 – INEP/MEC.

The IDEB uses a scale from 0 to 10, and the index value in Brazil was 3.8 in 2005 – which was adopted as the baseline by the Educational Development Plan (PDE). Since the minimum average score for approval conventionally in Brazil is 5.0, all states would have failed if they were students. A target of 6.0 was set for 2021, just before the celebration of the 200th anniversary of Brazil's independence. This strategy aims to bring the nationwide educational results in 2021 to the same level observed today in Brazil's private schools today or alternatively to current OECD levels.[16] Other social policies such as social assistance and health can potentially learn from this social targets approach used in education in Brazil.

2.6. Conclusion

This chapter describes the evolution of income distribution in Brazil between 1992 and 2009. It shows a pronounced reduction of overall income inequality since 2001, unprecedented in Brazilian social statistics. It also discusses the reasons for the marked increase in the rate of formal jobs generation after 2003, which is perhaps the second main achievement of this decade, along with inequality reduction. Finally, it proposes a list of elements to be pursued in the next generation of Brazilian social and labour policies.

The 1970s was the decade of the Brazilian economic miracle, but also the decade of dictatorship. In the 1970s, a dramatic poverty reduction happened – a non-trivial 33% – despite an increase in inequality. But the 1970s also brought the demand for democracy, which marked the decade of the 1980s. The 1980s finished just after the so-called New Brazilian Constitution (the so-called Citizen Constitution – *A Constituçăo Cidadã*) was promulgated. The 1980s was characterised by re-democratisation and instability. It was a period in which inflation and inequality rates reached their peaks and set the tone for the following decades: an agenda in the 1990s against inflation and in the current decade against inequality. The last decade was a decade of stabilisation that encouraged Brazilians to start thinking about themselves more as a country and to look further into the future, leaving inflation behind and starting a real agenda.

The Real stabilisation plan brought a sense of reality to Brazil, away from monetary illusions. It made it possible to develop an educational agenda, to put children into school and start measuring their performance. Somehow, these two revolutions – in inflation and in school, including the increase in the quantity of education – helped to reduce inequality in the current decade, as young generations who acquired a better education began to

enter the labour market in more favourable conditions. Moreover, the Brazilian Federal Government started to redistribute official cash transfers, which also favoured a reduction in inequality.

The 1970s was a decade of growth, and the current decade is a decade of inequality reduction and the creation of formal jobs. Whereas in the 1970s, Brazil grew 6% in per capita terms per year, this decade can be expected to see 2.1% growth in per capita terms, but poverty and inequality will decrease more than in the 1970s. The impact of the current economic crisis seems to have been lower than expected, and at the beginning of 2010, inequality levels were at the same level as in the pre-crisis period. Indeed, although inequality in per capita labour earnings underwent a serious deterioration in January 2009, losing part of last year's gains, it then recovered to pre-crisis levels after July 2009.

At the policy level, there has been substantial continuity between the Cardoso and the Lula administrations, in terms of both macroeconomic and social policies. Although at the beginning of the Lula administration, the Zero Hunger programme could be viewed as a setback, *Bolsa Familia* made some steps forward in the direction of poverty eradication, and even under criticism from its opponents, it continued to increase its coverage of the poorest.

Using a sports analogy, Brazil has a really well structured macroeconomic defense (international reserves, fluctuating exchange rate, inflation targets, fiscal responsibility, etc.) and a first-rate social offensive strategy with *Bolsa Familia*. But it lacks a midfield – a policy that is both economic and social at the same time. Education, microcredit and socially targeted management programmes may permit people to treat the social areas in the same way as companies treat their results. This midfield has to be developed further, based on a key aspect: the quality of education. The good news is that improvements have been made to measure it, not only at the country level but also at the school level, and this is a real revolution that may have only just begun.

In that sense, the agenda for the next decade might be an agenda for quality education. The Ministry of Education and Brazilian civil society, through *Compromisso Todos pela Educação*, have set education proficiency targets for students for 2021. The target is to reach a quality grade of 6 by 2021 for all states' students, almost double the current level (on a scale from 0 to 10, grade 6 corresponds to the OECD's average grade in 2005; grade 6 is also the current average of Brazil's private schools – where top-income people enrol their children – while the average in public schools, where the majority of children go, is half of that).

In order to reach these education quality targets, Brazil should invest more in early childhood, which is not yet a priority for Brazilian social policy. Instead of promoting early childhood, the Brazilian social policy has given priority to the eldest by giving them a grant (a minimum wage) and enabling them to enjoy a better life in old age. However, it is much cheaper and more reasonable from a life quality perspective to invest in health and education in early childhood. It is much more effective too. Finally, Brazil needs an agenda to give the poor access to the markets, and not the other way round. During the present decade, the poor were given to the market, but what is needed now is to give the market to the poor, through quality education above all, but also through land reform, and access to microcredit and microinsurance. This also means treating the poor less as passive agents who merely receive official transfers from the state.

Notes

1. I would like to thank Luisa Carvalhaes, Samanta Reis, Ana Beatriz Andari and Ana Lucia Calcada for their assistance.

2. The term "income policies" includes both redistributive programmes and anti-inflation plans. Their common feature is the speed at which they operate. Due to their capacity to affect their targets rapidly, both types of policies were used opportunistically in fine-tuning with the electoral cycle (Neri, 2008a).

3. The main source of interest gains earned by Brazilian households came from the public debt.

4. The poverty line in Brazil can be defined using fractions or multiples of the minimum wage, which is not the most appropriate index, since the minimum wage value has suffered successive adjustments over time (*e.g.* a real gain of 44.7% since 2003). Therefore, when using the minimum wage as a parameter one gets the false impression of constant real value over time. There is also a strong concentration of mass of the individual income distribution in multiples (or accurate fractions) of the minimum wage not only in the labour earnings from formal and informal employment, but especially from contributory and non-contributory social programmes (pensions, unemployment insurance, BPC, etc.). For that reason, a small adjustment to the real value of the minimum wage (let's say by 0.00000001% real, *i.e.* virtually zero) can cause large variations in population around the cut-off line due to the effect of the new value of the benefits granted.

5. Amadeo and Neri (1999), Neri and Considera (1996) and Neri, Considera and Pinto (1999) assessed the effects on poverty and social welfare of a series of measures associated with the Real plan, such as the reduction of inflation tax, the increase in non-tradable sector income, the rise in the minimum wage, the reduction of income volatility and a credit boom.

6. Similarly if the per capita growth is -2%, poverty will grow 3.23% reaching 16.53%.

7. It is important to note the dissimilarity with per capita GDP growth in the period that amounted to 3.8% per year (with population growth and inflation discounted).

8. Incidentally, this mirrors Langoni (1973) on the increase in inequality in Brazil during the 1960s.

9. Brazil is still facing significant changes in its age group structure, with a relative increase in the number of adults – a result of lower fertility and/or mortality. Brazil's fertility rate is below full population replacement, with a level of 1.8 children per woman in 2008 (5.8 in 1970 and 2.9 in 1991). The share of children from 0 to 14 years of age fell from 33.9% to 24.6% between 1992 and 2008, and life expectancy reached 72.2 years in 2007 (62.2 in 1980). These two developments have contributed to relative and absolute increases in the Brazilian elderly population. Between 1992 and 2008, the share of the elderly population (60 and above) increased from 7.9% to 11.2%.

10. One advantage of the approach used here is to integrate the measurement of these different impacts using average income levels and changes in it (Kakwani *et al.*, 2006).

11. PIS/PASEP rates are 0.65% of personnel costs of private sector firms and 1% of the wage bill of non-profit establishments, but are 1% of the revenues of state enterprises.

12. For example, under one part of the law a worker who worked for less than the full hours per week for a year is entitled to proportional amount of paid vacations and mandatory Christmas bonus of a worker who worked full-time all year, but full benefits under another.

13. For example, the Ministry of Labour has recently been asked to devise a special contract for workers employed by farmers during short harvest periods.

14. Neri (2008a) showed that during the period between 2004 and 2006, during which there was a marked expansion of Bolsa Família benefits, the overall group of working-age individuals eligible for these benefits saw a relative decrease in all indicators of their labour market activity and performance indicators in comparison with the non-eligible group.

15. An important umbrella NGO involving many relevant actors of civil society, *Compromisso Todos pela Educação*, also set five targets to be reached by 2022, when the country will complete two centuries of political independence.

16. Neri and Buchmann (2008) analyses the current situation of education in Brazil in terms of its compliance with the Dakar Education Goals. Neri and Buchmann (2007) discusses IDEB possible limitations and desirable upgrades.

References

Amadeo, E. and M. Neri (1999), "Política macroeconómica y pobreza en Brasil", in Enrique Ganuza, Lance Taylor and Samuel Morley (eds.), *Política Macroeconómica y Pobreza en América Latina y El Caribe*, Mundi Prensa, Madrid.

Bacha, E.L. and L. Taylor (1978), "Brazilian Income Distribution in the 1960s: Tacts' Model Results and the Controversy", *Journal of Development Studies*, Vol. 14, No. 3.

Barros, R.P. and R. Mendonça (1992), "A evolução do bem-estar e da desigualdade no Brasil desde 1960", Texto para discussão, No. 286, IPEA, Rio de Janeiro.

Barros, R.P., M.N. Foguel and G. Ulyssea (2007), "Desigualdade de Renda no Brasil: uma análise da queda recenté", IPEA, Rio de Janeiro.

Barros, R.P., R. Henriques and R. Mendonça (2000), "Desigualdade e pobreza no Brasil: a estabilidade inaceitável", in R. Heniques (ed.), *Desigualdade e pobreza no Brasil*, IPEA, Rio de Janeiro.

Barros, R.P., R. Mendonça and M.C. Neri (1994), "The Duration of Poverty Spells", III Encontro Nacional de Estudos do Trabalho, ENABET.

Barros, R.P., R. Mendonça and M.C. Neri (1996), "Pobreza e inflação no Brasil: uma análise agregada", Economia Brasileira em Perspectiva, IPEA, Vol. 2, Rio de Janeiro.

Bonelli, R.P. and G.L. Sedlacek (1989), "Distribuição de renda: evolução no último quarto de século", in G.L. Sedlacek and R.P. de Barros (eds.), *Mercado de trabalho e distribuição de renda: uma coletânea*, Série Monográfica No.35, IPEA, Rio de Janeiro.

Courseil, C. and M. Foguel (2009), "O Aumento da Formalização das Relações de Trabalho como Consequência da Expansão Econômica", *Boletim de Mercado de Trabalho*, No. 39, IPEA, Rio de Janeiro.

Fishlow, A. (1972), "Brazilian Size Distribution of Income", American Economic Association: Papers and Proceedings.

Hoffman, R. (1989), "A evolução da distribuição de renda no Brasil, entre pessoas e entre famílias, 1979/86", in G. Sedlacek and R.P. de. Barros (eds.), *Mercado de trabalho e distribuição de renda: uma coletânea*, IPEA/INPES, Rio de Janeiro.

Hoffman, R. (2005), "As transferências não são a causa principal da redução da desigualdade", *Econômica*, Vol. 7, No. 2, Rio de Janeiro.

Hoffman, R. (2006), "Transferências de renda e a redução da desigualdade no Brasil e cinco regiões entre 1997 e 2004", *Econômica*, Vol. 8, No. 1, Rio de Janeiro.

Kakwani, N. (1996), "Income Inequality, Welfare and Poverty in Ukraine", *Development and Change*, Vol. 27, No. 4, pp. 663-691, October.

Kakwani, N., M.C. Neri and H. Son (2006), "Linkages Between Pro-Poor Growth, Social Programmes and the Labour Market: The Recent Brazilian experience", Working Paper No. 26, International Poverty Centre, Brasília.

Langoni, C. (1973), *Distribuição da renda e desenvolvimento econômico do Brasil*, Fundação Getúlio Vargas (FGV), 3 ed. 2005, Rio de Janeiro.

Mello, R. and D. Santos (2009), "Aceleração educacional e a queda recente da informalidade", *Boletim de Mercado de Trabalho*, No. 39, IPEA, Rio de Janeiro.

Mincer, J. (1974), *Schooling, Experience and Earnings*, National Bureau of Economic Research, New York.

Moura, R. and M.C. Neri (2008), "Efetividade do salário mínimo estadual: uma análise Via Regressões Quantílicas para Dados Longitudinais", *Revista Econômica Aplicada* (REA).

Neri, M.C. (1997), "O reajuste do salário mínimo de maio de 1995", Annals of XIX Meeting of the Brazilian Econometric Society, Vol. 2, SBE, Recife, December.

Neri, M.C. (2007), "Miséria, desigualdade e políticas de rendas: o Real do Lula", Fundacao Getulio Vargas, Rio de Janeiro (available in English at *www3.fgv.br/ibrecps/RET3/engl/index.htm*).

Neri, M.C. (2008a), "Income Policies, Income Distribution, and the Distribution of Opportunities in Brazil", in L. Brainard (ed.), *Brazil as an Economic Superpower? Understanding Brazil s Changing Role in the Global Economy*. Brookings Institution Press, Washington, D.C.

Neri, M.C. (2008b), "Miséria, e a nova classe média na década da igualdade", Fundacao Getulio Vargas, Rio de Janeiro (available in English at *www3.fgv.br/ibrecps/retcm/index_eng.htm*).

Neri, M.C. (2008c), "A nova classe média", Fundacao Getulio Vargas, Rio de Janeiro (available in English at *www3.fgv.br/ibrecps/M3/index_eng.htm*).

Neri, M.C. (2008d), *Microcrédito, o Mistério nordestino e o Grameen brasileiro*, Editora da Fundação Getulio Vargas, Rio de Janeiro.

Neri, M.C (2009a), "Consumidores, produtores e a nova classe média", Fundacao Getulio Vargas, Rio de Janeiro, *www.fgv.br/cps/fc* (available in English at *www3.fgv.br/ibrecps/cpc/index_eng.htm*).

Neri, M.C (2009b), "O Paradoxo da Evasão e as Motivações dos Sem-escola", in Velloso *et al.* (eds.), *Educação Básica no Brasil: Construindo o País do Futuro*, Vol.1, Campus-Elsevier, Rio de Janeiro.

Neri, M.C. and G. Buchmann (2007), "The Brazilian Education Quality Index (Ideb): Measurement and Incentives Upgrades", Paper provided by Graduate School of Economics, Getulio Vargas Foundation, Brazil.

Neri, M.C. and G. Buchmann (2008), "From Dakar to Brasilia: Monitoring UNESCO Education Goals", *Prospects: Quarterly Review of Comparative Education*, Vol. 38, 3/147, Paris.

Neri, M.C. and C. Considera (1996), "Crescimento, desigualdade e pobreza: o impacto da estabilização", *Economia Brasileira em Perspectiva*, Vol. 1, IPEA, Rio de Janeiro.

Neri, M.C. and F. Giovanni (2005), "Negócios nanicos, garantias e acesso a crédito", Revista de Economia Contemporânea, Vol. 9, No. 3, Rio de Janeiro.

Neri, M.C., E. Amadeo and A. Pinto (1999), "Gastos sociales básicos em Brasil in gasto público en servicios sociales básicos en América Latina y el Caribe: análisis desde la perspectiva de la Iniciativa 20/20", PNUD, CEPAL (Nações Unidas) and UNICEF, organised by E. Ganuza, A. Leon and P. Sauma, Santiago, Chile, October.

Neri, M.C., C. Considera and A. Pinto (1999), "A evolução da pobreza e da desigualdade brasileiras ao longo da década de 90", *Revista Economia Aplicada*, Ano 3, Vol. 3.

Neri, M.C., S. dos Reis and L. Carvalhaes (2008), "Intra-Household Redistribution and Health Perceptions", XXXVI Encontro Nacional de Economia.

Sen, A. (1976), "An Ordinal Approach to Measurement", *Econometrica*, Vol. 44, No. 2, The Econometric Society, New York.

Simão, A. (2009), "Sistema de vigilância e fiscalização do trabalho no Brasil: efeitos sobre a expansão do emprego formal no período 1999-2007", *Boletim de Mercado de Trabalho*, No. 39, IPEA.

Soares, S. (2006), "Análise de bem-estar e decomposição por fatores da queda na desigualdade entre 1995 e 2004", *Econômica*, Vol. 8, No. 1, Rio de Janeiro, pp. 83-115.

Stiglitz, J., A. Sen and J.P. Fitousi (2009), "Report by the Commission on the Measurement of Economic Performance and Social Progress", *www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf*.

Annex 2.A1

Measurement aspects

Database description

Besides the census, there are two main sources of household income at a microlevel that can be used to evaluate the evolution of per capita income distribution in Brazil: the PNAD and the PME. The PNAD offers the possibility of covering different income sources at a national level. The PME basically covers labour earnings in the six main metropolitan regions. On the other hand, the PME allows us to work with per capita family earnings. Therefore, earnings-based social measures, generated from either the PNAD or PME, capture income effects of changes in unemployment and the "precariousness" of jobs.

However, the PNAD presents just one picture at one point in every year that the survey is carried out. Since the PME is a monthly survey, it can provide a better idea of what has happened throughout the year, though on a less comprehensive set of variables than the PNAD. In sum, the PNAD offers a detailed *picture once a year* of Brazilian social indicators while the PME offers a not so detailed but more updated *monthly picture* of the same object.

Household Sample National Survey (PNAD)

The survey has been carried out annually by the Brazilian Institute for Geography and Statistics (IBGE) since 1976, except for the years when the Census takes place. The questionnaire underwent a sharp change in 1992. Its sample involves more than 100 000 families per year, and it has information about several demographic and socio-economic characteristics of the population, including features of households, individuals, families and workers. It is suitable for objective measures of income and education. Every year it includes a special supplement about one specific topic. The 2004 and 2006 special supplements were on social programmes and education.

The longitudinal aspect of the PME

The purpose of this annex is to describe the PME sampling scheme. To reduce the cost of the survey, the IBGE decided not to randomly select a complete new sample of dwellings each month; instead, every two years 12 sub-samples are selected, each being in size 1/4 of the actual sample for each month. Every month, four and only four of these 12 sub-samples are interviewed to make up the monthly sample. Hence, to cover the entire two-year period, each sub-sample has to be interviewed eight times

(eight interviews/sub-sample x 12 sub-sample = four sub-samples interviewed/month x 24 months).

The timing of these eight interviews is as follows: if *t* is the time of the first interview of a given sub-sample, then this sub-sample will be in the sample in the periods *t*, *t+1* month, *t+2*, *t+3*, *t+12*, *t+13*, *t+14*, *t+15*. In other words, when a sub-sample enters the sample it is interviewed for four consecutive months, then it is removed from the sample for eight months, to return to be interviewed again for four additional consecutive months.

To preserve the same degree of overlaying between samples for consecutive months, each month one and only one of the four sub-samples interviewed is substituted. Hence, in all pairs of consecutive months 3/4 of the dwellings are interviewed in both months. Of these characteristics of the PME sampling scheme, the fact that each dwelling is interviewed four consecutive times and eight times over a period of 16 months are the important characteristics to be explored in the study.

Alternative inequality measures

Below are presented a series of straight-forward inequality measures complementary to the ones analysed in the chapter.

Table 2.A1.1. **Per capita household income by quintile**

	1992	2001	2003	2008
Quintile 1	41.1	56.4	56.6	88.3
Quintile 2	112.7	143.8	140.7	209.8
Quintile 3	200.5	251.0	246.7	348.8
Quintile 4	350.4	441.0	425.6	566.2
Quintile 5	1169.9	1563.9	1442.7	1762.9

Source: CPS/FGV based on PNAD/IBGE microdata.

Table 2.A1.2. **Interdecile ratios of income**

	1992	2001	2003	2008
D9/D1	18.3	17.6	15.8	12.7
D9/D5	4.0	4.2	4.1	3.6
D5/D1	4.6	4.2	3.9	3.6

Source: CPS/FGV based on PNAD/IBGE microdata.

Annex 2.A2

Methodological issues

Stiglitz-Sen-Fitoussi report

The Commission on the Measurement of Economic Performance and Social Progress presented its report at the end of 2009 to the French Government on how to better measure countries' economic performance (see Stiglitz *et al.*, 2009). The importance of this report lies in the economists' warning about the need to revisit current GDP-based measures of economic performance and consider other indicators when assessing people's well-being.

Although the recent world crisis may have prompted this discussion, it has been an ongoing concern of many sectors in society that defend the importance, for instance, of environmental and social variables to capture the performance of countries. The report proposes ambitious ideas, such as adjustments to the measurement of government expenditure and output that will affect the national accounts systems. Nonetheless, this work also signals more feasible actions, including a change from an emphasis on production to measures of well-being understood as income and consumption. The core recommendation of this report is in line with the present report and previous Brazilian research, namely:

- The income and consumption perspective of the household should be emphasised in order to better assess material living standards. This assessment is more precise to the extent that real per capita GDP does not necessarily reflect movements in real household income.
- Income, consumption and wealth measures must be substantiated by indicators that reflect their distribution – a central concern of this present report that will be presented in a more rigorous fashion hereafter.
- Lastly, the authors of the report strongly recommend a combination of objective and subjective measures of well-being, through the use of questions that elicit people's evaluation of their own lives, in order to obtain a more faithful portrait of life quality in countries. In this sense, the CPS developed the Perceived Human Development Index (PHDI) based on the Gallup World Survey, available through the Inter-American Development Bank (IADB), where we studied people's perceptions about the HDI indicators – income, education and health – and their relation to people's level of satisfaction with life. We develop an analysis based on international subjective data in the section below.

Happiness distribution

The PNAD captures the evolution of the various aspects of Brazilian society through time, as well as distributions among various groups defined by income, spatial or socio-demographic features. Nevertheless, the PNAD does not allow a vision of the difference between Brazil and other countries. Additionally, the PNAD is a survey that provides objective variable measures as related by people. To really know particular Brazilian aspects *vis-à-vis* other countries, international data have to be used. Subjective measures of living conditions, such as those explored in the emerging literature on happiness, are not yet part of the IBGE tradition. That is why Gallup data, which includes microdata for 132 countries, have to be used for that purpose. Using that source, Brazilians are not the happiest of the world's citizens: Brazil's average current life satisfaction ranked 22nd out of 132 countries, while per capita GDP at PPP came 52nd out of 132. But Brazilians' projections five years into the future would make them the happiest people in the world. The question asked to all individuals in the sample was: "from 0 to 10, where do you expect to be five years from now?", and with a score of 8.8 points, Brazilians came first, followed by Denmark, Ireland and Jamaica (Table 2.A2.1). When Brazilians were asked to grade the country five years from now, the same survey showed an average mark of 6.8 – two points lower – reflecting a dissonance. How can a country be so good to each of its citizens, yet not so good for the group as a whole? This dissonance indicates that Brazilians tend to be optimistic, but that creating a brighter future for all remains a challenge. The social and economic literature agrees that this mainly means better education.

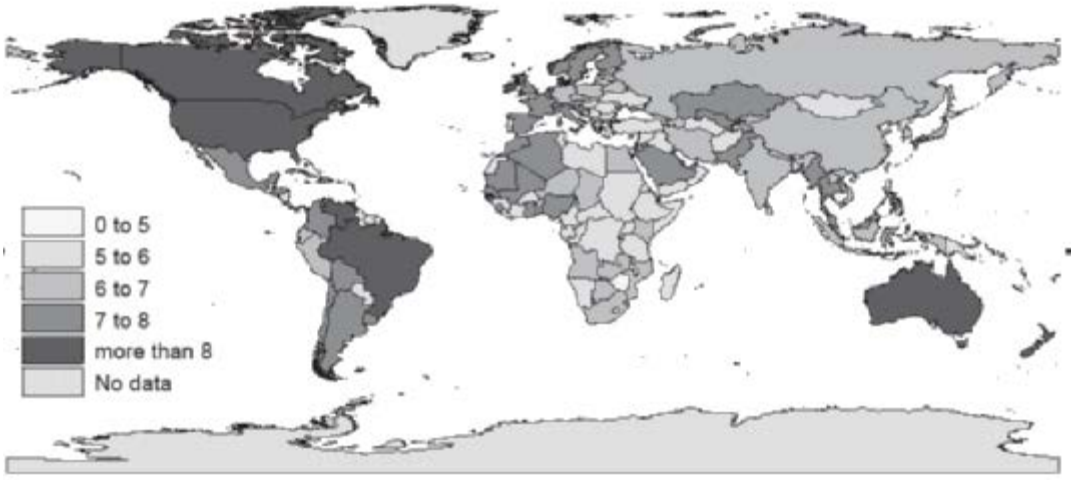
Table 2.A2.1. **Dissonance between future expectations in five years time**

Rank	Expectations on the country		Rank	Individual expectations		Rank	Difference Individual-Country	
37	New Zealand	6.98	**1**	**Brazil**	**8.78**	1	Puerto Rico	3.45
38	Canada	6.97	2	Venezuela	8.52	2	Trinidad &Tobago	2.82
39	Kuwait	6.96	3	Denmark	8.51	3	Jamaica	2.58
40	Benin	6.90	4	Ireland	8.32	4	Honduras	2.46
41	Burundi	6.86	5	Jamaica	8.25	5	France	2.36
42	Colombia	6.86	6	New Zealand	8.14	6	Netherlands	2.13
43	**Brazil**	**6.84**	7	Canada	8.14	7	United Kingdom	2.06
44	Thailand	6.84	8	United States	8.14	8	United States	2.01
45	Bolivia	6.83	9	Australia	8.06	**9**	**Brazil**	**1.94**
46	Kosovo	6.74	10	Panama	8.05	10	Italy	1.79
47	Switzerland	6.72	11	Israel	8.03	11	Costa Rica	1.77
48	Uruguay	6.71	12	Belgium	7.98	12	Germany	1.75
49	Zambia	6.62	13	Colombia	7.97	13	Sweden	1.69
50	Nepal	6.62	14	Sweden	7.97	14	Belgium	1.58
51	Estonia	6.61	15	United Arab Emirates	7.94	15	Australia	1.57
52	Tanzania	6.56	16	Norway	7.94	16	Israel	1.56
53	Niger	6.54	17	Nigeria	7.89	17	Poland	1.49
54	Sri Lanka	6.52	18	Finland	7.86	18	El Salvador	1.49
55	Afghanistan	6.51	19	Costa Rica	7.82	19	Guatemala	1.44
56	Togo	6.50	20	Switzerland	7.82	20	Ethiopia	1.33

Source: CPS/FGV processing GALLUP 2006 microdata.

When looking at the level and distribution of future happiness, Brazil is at the top with respect to the level and second to the bottom regarding inequality. That is, despite a high level of income inequality, Brazil is rather egalitarian in terms of subjective measures. The world maps below illustrate the average country levels of future happiness and their dispersion within countries. The last map applies a simple equivalent income welfare measure proposed by Sen (1976), which combines the average level and dispersion of future happiness – Brazil is the highest on the world ranking.

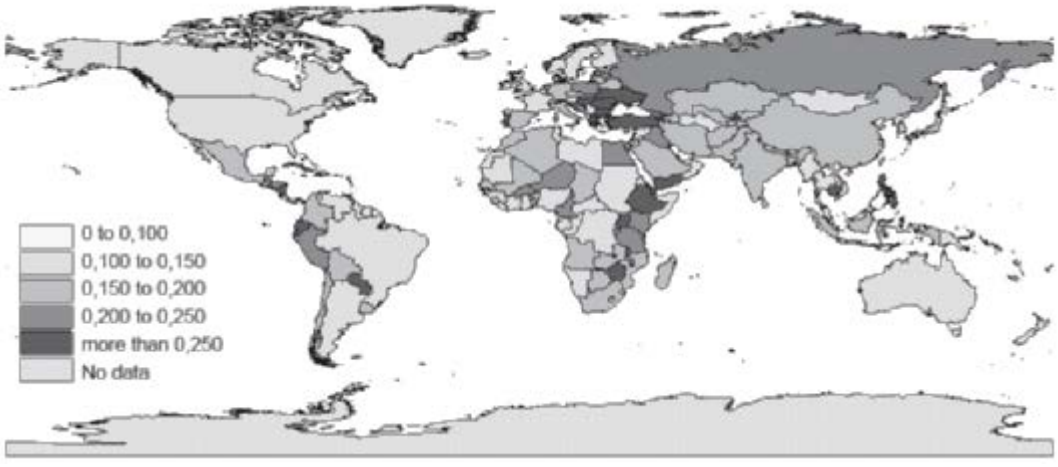
Figure 2.A2.1. **Mean individual future happiness**



Note: The index varies from 0 to 10.

Source: CPS/FGV processing microdata from the Gallup World Poll 2006 – IADB project.

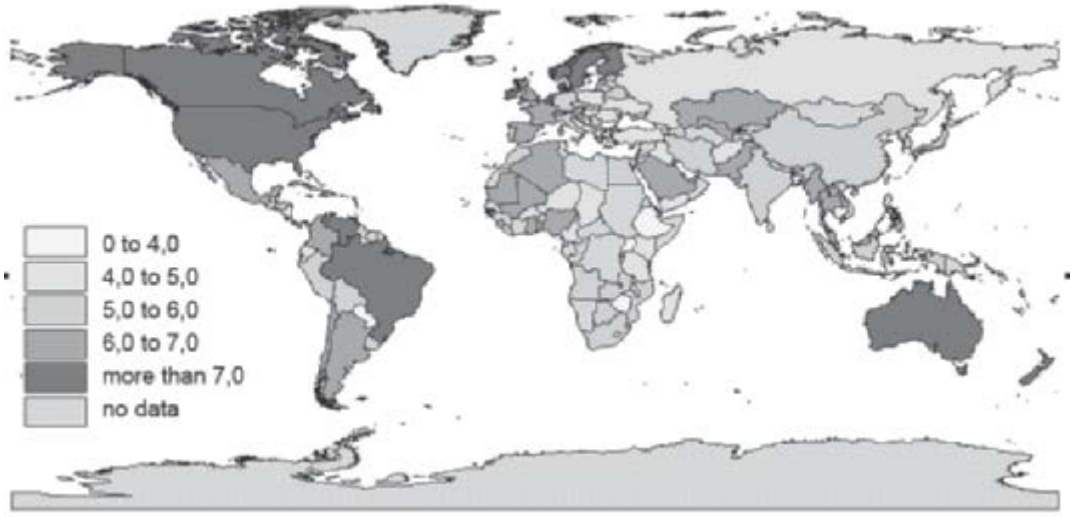
Figure 2.A2.2. **Gini index of the individual future happiness**



Note: Gini index varies from 0 to 1.

Source: CPS/FGV processing microdata from the Gallup World Poll 2006 – IADB project.

Figure 2.A2.3. **Social welfare grade on future happiness**



Note: The index varies from 0 to 10.

Source: CPS/FGV processing microdata from the Gallup World Poll 2006 – IADB project.

Social welfare and inequality measurement methodology

Welfare measures can benefit from different forms of aggregation of individual level data. To measure the pattern of aggregate welfare, either objective or subjective, one needs to specify a social welfare function. Suppose $u(x)$ is the utility function, which is increasing in x and concave; a general class of social welfare function can be defined as:

$$W = \int_0^{\infty} u(x)w(x)f(x)dx \qquad [1]$$

Where $w(x)$ is the weight given to the utility of the individual with income x, which gives a greater weight to utility enjoyed by the poor compared to utility enjoyed by the non-poor. The main problem with this social welfare function is that it is not invariant to the positive linear transformation of the utility function. Following Atkinson (1970), it is possible to get a money-metric social welfare function denoted by x^* from [1] as:

$$W = u(x^*) = \int_0^{\infty} u(x)w(x)f(x)dx \qquad [2]$$

Where x^* is the equally distributed equivalent level of income which, if given to every individual in the society, results in the same social welfare level as the actual distribution of income.

To make welfare measures operational, it is necessary to specify $u(x)$ and $w(x)$. The most popular utility function is a linear utility function which, given by $u(x) = x$, is increasing but not strictly concave in x.

The weighting function $w(x)$ should capture the concerns related to the poor relative to the non-poor in society; the greater the deprivation suffered by an individual with income x, the greater should be $w(x)$. Thus, $w(x)$ should be a decreasing function of x. A simple way to capture relative deprivation is to assume that an individual's deprivation depends on the number of persons who are better off than him/her in society. Such a weighting scheme is given by:

$$w(x) = 2[1 - F(x)] \qquad [3]$$

Where $F(x)$ is the distribution function. This function implies that the relative deprivation suffered by an individual with income x is proportional to the proportion of individuals who are richer than this individual. It can be verified that $w(x)$ in [3] is a decreasing function of x and that the total weight given to all individuals should add up to unity.

Substituting $u(x)$ and $w(x)$ gives the social welfare function which provides the basis for the empirical analysis presented in this chapter. It can be written as:

$$log(x^*) = log(\mu) - log(I) \qquad [4]$$

One possibility is to use alternative utility functions, such as different perceptions of education, income and health. The fact that some of these are dummy variables does not present any difficulty to apply logs – if we work on the data by per capita income centiles or deciles. Logs are particularly useful forms to calculate growth rates or to break down broader welfare measures into its components, especially if using multiplicative forms of different welfare components. Alternative forms of weights besides the Gini index weights can be used to test the sensitivity of the results with respect to the weighing system used (*i.e.* uniform weights).

Gini index breakdown by income source

This annex follows Soares (2006) and Hoffmann (2006) derivation and normalisation proposed. The dynamic decomposition of the Gini index by income sources is also used by Kakwani (1996).

β is the area between the Lorenz curve and the axis, the Gini index (G):

$$G = 1 - 2\beta \qquad 0<=G<1$$

Ratio of concentration

The curve of income concentration *Ch* shows how the accumulated proportion of the income share *h* varies according to the accumulated ratio of the population:

β_h is the area between the curves and the axis, and the ratio of concentration of the share *h* is:

$$C_h = 1 - 2\beta_h \qquad -1<C_h<1$$

Be Φ_h the participation of the share of income *h* in the total income: $G = \sum_{h=1}^{k} \varphi_h C_h$

Thus the Gini index may be divided into *K* shares of the household per capita income.

Decomposition of the Gini index between two years

The percentage contribution of the h-part of the income for this change is:

$$s_h = \frac{100}{\Delta G}\left[(C_h^* - G^*)\Delta\varphi_h + \varphi_h^*\Delta C_h\right],$$

where * is the average between two years

One may distinguish between the effect associated with the change in the income (effect composition) and the effect associated with the change in the ratio of concentration (concentration effect).

The composition effect of the h-part as a percentage of the change in the Gini index is:

$$s_{\varphi h} = \frac{100}{\Delta G}(C_h^* - G^*)\Delta\varphi_h$$

The concentration effect of the h-part as a percentage of the change in the Gini index is:

$$s_{Ch} = \frac{100}{\Delta G}\varphi_h^*\Delta C_h$$

For the period 2001-08 the methodology of decomposition of Gini variations are presented here in more detail than in the text. For example, to the last column in Table 2.A2.2 shows the income from work explains 66.86% of the reduction in inequality expected between 2001 and 2008. The other columns compare 2008 to the other years. The table decomposes the nature of the effects per type of income separating the effect of the contribution of each source in total income, by the change in the relative mass of benefits of the effects of inequality of each source assessed through Gini of total income.

Table 2.A2.2. **Effect of the share of earnings on the change of the Gini index in terms of distribution of household per capita income**

In percentage

Percent effect *Share*	2007-08	2006-08	2005-08	2004-08	2003-08	2002-08	2001-08
Work earnings	116.2	89.3	64.1	65.8	66.4	66.9	66.9
Social security	-1.1	21.7	25.5	27.7	17.6	13.8	15.7
Bolsa Familia	-1.0	-10.0	11.4	7.0	16.8	18.5	17.0
Private transfer	-14.2	-0.8	-0.9	-0.4	-0.7	0.9	0.5
Bonus	0.2	-0.1	0.0	-0.1	-0.1	0.0	-0.1
Total	100.1	100.0	100.0	100.0	100.0	100.0	100.0
Delta GINI	-0.006	-0.014	-0.020	-0.023	-0.034	-0.040	-0.047
Composition effect *Share*	2007-08	2006-08	2005-08	2004-08	2003-08	2002-08	2001-08
Work earnings	0.4	-0.1	0.0	0.0	0.0	0.0	0.0
Social security	-0.2	-0.1	0.2	0.1	0.1	-0.2	-0.2
Bolsa Familia	26.5	-0.7	6.6	9.4	9.3	4.7	5.3
Private transfer	-4.1	3.1	2.6	2.0	1.2	1.8	1.3
Bonus	0.1	-0.1	-0.1	-0.1	0.1	-0.1	0.0
Total	22.7	2.1	9.3	11.4	10.6	6.2	6.4
Concentration effect *Share*	2007-08	2006-08	2005-08	2004-08	2003-08	2002-08	2001-08
Work earnings	115.7	89.4	64.1	65.8	66.4	66.9	66.9
Social security	-0.9	21.7	25.3	27.6	17.5	14.0	15.9
Bolsa Familia	-27.5	-9.3	4.8	-2.5	7.5	13.8	11.7
Private transfer	-10.1	-3.9	-3.5	-2.4	-1.9	-0.8	-0.8
Bonus	0.1	0.0	0.1	0.0	-0.1	0.0	-0.1
Total	77.4	97.9	90.7	88.6	89.4	93.8	93.7

Source: CPS/FGV based on PNAD/IBGE microdata.

Mincerian equation approach to the inequality breakdown

The Mincerian equation of earnings used in this chapter is the basis of a vast empirical literature of labour economics. The salary model by Jacob Mincer (1974) is the framework used to estimate the returns on education, among other variables that determine the salary. Mincer conceived an equation for earnings that would be dependent on explanatory factors related to the academic level and experience, besides possibly other attributes, like sex, for instance.

This equation is the basis of the labour economics particularly in what concerns the effects of education. Its estimate has already encouraged hundreds of studies, that tried to include different educational costs, such as taxes, fees, opportunity costs, learning material, just as the uncertainty and expectation of agents present in the decisions, the technological progress, non-linearity in school, etc., identifying the costs of education and work earnings enable a calculation of the internal rate of return on education, which is the discount rate that must be compared to the market's interest rates to determine the optimal quantity of investment in human capital. The Mincer equation is also used to analyse the relation between growth and educational level in a given society, besides inequality determinants.

The typical econometric model of regression of the Mincerian equation is:

$$\ln w = \beta 0 + \beta 1\ educ + \beta 2\ exp + \beta 3\ exp^2 + \gamma' x + \epsilon$$

Where, *w* is the salary earned by the individual; *educ* is its educational level, measured by years of schooling; *exp* is its experience, whose proxy is the individual's age; *x* is a vector of the observable characteristics of the individual, such as race, gender and region; and ϵ is a stochastic error.

This is a model of regression in the log-level format, that is, the dependent variable (salary) is in a logarithm form and the independent variable, more relevant (education) is on level. Therefore, the $\beta 1$ coefficient measures how much an extra year of schooling causes a proportional variation in the individual's salary. For instance, if estimated $\beta 1$ is 0.18, this means that each extra year of study will be related on average with an increase in salary of 18%.

Deriving, it is found that $(\partial \ln w / \partial\ educ) = \beta 1$

On the other hand, by virtue of chain: $(\partial \ln w / \partial\ educ) = (\partial\ w / \partial\ educ)\ (1 / w) = (\partial\ w / \partial\ educ) / w)$

Thus, $\beta 1 = (\partial\ w / \partial\ educ) / w$, corresponding to the percentage variation of the salary from each unit increase per year of study.

Methodology of the multivariate analysis

The bivariate analysis captures the role played by each attribute considered separately in the demand for insurance. That is, possible and probable interrelations of the explanatory variables are not considered. For example, in the calculation of insurance by state within the Federation, we do not consider the fact that Sao Paulo is a richer place than most states, thus should have greater access to insurance. The multivariate analysis used further ahead seeks to consider these interrelations through a regression of the many explanatory variables taken together.

In order to provide a better controlled experiment than the bivariate analysis, the objective is to capture the pattern of partial correlations between the variables, interest and explanatory. In other words, it is capturing the relations between the two variables, keeping the remaining variables constant. This analysis is very useful to identify the repressed or potential demand (i.e. what are the chances of a person with more education having higher income, if he/she has the same characteristics as the comparison group). We present under request the full Mincerian equations used in the inequality decomposition exercise presented in this chapter.

Chapter 3

Fast growth, but widening income distribution in China

by

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Although the growing income inequality taking place in China since the reform and opening-up has been widely discussed, there has been little empirical evidence based on nationally-representative surveys and reliable statistical methodologies to describe trends over the past three decades. This chapter discusses the potential bias of existing estimates of income inequality in China and considers how inequality would be affected by the recent changes in labour market and social policies.

The chapter presents the growing importance of income from labour in both rural and urban areas. Taking advantage of national data, the authors calculate biased and unbiased inequality indices respectively and find that ignoring the data on migrant workers would lead to overestimating inequality. In addition, poverty trends and China's social assistance system are also discussed.

The Chinese labour market has witnessed strict regulation in recent years. In addition to describing institutional changes in the Chinese labour market, the chapter also tests the impact of these changes on inequality, and concludes that recent labour market changes are promoting income equality.

Introduction

The increase in income inequality that has taken place in China since the reform and opening-up has been widely discussed. Unfortunately, few empirical evidences based on national representative surveys and reliable statistical methodologies describe trends in the past three decades. Although it is impossible to give a clear picture of income inequality in China in a single paper, this chapter tries to describe the related measurement issues, as well as the labour market and social policies affecting inequality.

In addition to the institutional changes complicating income inequality in China, the statistical dilemma that every researcher has to face makes it difficult to clarify the facts about inequality in China. Ravallion and Chen (1999) showed that economic reform went faster than statistical system reform, making China's statistical data extremely complicated and requiring further investigation. This is still the case today. When the National Bureau of Statistics (NBS) conducts the household surveys in rural and urban areas – the Urban Household Survey (UHS) and the Rural Household Survey (RHS) –, only two types of households are sampled: urban residence households and rural residence households. Rural-to-urban migrant households are still to a large extent omitted. Indeed, migrant households are excluded from the selected samples of urban households that are required for the accounts of daily income and expenditure for the NBS survey programme. The simplest reason for doing so is that migrant households usually do not have stable housing in destination cities, and, therefore, are not considered in the survey samples.

Because the number of omitted migrants has grown in size, this group of income earners have a significant impact on the total magnitude and distribution of Chinese residents' income. When examining income levels and distribution in China, three different population groups have to be compared, namely: the urban native population, the rural usual population, and the rural-to-urban migrant population. In other words, estimates based on the current sampling framework could bias the actual situation of income inequality. To some extent, the exclusion of long-term migrant workers and their accompanying family members leads to underreporting migrant income and exaggerating overall income inequality.

Although various factors are involved in determining income distribution, labour market policy is definitely the essential one. As explained in this chapter, since China is rich in human resources, appropriate labour market policies are of great importance. This chapter therefore focuses on labour market policies and their impacts on income inequality trends. In particular, given the significant policy changes that have taken place in the Chinese labour market, the chapter reviews the implications of these changes in detail. Other social policies also affect the income inequality trend directly, and have links with labour market behaviours. However, the impact of social policies on inequality has not been fully evaluated yet, as many of them have been implemented only in recent years (Ravallion and Chen, 2007; World Bank, 2009).

This chapter is organised as follows. Section 3.1 reviews income inequality trends in China. Section 3.2 analyses the main trends in income inequality and poverty in China and examines their links with labour market changes. Section 3.3 explores the role of labour market institutions, regulations and policies that have changed considerably in recent years and points out their implications for income inequality. Section 3.4 reviews the role of social assistance programmes and pension systems and their links to

inequality. Section 3.5 discusses other social policies that affect labour market outcomes and income inequality indirectly, including education policies and health care programmes. The final section concludes.

3.1. Inequality trends in China

It has been widely observed that since the economic reform and opening-up policy initiated in the late 1970s, while China has achieved unprecedented levels of economic growth, its income distribution has widened (World Bank, 2009; CDRF, 2005; Ravallion and Chen, 2007).

No matter what measurements are employed by researchers, they all indicate that inequalities in both income and consumption among rural and urban residents have increased during the reform period, and the idea that income inequality in China is low by international standards has been proven to be a myth (Gibson *et al.*, 2001). The nationwide Gini coefficient of per-capita income increased from 0.31 in 1981 to 0.447 in 2001 (Ravallion and Chen, 2007) and/or 0.46 in 2002 (Khan and Riskin, 2005). This degree of income inequality is indeed relatively high, whether compared to China's own past or to the international general level (CDRF, 2005).

In a more detailed examination (Ravallion and Chen, 2007), the Gini coefficient of per-capita income among rural residents increased from 0.25 in 1981 to 0.37 in 2001, while the Gini coefficient of per-capita income among urban residents increased from 0.19 in 1981 to 0.33 in 2001. In each of the periods, the Gini coefficient of income[1] – namely, 0.31 in 1981, 0.35 in 1990 and 0.45 in 2001 – was bigger than that in either rural or urban areas, respectively, implying the existence of a large and increasing income gap between rural and urban areas.

Using the same dataset and methodology as Ravallion and Chen (2007), the World Bank (2009) extended the estimation of the national Gini to 2005. The result indicates that the Gini coefficient of income inequality rose to 0.453 in 2003 and dropped slightly to 0.443 in 2005 when controlling for cost of living differences. The World Bank report (2009) also indicated that the spatial cost of living makes a difference in measuring income inequality. Adjusting for the spatial cost of living drops the Gini index from 0.453 to 0.411 in 2005.

Although it is widely reported that overall income inequality and the difference between rural and urban incomes in China have reached historically high levels, it is difficult to believe that China can maintain a stable society to support fast economic growth when the media is reporting such high inequality levels. Many studies have found that increasing inequality may be detrimental to economic growth (Persson and Tabellini, 1994; Alesina and Rodrik, 1994; Clarke, 1995; Sabot *et al.*, 1996; Rodrik, 1999). It is also difficult to explain the coexistence of big income distribution gaps and fast economic growth in the world. In particular, Rodrik (1999) pointed out that since 1975 the countries with the most unequal income distribution have been suffering the lowest economic growth. In this regard, it is likely that either inequality prior to the reform was underestimated in China or the post-reform inequality trend has been overestimated.

To understand income inequality in China correctly, some unique aspects of the Chinese market and its statistical system need to be addressed. As a transition economy with fast economic growth, both reform and development complicate the issue of inequality. Therefore, before going through the inequality trends, it is important to understand the institutional changes that have taken place over the reform period.

Since the 1980s, the "household responsibility system" has been introduced into rural China, which significantly improved the incentives for rural households with respect to their agricultural input. With this manifold increase in the work effort, there was a significant decline in the labour time needed for agriculture, and a labour surplus emerged. To absorb this, peasant households, which now had operational autonomy, firstly switched their work from grain production to other agricultural sectors, and then from cultivation to the overall development of agriculture, forestry, animal husbandry, fisheries and household sideline production. This greatly changed the agricultural production structure, and improved labour utilisation and income levels. With the rise in agricultural productivity, however, the capacity of cultivation or "big agriculture" (including farming, forestry, animal husbandry, sideline production and fisheries) to absorb labour was ultimately limited.

The gradual abolition of institutional obstacles has been the key to increased labour mobility. Observing the narrowing capacity to absorb surplus labour in the rural sectors, in 1983 the government began to allow farmers to engage in the long-distance transport and marketing of their products, *i.e.* beyond local market places. This was the first time that Chinese farmers had obtained legitimate rights to do business outside their hometowns. In 1984, the regulations were further relaxed, and farmers were encouraged by the state to work in nearby small towns. A major policy reform took place in 1988, when the central government allowed farmers to work in enterprises or to run their own businesses in cities, so long as they were self-sufficient.[2]

In the 1990s, central and local government took measures to relax policies restricting migration, implying a certain degree of reform in the household registration system. Policies towards labour mobility across regions diverged at that time. The divergence can be found, first, between central and local governments. With regard to employment, income and social security in the country as a whole, the central government encouraged labour migration between rural and urban areas and across provincial borders, while local government attitudes towards migration differed between the origin and destination places. In relatively poor regions where the proportion of surplus labourers and the share of agriculture are high, policies towards labour migration are encouraging and supportive, and governments take measures to help farmers move out to seek better jobs and pays. However, more advanced regions, which are more concerned with the security of local employment, welcome migrant workers only when local economies need an extra labour force. In those regions, policies towards migrant inflows change cyclically with employment pressures– that is, when the local unemployment problem becomes severe, they tend to take measures to avoid migrant workers (Cai *et al.*, 2001).

By the 21st century, the decision-making power for reforming the household registration system had devolved to local, in particular urban, governments. At the same time, the policy orientations of migrants-receiving regions diverged. While migration policy is based on the *hukou* system, the household registration system, in reality institutional factors restricting the flow of labour extend beyond the *hukou* system. Policy costs and benefits related to the provision of social security, social welfare and other public services are also considered. Two kinds of local government, neither seeing any expected loss in local welfare, have changed their negative attitude towards migration: fast-growing cities that have significantly benefited from the ample supply of migrant workers, and local governments whose local budget is so reduced and whose provision of public services is so limited that they are not affected by the inclusion of migrants.

Many researchers have tried to relate the widening income inequality to institutional restrictions on labour mobility. For example, Knight and Song (1999) depicted a distorted rural-urban relationship, which is characterised by large income gaps conditioned by an unlimited supply of labour. Yang and Cai (2003) examined the changes in institutions influencing labour mobility and the impact on the rural-urban income gap. Labour migration means that people move from agriculture with low productivity to non-agricultural sectors with higher productivity. Through the convergence of the marginal productivity of labour between agricultural and non-agricultural sectors, the rural-urban income gap is expected to be narrowed. Logically, Chinese economists tend to believe that with the elimination of institutional barriers that deter migration, the income gap can be reduced by full labour mobility across regions and sectors.

Based on a simulation, Whalley and Zhang (2004) suggested that with the abolition of the obstacles to labour migration imposed by the *hukou* system, existing income inequality will disappear. Lin *et al.* (2004) estimated a responsive elasticity of migrants to the income gap and concluded that migration is indeed a mechanism narrowing the income gap. They also suggested that the present scale of migration is not adequate to reduce the existing income gap, because of the *hukou* system and the fast growth observed in coastal areas.

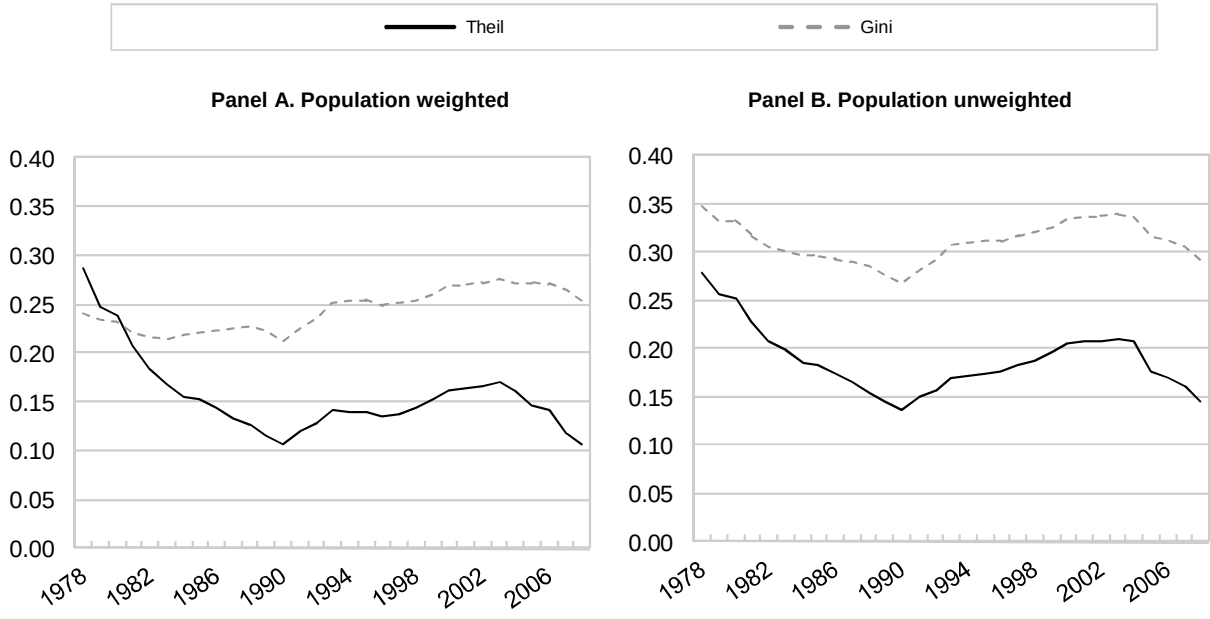
In addition to the factors mentioned above, regional disparities have contributed to overall inequality over the past decades. Considering that individual income is determined, to some extent, by the level of local economic development, regional disparities translate into household income inequality. Estimates based on large nationally-representative samples indicate that the provincial disparities contributed 23.4% to overall income inequality in 1995 and 12.9% in 2003 (World Bank, 2009).

Although trends in regional economic disparities cannot explain the whole story of household income inequality, they are one of the important determinants of household income gaps. In the 1980s, economic reform was focused on microeconomic systems in both rural and urban areas in an effort to improve the efficiency of micro-units and increase growth. Provincial data released by the NBS (2009) show that the Gini coefficient of per-capita GDP among provinces dropped from 0.347 in 1978 to 0.268 in 1990. If weighted by population, the two coefficients are 0.241 and 0.213, respectively.[3]

In 1992, the Chinese government formally accepted the concept of the market economy and accelerated the reforms. Since then, the provincial economic performance has been determined by allocative efficiency. As a result, regional disparities increased, because the coastal areas grew more rapidly than the rest of China, and the Gini coefficient of per-capita GDP among provinces peaked in 2003.

In many economies, for instance, the United States, Japan, and other OECD countries, regional inequality – one of the contributors to overall inequality – has decreased with economic development (Barro and Sala-i-Martin, 1995). The Chinese economy has displayed a similar pattern, with regional disparities declining after 2003. Regional development strategies implemented in the new century *(i.e.* the Western Development Strategies, the Plan of Revitalising Northeast China, and the Plan of Rising Central China) helped, and the Gini coefficient of per-capita GDP among the provinces dropped to 0.29 in 2008. As shown in Figure 3.1, since the early 1990s, when China formally accepted the market economy system, an inverted U shape – a typical Kutznets curve – has been observed.

Figure 3.1. **Gini and Theil indexes of provincial per capita GDP in China, 1978-2008**



Source: National Bureau of Statistics (NBS), *China Statistical Yearbook* (various years).

The economic reforms corrected the distorted economic system, but increased inequality, which partly reflected the effect of the reforms. For instance, a flock of studies (Zhang *et al.*, 2005) found that the returns to education on the Chinese labour market have been increasing during the reform period, which implies that the egalitarianism fostered by the planning economic system has been reformed. This should have translated in turn into higher inequality. Goh *et al.* (2008) found that the earning difference between skilled and unskilled workers explains most of the increase inequality during the period from 1989 to 2004. Sicular *et al.* (2007) showed that 25-30% of the income inequality between urban and rural China could be attributed to differences in education. In this regard, part of the increased inequality is understandable, and policies to contain inequality should be oriented to provide more equal opportunities in human capital accumulation. Section 3.5 of this chapter discusses this issue further.

3.2. Labour market outcomes, poverty and inequality trends: what links?

The importance of income from labour

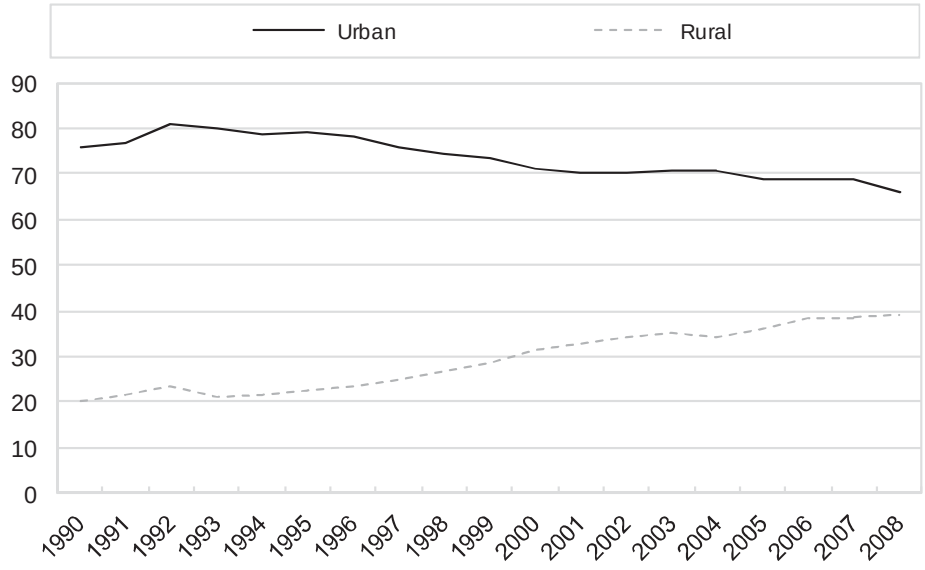
Since the 1990s, the Chinese labour market has undergone major changes, as evidenced by increasing total employment, significant sectoral shifts, and institutional changes. Each of those components of labour market development is linked with trends in poverty and inequality. Both rural and urban household surveys indicate that incomes from the labour market are of great importance to households.

Figure 3.2 shows the share of labour income in household income in both rural and urban areas. Before the radical reforms in the urban labour market in the mid-1990s, employment in urban areas had been guaranteed. That is why more than three-quarters of

the income in urban households was from labour. Urban economic restructuring and the development of capital markets diversified urban household incomes.[4] But in 2008, labour income still accounted for two-thirds of urban household income. Thanks to rural-to-urban migration, wage income has been more and more important to rural households. The proportion of wage income in net income almost doubled from 1990 to 2008. Given labour inputs in agriculture, the share is quite substantial.

Figure 3.2. **Labour income's share of household income in China, 1990-2008**

In percentage



Source: National Bureau of Statistics (NBS), *China Statistical Yearbook* (various years).

Given the importance of labour income in total income, labour market institutions and labour market outcomes have direct links with income inequality. A more equal earnings distribution in the labour market will equalise household income. Recent developments in labour policies and institutions are explained in Section 3.3, after reviewing the stylised facts in labour market outcomes and poverty and inequality trends and their determinants.

In the past two decades, total employment in China has increased, thanks to fast economic growth (Table 3.1). Rural industrialisation provided off-farm employment opportunities for the rural labour force, particularly in the 1990s. In 2008, non-agricultural employment in China reached 468 million people, while the Town Village Enterprises (TVEs)[5] employed 154.51 million (around a third of rural employment). Since 1990, there was a net increase of 114 million in non-agricultural employment. At the same time, the urban labour market expanded considerably due to increasing rural-to-urban migration, and exceeded 300 million people in 2008, when the global financial crisis occurred.

Table 3.1. **China's total employment and its structure, 1990-2008**

In millions

	Total employment	Non-agricultural employment	Urban employment	Rural employment	Migrant w orkers
1990	647.5	258.4	170.4	477.1	-
1991	654.9	263.9	174.7	480.3	-
1992	661.5	274.5	178.6	482.9	-
1993	668.1	291.3	182.6	485.5	-
1994	674.6	308.3	186.5	488.0	-
1995	680.7	325.4	190.4	490.3	-
1996	689.5	341.3	199.2	490.3	-
1997	698.2	349.8	207.8	490.4	38.9
1998	706.4	354.6	216.2	490.2	49.4
1999	713.9	356.3	224.1	489.8	52.0
2000	720.9	360.4	231.5	489.3	78.5
2001	730.3	365.1	239.4	490.9	84.0
2002	737.4	368.7	247.8	489.6	104.7
2003	744.3	378.9	256.4	487.9	113.9
2004	752.0	399.3	264.8	487.2	118.2
2005	758.3	418.6	273.3	484.9	125.8
2006	764.0	438.5	283.1	480.9	132.1
2007	769.9	455.8	293.5	476.4	136.5
2008	774.8	468.3	302.1	472.7	140.4

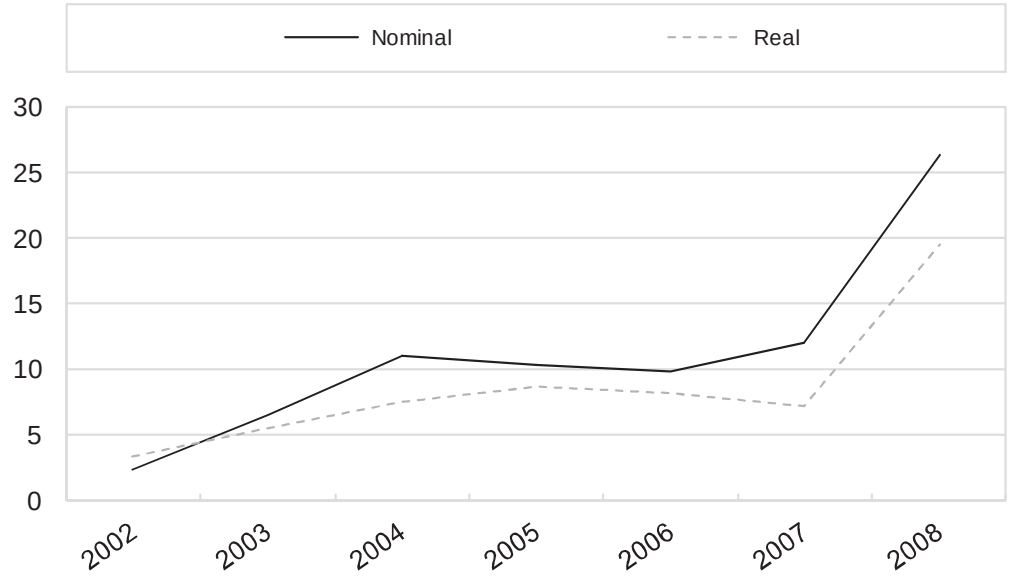
Source: National Bureau of Statistics (NBS), *China Statistical Yearbook* (various years), and *China Yearbook of Rural Households Survey* (various years).

Prior to reform, the Chinese dual economy and the rural-urban segmentation created significant inequality.[6] However, the progressive improvement of the labour productivity of the rural labour force makes it hard to believe that rural-urban inequality has substantially increased.

Indeed, trends in migration and inequality have been reinforced in recent years as the Chinese labour market has been approaching the *Lewisian* turning point, and migrant workers have seen their wage rate growing after two decades of stagnation. Figure 3.3 presents the annual rate of wage growth since 2002 and its acceleration in recent years, in both real and nominal terms. This evolution has been accompanied frequently by labour shortages. According to the NBS (2009), the total number of migrants increased to 150.97 million during the first half of 2009, with 2.6% growth in the second quarter compared to the first quarter. Even with the shock of the financial crisis, the average monthly wage for migrants reached an historic high of CNY 1 334 in 2008, 55% of average earnings in urban units, and 19.6% more than the previous year in real terms. This suggests that income growth for low-income groups is helping to fill the gap between urban and rural residents.

Figure 3.3. **Annual wage growth rates for migrant workers in China, 2002-08**

In percentage



Source: Authors' calculation based on data from Statistical Reports of the National Bureau of Statistics (NBS).

Poverty and inequality: measurement issues

As noted earlier, there are few studies reflecting overall trends in income inequality in China due to data limitations. In addition, some characteristics of current data lead to potential bias in inequality measurements.

Potential bias in current studies

Rural-urban differences in China have persistently accounted for a large share of income inequality. According to the World Bank (2009), rural-urban differences accounted for 40% of total income inequality in 2003, a percentage similar to that in 1995. Sicular *et al.* (2007) found that rural-urban differences explain one-quarter of overall inequality in 2002.

As pointed out by Park (2008), current measurements of inequality are subject to a number of source biases, including sampling bias, the exclusion of some categories of income, problems in the classification of rural and urban areas, and differences in the cost of living.[7]

Some previous studies have already noticed that rural-to-urban migration created sources of bias when measuring income inequality. Until 2002, the NBS urban sample excluded migrants living in urban areas. After they were then included, they represented less than 2% of the sample (Park, 2008), even though the 2005 1% Population Sampling Survey found that 22% of the population living in cities were migrants. Using rural data from 19 provinces and urban data from 11 provinces, Sicular *et al.* (2007) found that

including migrants when calculating urban per-capita income reduces the urban-rural income ratio from 2.27:1 to 2.12:1. Ravallion and Chen (2007) also realised that rural-to-urban migration could be a source of bias when measuring inequality, although their measurement was based on the Urban Household Survey (UHS) and the Rural Household Survey (RHS).

Some surveys, for instance CULS1, CULS2 and CHIP,[8] include migrants in the samples, which makes it possible to observe overall inequality in urban areas. However, they were only conducted in a few cities and lack national representation. More importantly, rural-urban inequality cannot be reflected in those surveys. The 1% Population Sampling Survey is the only nationally representative data with information on income (even if there is only one question on it). By exploring this database, it is possible to see clearly the bias resulting from not including migrants.

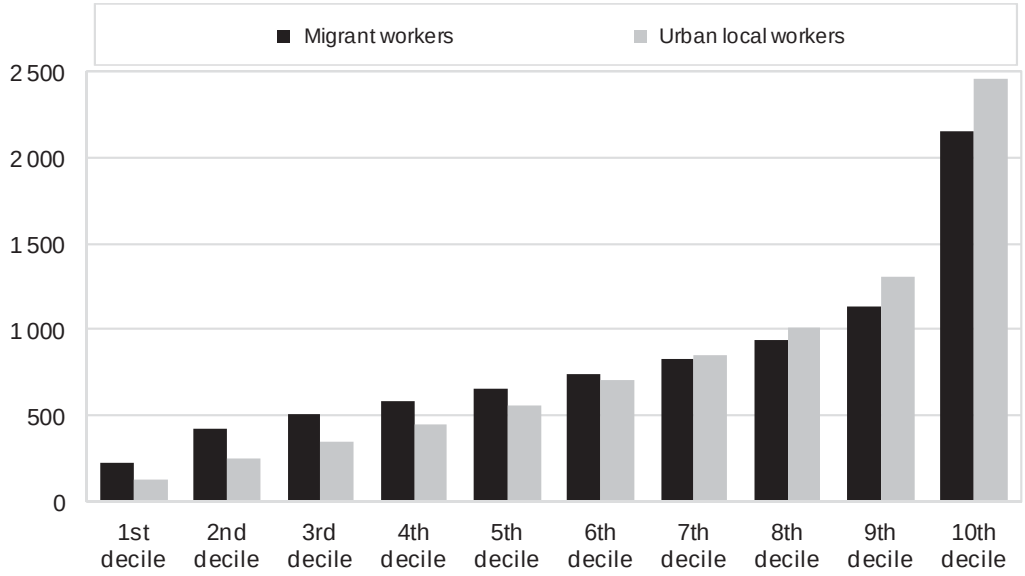
Inequality and its composition

To consider the composition of inequality, the population is categorised as rural residents, rural-to-urban migrants, and urban residents with *hukou*. The key issue here is to observe the impacts of rural-to-urban migration on urban inequality, rural-urban inequality, and overall inequality. Based on calculations that include migrants, this study is going to point out the direction of bias when migrants are ignored. Considering that the 1% Population Sampling Survey in 2005 asked only about labour income, the discussion here is focused on those who are aged 16 and above and are working (rather than the whole population). It should be noted that this restriction makes comparisons with the other measures of inequality difficult. The most obvious issue is that income inequality is typically measured by household income per capita. Unfortunately, there is no identification code by household for migrants in this 2005 census data, so it is impossible to combine the information of migrants together with that of their family members. To some extent, this leads to an overestimation of inequality, in particular rural-urban inequality, because this grouping strategy puts more able individuals (migrants) together and the left-behind family members together. Following Brandt and Holz (2007), incomes are deflated spatially for both rural and urban areas. It is worth noting here that those with incomes reported as zero are not included when calculating the inequality indices.

The first observation shows the impacts of rural-to-urban migration on urban inequality. According to previous studies (Du *et al.*, 2006), due to low social protection, migrants tend to work more intensively in urban areas than do their urban local counterparts. On average, migrant workers' level of earnings is therefore similar to that of local workers, although their hourly wage rates are much lower. In addition, the observation on migrant workers' wage is strongly selective as migrant workers would return to their hometown once they can't make enough earnings in urban labour markets.

The 1% Population Sampling Survey supports the same argument. Figure 3.4 presents the mean of earnings by deciles for both local workers and migrant workers. For low- and middle-income groups, migrant workers have higher earnings than locals, while in high-income groups they earn lower incomes. On average, the monthly income is CNY 811 for local workers and CNY 828 for migrant workers, and the two medians are CNY 624 and CNY 718, respectively.

Figure 3.4. **Mean earnings by decile for local and migrant workers in China**



Source: Authors' calculation based on the 1% Population Sampling Survey.

Table 3.2 displays the inequality indices by group. The first column represents workers in rural areas, the second migrant workers and the third urban local workers. Column 5 is relevant to the current definition of the urban population, but most existing studies were based on the third column. Two findings are interesting here. First, the migrants' earnings exhibit a more even distribution than do local workers' earnings. For instance, the Gini coefficients for urban local workers and migrant workers are 0.424 and 0.310, respectively. Second, when including migrants with urban residents, inequality in urban areas decreases: the Gini falls from 0.424 to 0.405, and more significantly, GE (-1) falls from 0.523 to 0.461.[9]

It is possible that rural-to-urban migration increases the inequality in rural areas if rural migrants are still counted in the rural population. Based on the 1% Population Sampling Survey, the average monthly earnings for people working in agriculture in rural areas are only CNY 271, and the local off-farm workers can make CNY 739 monthly (the medians being CNY 227 and CNY 636, respectively). Hence, the income difference between farm work and off-farm work accounted for most of the inequality within rural areas. Table 3.2 also presents the inequality indices in rural areas based on various definitions of the rural population (columns 1 and 4). In fact, the earnings difference among rural residents is quite substantial, and is mostly contributed by the difference between farm work and off-farm work. Also, when including migrants as rural people, the Gini coefficient increases from 0.426 to 0.444.

Table 3.2. **Inequality indices by population groups in China, 2005**

	Rural workers	Migrant workers	Urban workers	Rural workers + migrant workers	Urban workers + migrant workers
P90/P10	7.678	3.656	7.912	8.623	7.247
P75/P25	2.695	1.777	2.824	3.088	2.618
GE(-1)	0.455	0.193	0.523	0.523	0.461
GE(0)	0.318	0.166	0.329	0.350	0.299
GE(1)	0.330	0.197	0.324	0.357	0.302
GE(2)	0.582	0.405	0.516	0.655	0.497
Gini	0.426	0.310	0.424	0.444	0.405
A(0.5)	0.149	0.085	0.149	0.161	0.138
A(1)	0.273	0.153	0.281	0.295	0.259
A(2)	0.477	0.278	0.511	0.511	0.480

Source: Authors' calculation based on the 2005 1% Population Sampling Survey.

One thing to bear in mind is that the above analysis was based on individual information. Typically, rural households allocate their labour forces to farm work and off-farm work in order to maximise household incomes, so more productive household members tend to migrate and work in urban areas. For this reason, one may infer that per-capita household income measures should be more equal than individual income measures.

The next question is: what is the impact of rural-to-urban migration on overall inequality? As shown in Table 3.2, migrant workers are the most homogenous group in terms of labour income, with a Gini coefficient of 0.310. The income difference within urban and rural areas is at similar level when measured by the Gini coefficient. Most existing studies have missed migrant workers when calculating overall income inequality, which produces an upward bias for the inequality measurement. When migrants are included, overall inequality drops from 0.48 to 0.47 for the Gini coefficient, and from 0.42 to 0.41 for the Theil entropy index GE (0) (Table 3.3).

Table 3.3. **Overall inequality in China, 2005**

	Rural workers + urban workers	Rural workers + urban workers + migrant workers
P90/P10	10.64	10.15
P75/P25	3.60	3.69
GE(-1)	0.67	0.66
GE(0)	0.42	0.41
GE(1)	0.43	0.41
GE(2)	0.74	0.71
Gini	0.48	0.47
A(0.5)	0.19	0.18
A(1)	0.34	0.34
A(2)	0.57	0.57

Source: Authors' calculation based on the 2005 1% Population Sampling Survey.

The final question is, to what extent does the rural-urban inequality explain overall inequality? As noted above, most existing studies find that rural-urban differences explain the bulk of inequality in China. Table 3.4 displays different calculations. The first column was a definition that neglected migration, which is the case of current sampling strategies based on *hukou* locality. In this case, rural-urban inequality accounted for 13.8% of overall inequality in 2005, when looking at GE (2). This proportion is lower than most studies that are subject to the data limitations pointed out by Park (2008).

Table 3.4. **Decomposition of overall inequalities[a] in China, 2005**

	Urban + rural workers			Urban workers + (rural + migrant workers)			Rural workers + (urban + migrant workers)	
	Overall	Within	Between	Overall	Within	Between	Within	Between
GE(-1)	0.668	0.566	0.102	0.657	0.592	0.065	0.552	0.105
%	100	84.73	15.27	100	90.11	9.89	84.02	15.98
GE(0)	0.422	0.323	0.099	0.408	0.343	0.066	0.31	0.098
%	100	76.54	23.46	100	84.07	16.18	75.98	24.02
GE(1)	0.425	0.326	0.099	0.407	0.339	0.067	0.311	0.095
%	100	76.71	23.29	100	83.29	16.46	76.41	23.34
GE(2)	0.74	0.638	0.102	0.705	0.635	0.071	0.61	0.096
%	100	86.22	13.78	100	90.07	10.07	86.52	13.62

a) GE (α) corresponds to the Generalised Entropy measures of inequality and vary from 0 to 1 with 0 corresponding to complete inequality. As the parameter α increases, the GE measures become less sensitive to inequality at the lower end of the distribution and more sensitive at the upper end. The cases of special interest are α values of 0,1 and 2. When α =0 it corresponds to the mean log deviation, α = 1 corresponds to the Theil index of inequality and α = 2 corresponds to one half the squared coefficient of variation.

Source: Authors' calculation based on the 2005 1% Population Sampling Survey.

The last two groupings include migrants, but in different categories: one groups migrants into the rural sample, and the other into the urban sample. When including migrants in the analysis, the inequality index is slightly reduced, which is evidenced by a smaller GE (2) in the last two groupings compared to the first. Both categorisations are of relevance. The second grouping is based on the *hukou* definition, which reflects the institutional differences between urban and rural residents. In this case, rural-urban inequality explains about 10% of overall inequality. The final grouping is based on the definition of residence that has been used by the NBS to define the urban population since 2000. According to this definition, the proportion of rural-urban inequality is slightly lower than the case in the first grouping and explains 13.3% of overall inequality.

Poverty trends in China

Reducing poverty is an effective way to improve both social justice and inequality. China has made great progress in poverty reduction during the reform period. But the poverty reduction strategy has been implemented in rural and urban areas separately. Prior to the 1990s, when rural-urban segmentation was substantial, most poverty was concentrated in rural China, because urban residents were well protected by the welfare system.

The poverty-alleviation process in rural China can be divided into three phases. The first phase was the period 1978-85, when rural reform adopted the household responsibility system. During this period, the number of rural residents living under the

absolute poverty line was halved, from 250 million to 125 million in 1985, which is the most significant achievement in human history. Poverty reduction in this phase can be viewed as the result of successful economic reform in rural China, releasing hundreds of thousands of farmers from the shackles of the People's Commune System and increasing the productivity of agriculture.

The second phase of poverty reduction in rural China started in the mid-1980s and was characterised by government programmes oriented at regional development, especially the Poverty Alleviation Programme in 1993-2000, under which the Chinese government announced its goal to reduce the numbers of the rural poor by 80 million within the last seven years of the century. Encouraged by the experience of the early years of rural reform, the Chinese government initiated the largest-scale poverty-reduction programme since the mid-1980s, with a budget for special poverty-alleviation funds (PAF), consisting of fiscal alleviation funds, food-for-work funds, and interest-subsidised loans to support economic growth in designated poor areas. As Table 3.5 shows, poverty reduction in rural China slowed down at the end of the 1990s.

Table 3.5. **Rural poverty in China, 1990-2008**

	Number of poor (million)	Headcount poverty (%)	Poverty line[a] (yuan/person)
1990	85.0	9.4	300
1991	94.0	10.4	304
1992	80.0	8.8	317
1994	70.0	7.7	440
1995	65.4	7.1	530
1997	49.6	5.4	640
1998	42.1	4.6	635
1999	34.1	3.7	625
2000	32.1	3.4	625
2001	29.3	3.2	630
2002	28.2	3.0	627
2003	29.0	3.1	637
2004	26.1	2.8	668
2005	23.7	2.5	683
2006	21.5	2.3	693
2007	14.8	1.6	785
2008[b]	40.1	4.2	1196

a) The poverty line is defined by the NBS to measure absolute poverty. According to the minimum nutrition standard, one can estimate basic expenditure on food. Poverty is defined by adding the expenditure on non-food goods to basic food consumption. The poverty line of USD 1.25/day in parity purchasing power is equivalent to CNY 1 084 (World Bank, 2009).

b) In 2008, China changed the definition of rural poverty by raising the poverty line significantly and including low-income households, so the poverty incidence in 2008 is not comparable with previous years.

Source: National Bureau of Statistics (NBS) (2009), *China Statistical Abstract*.

The new century could be regarded as the third phase. Both the nature of rural poverty and the instruments of poverty alleviation differ from previous phases. As the total number of rural poor declined, marginalised poverty, which refers to poor people associated with poor human capital and/or a bad geographic situation, dominates rural

poverty (Cai and Du, 2006). Therefore, the poverty-alleviation strategy emphasised targeting households and helping the poor through the social security system rather than through regional development programmes. In recent years, *Dibao* programme has been piloted in rural areas in order to set up a safety net for the poor in rural China.[10] In 2008, the Chinese government raised the rural poverty line significantly, which means that the government's poverty-alleviation efforts are going to cover more low-income people, including rural poor, in the *Dibao* programme (Table 3.6).

Table 3.6. **Urban poverty and *Dibao* coverage**

	Average of *Dibao* line (yuan/person)	Number of beneficiaries (in million)	Poverty Incidence measured by *Dibao*	
			Dibao/Hukou population (in %)	*Dibao/urban* residents (in %)
2002	-	20.7	1.2	4.1
2003	1 788	22.5	5.9	4.3
2004	1 824	22.1	6.0	4.1
2005	1 872	22.3	5.6	4.0
2006	2 040	22.4	5.5	3.9
2007	2 184	22.7	5.3	3.8
2008	2 496	23.4	5.6	3.9

Source: Xitang Liu (2009).

In contrast to rural poverty, it is believed that urban poverty appeared in the mid-1990s when the labour market dislocation took place. Up to now there has been no universal poverty line to measure urban poverty. Since the 1990s, the Chinese government has made efforts to establish the *Dibao* programme in urban areas to support all the urban poor with local *hukou*. The *Dibao* line has been taken as the poverty line to measure urban poverty, although this is subject to a few flaws, and the *Dibao* coverage rate is taken as the incidence of urban poverty (Meng *et al.*., 2005).

Although the Chinese government claimed that the *Dibao* programme has already covered all the urban poor, some studies show that there are leakages (*i.e.* Chen and Ravallion, 2005; Coady *et al.*, 2004). Moreover, the programme design is based on the *hukou* system, so migrants living in cities and counted in the urban population but having a rural *hukou* are not covered by the programme. Therefore, as presented in Table 3.6, there is a discrepancy in poverty incidence between the *hukou* population base and the residence base.

The determinants of inequality

This section moves back from individual earnings to household per-capita income. To look more closely at the impacts of labour market changes on inequality, inequality is decomposed based on a regression on per-capita income of urban households. To do this, the income determinants of urban households have to be known. First, household incomes are determined by household demographic characteristics, which capture the labour-supply effects of urban households, as do human capital variables that reflect the quality of labour. Second, the sectors of activity and informality reflect the quality of work in the urban labour market. Finally, the city dummies capture spatial inequality.

The factors affecting income inequality are grouped as household demographics, human capital, sectoral effects, informality, regional factors, and others (residuals). Table 3.7 presents the regression results based on the two rounds of the CULS household survey and shows that most variables are statistically significant.

Table 3.7. **Regression on household per capita income in China**

Log of per capita income	CULS1 (2001)		CULS2 (2005)	
	Coefficients	t	Coefficients	t
Demographic				
Household size	-0.07	-5.57***	-0.11	-5.97***
Ratio of adult workers to household size	0.46	4.95***	0.64	5.59***
Share of male workers to total family labour force	-0.21	-4.42***	-0.27	-4.15***
Share of female workers to total family labour force	-0.10	-2.3**	-0.24	-3.66***
Average age of adult members	0.02	13.77***	0.02	17.08***
Human capital				
Share of members with college and above education	0.90	17.94***	0.85	18.23***
Share of members with senior high school	0.40	9.46***	0.19	5.05***
Average health status of family members	0.08	6.11***	0.05	4.68***
Ratio of members with party membership	0.37	7.81***	0.32	6.68***
Sectors				
Agriculture	0.52	2.42**	0.22	1.56
Mining and manufacturing	0.39	3.03***	0.16	4.08***
Construction	0.61	3.91***	0.26	4.15***
Transport	0.60	4.95***	0.19	4.94***
Financial services	0.73	4.83***	0.29	5.91***
Other services	0.49	3.97***	0.11	2.94***
Informality				
Ratio of wage employment with contract	0.05	1.07	0.08	1.17
Ratio of wage employment without contract	-0.04	-0.57	-0.06	-0.82
Ratio of self-employment	-0.01	-0.24	-0.16	-2.18**
Regional				
Wuhan	-0.55	-10.1***	-0.61	-17.38***
Shenyang	-0.62	-11.23***	-0.66	-18.85***
Fuzhou	-0.25	-4.89***	-0.27	-8.04***
Xian	-0.68	-12.57***	-0.66	-19.28***
_cons	5.51	43.86***	7.55	59***
Adj-R^2	0.41		0.54	
No. of observations	3 426		2 449	

Note: *** and ** indicates statistical significance at the 99% and 95% level of confidence respectively.

Source: Authors' calculation based on CULS1 and CULS2 data.

Based on the above regression results, the income inequality index by source can be decomposed, applying the methodology proposed by Fields (2002). Table 3.8 displays the decomposition results.

Table 3.8. **Decomposition based on per capita income regressions in China**

	CULS1(2001)	CULS2(2005)
Demographic	**9.67**	**16.47**
Household size	1.18	2.27
Percentage of male workers to total family labour force	0.7	0.64
Percentage of female workers to total family labour force	0.26	0.62
Average age of adult members	2.69	2.95
Ratio of adult workers to household size	4.84	10.09
Human capital	**14.92**	**14.62**
Percentage of members with college and above education	9.79	11.02
Percentage of members with senior high school	1.1	0.05
Average health status of family members	0.9	1.3
Ratio of members with party membership	3.13	2.25
Sectors	**6.21**	**5.82**
Agriculture	0.16	0.04
Mining and manufacturing	0.32	1.09
Construction	0.2	0.36
Transport	1.09	0.52
Financial services	1.21	1.83
Other services	3.23	1.98
Informality	**0.45**	**1.93**
Ratio of wage employment with contract to labour forces	0.09	1.52
Ratio of wage employment without contract to labour forces	0.68	0.04
Ratio of self-employment to labour forces	-0.32	0.37
Regional	**9.67**	**15.28**
Wuhan	3.04	7.29
Shenyang	4.4	3.77
Fuzhou	-1.33	-2.02
Xian	3.56	6.24
Residual	**59.1**	**45.8**
Total	**100**	**100**

Source: Authors' calculation based on CULS1 and CULS2 data.

Demographics

Demographic variables reflect the working capacity of the households (*i.e.* the extent to which the households use the labour market). During the labour market dislocations, income disparities between families with and families without a labour force might be small, because even households with rich human resources were unable to benefit from them. In 2005, when the labour market recovered, the income gaps between these two groups of households increased. This is why Table 3.8 shows an increased contribution of demographic variables to income inequality between 2001 and 2005.

Human capital

The returns to human capital reflect how the labour market is functioning. It is common to see increasing returns to human capital in a well-functioning labour market (Acemoglu, 2002). Although the trend to rapid economic growth could enlarge the income gaps between well-educated and less well-educated workers, policies cannot be proposed to stop that trend. Returns to human capital explain about one-seventh of total income inequality among urban households in both years, and is the largest contributor to income inequality in 2001 and the third-largest in 2005 (Table 3.8). The best policy here should be to equalise the opportunities for human capital accumulation, rather than to undermine returns to human capital.

Informality

The effects of informality on income inequality are mixed. On the one hand, the unemployed and those laid off can find work and earn money in the informal sector. This employment effect could reduce overall income inequality by increasing the incomes of low-income groups. On the other hand, when the labour market is booming, wage growth in the informal sector could lag behind growth in the formal sector. In that case, informality might increase the gap between the formal and informal sectors, and hence overall inequality. Due to these two opposite trends, the contribution of informality to overall inequality is relatively small.

As shown in Table 3.8, the employment effects of the labour market dislocation in 2001 are obvious: informality contributed only 0.45% to overall income inequality. In 2005, the income effect outweighed the employment effects more significantly, and the share increased to 1.93%.

Sectoral effects

When looking at household income inequality, the inter-sectoral effects contribute less than does human capital. In 2001, the sector differentials explained about 6.2% of the inequality among urban households, and the share dropped slightly to 5.8% in 2005.

Regional factors

Regional disparities play a clear role in overall income inequality. They explained 9.7% of overall inequality in 2001, a figure that increased to 15.3% in 2005. It is expected that a more balanced development across regions could serve to reduce income inequality at the micro level.

In addition to the factors listed above, there are still some unobservable variables not included in the regressions. Indeed, the residuals explain more than half of inequality in 2001, and 45.8% in 2005. Labour market discrimination, for example, could be one of the residual variables. However, the unexplained part decreased from 2001 to 2005.

3.3. Role of labour market institutions, regulations and policies

With rapid, sustainable economic development along with population aging, China has ended the era of its unlimited labour supply, and structural labour shortages have emerged. This has created good opportunities to protect the labourers' lawful rights and interests. In these circumstances, China has stepped up the construction of its labour market institutions. A series of institutions and policies on China's labour market have been enacted recently, which include the Employment Contract Law, the Labour Disputes Mediation and Arbitration Law, the Wage Guideline System, the Minimum Wage Regulations and the Employment Promotion Law. In addition, the Chinese government has proposed active and passive labour market programmes to respond to labour market fluctuations.

With regard to the links between labour market institutions, two features are worth noting here. First, labour market institutions indirectly affect income inequality through two channels: labour market rigidity may cause more unemployment and increase income inequality, and government interventions may equalise wages and increase wage equality. Empirical studies on other economies have provided relevant evidence about both (Jenkins, 1995; Jenkins, 1996). Since the details of labour market institutions vary across economies, their role with respect to income inequality is mainly an empirical issue. In addition, the impact of labour market institutions on income inequality is a long-term issue, because these institutions have a systematic influence on the behaviour of employers and employees. In this regard, it is good to observe the relationships between labour market institutions over a long period of time. In fact, previous studies on this topic exploited longitudinal data over long periods (Rama, 2003; Calderón *et al.*, 2005).

Some observations can be made about these relationships on other labour markets. For instance, Koeniger *et al.* (2004) found that labour market institutions, such as unemployment insurance, unions, firing regulations and minimum wages, could account for a large part of the change in wage inequality across 11 OECD countries. Labour market regulations can give rise to inequality due to the labour market rigidity they foster. As Rama (2003) pointed out, countries may push to adopt ILO labour standards, raise the minimum wage or expand government employment, but all this may not have any significant effect on inequality. Based on the data from 121 countries from 1945 to 1999, Calderón *et al.* (2005) observed that *de jure* regulations do not improve income distribution, while *de facto* regulations are weakly associated, overall, with improvements in income inequality.[11]

The empirical analysis of the case in China is intricate due to the following aspects. Firstly, data limitations create difficulties with respect to the measurement of inequality and regulations. Secondly, most labour market institutions have only been set up over a relatively short time, so it is difficult to observe any impact they might have had on inequality at this time. Thirdly, labour market institutions in China are constructed centrally, and there is very little variation across regions. Therefore, it is difficult to disentangle the effects of labour market institutions on inequality from other factors that may also affect inequality.

However, the development of labour market institutions might have had far-reaching significance on China's labour market and its economic development, and the potential outcomes, including their impact on inequality, deserve to be discussed.

Strictness of the Employment Contract Law

As in many other countries, Employment Contract Law describes *de jure* regulations governing the labour market. In 2008, the Employment Contract Law came into effect with the aim of improving the employment contract system, specifying the rights and obligations of the parties to employment contracts, protecting the lawful rights and interests of employees, and building and developing harmonious and stable employment relationships. The Employment Contract Law was built on the basic framework of the labour contract system established by the 1994 Labour Law. However, it has more detailed provisions on the conclusion, performance, amendment, termination and ending of employment contracts, collective contracts, the placement of employees, part-time labour, monitoring, inspections, legal liabilities, and so forth.

Although it is too early to evaluate the impact of this law on labour market outcomes, including income inequality, the new law's regulations are expected to be very influential. In general, the law provides stricter regulations in terms of employment protection, temporary employment, and collective dismissals.

Employment protection

The most influential part of the law is the article on open-ended contracts, which directly embodies employment protection. An open-ended employment contract shall be concluded if an employee proposes or agrees to renew or conclude the employment contract in the following circumstances, unless the employee requests the conclusion of a fixed-term employment contract: *a)* The employee has been working for the employer for no less than ten years; *b)* When the employer just begins to implement the employment contract system or a state-owned enterprise re-concludes the employment contract with the employee due to restructuring; and the employee has been working for the employer for no less than ten years and is less than ten years away from legal retirement age. If an employer fails to conclude a written employment contract with an employee within one year from the date when the employee starts working for the employer, the employer will be deemed to have concluded an open-ended employment contract with the employee.[12]

The spirit of protection is also reflected in the new regulations on severance pay. Severance pay shall be paid to a worker based on the employee's years of service with the employer at the rate of one month's salary for each full year of service. Some employers who tend to use short-term labour services are sensitive to this new regulation. As per the law, a period of service between six months and one year shall be counted as one year and the worker shall be paid. For a period of service of less than six months, a worker shall be paid half a month's wage as severance pay.

Job security regulations are also mirrored by the text on termination of the contract. In many circumstances, such as if the employee has contracted an illness or sustained a non-work-related injury, and the set period of medical care therefore has not expired, or the employee is a female employee during pregnancy, confinement or a nursing period, etc., the employment contract may not be terminated.

Temporary employment

The Employment Contract Law has new regulations on temporary employment. According to the law, an employer and an employee may conclude an employment contract with a term to expire upon completion of a certain job. However, it happens

often that the employer needs to hire workers for short term work, seasonal work or specific projects. As the law stipulates, once an employment contract is concluded, the employer will have the corresponding obligations. Otherwise, the employer will have to pay severance pay.

The regulations on probation periods are quite new and influential. If an employment contract has a term of not less than three months but less than one year, the probation period may not exceed one month. If an employment contract has a term of not less than one year but less than three years, the probation period may not exceed two months. For a fixed-term contract of not less than three years or an open-ended employment contract, the probation period may not exceed six months.

With more and more placement of employees in recent years on China's labour market, the Employment Contract Law has stipulations on the placement of employees. The employment contract between staffing firms and the workers to be placed shall be fixed (not less than two years). Staffing firms shall pay labour compensation to the workers to be placed on a monthly basis. During the periods when there is no work for workers to be placed, the staffing firm shall pay workers compensation on a monthly basis at the minimum wage rate of the place where the staffing firm is located.

Collective dismissals

According to the Employment Contract Law, when an employer breaches the collective contract and infringes the rights and interests of the employees, the trade union may demand that the employer assumes liability. If a dispute arising from the performance of the collective contract cannot be resolved following consultations, the trade union may apply for arbitration and litigation. All these regulations tend to protect the rights and interests of the employees and might reduce employment levels.

The effects of the Employment Contract Law

Although the empirical evidence is lacking, it is expected that the Employment Contract Law might offer workers job protection and a decent wage through interventions in wage formation, which has the effect of equalising incomes among workers. For instance, the law has some content on protecting employees' lawful rights and interests. The employer is not allowed to pay labour compensation below the local minimum wage rate, and the employer must pay for employees' social insurance premiums even during the probation period. Meanwhile, some concerns have been expressed about the effects of the law on reducing labour demand by raising labour costs.

Many people think that, the Employment Contract Law has been formulated to change the disadvantageous status of employees by improving their wages. The inevitable effect of the law's implementation would then be an increase in labour costs. In order to judge whether the implementation of the law would cause labour cost increases, one must distinguish between two kinds of labour cost increase that could be caused by its implementation. The first is caused by punishing the illegal use of labour, and the second is caused purely by certain provisions of the law.

The provisions in the Employment Contract Law on workers' basic rights and interests that should be protected in any situation and at any stage of economic development include the probation period, liquidated damages, minimum wage rates and

working conditions, etc. These are formulated mainly to punish the illegal use of labour by some employers. The labour cost increase caused by these is necessary.

Some other provisions in the Employment Contract Law, including termination of the employment contract, social insurance, severance pay and placement, are formulated to resolve problems in the informal sector, where employees have been in a disadvantageous status in the employment relationship for a long time. These provisions may cause labour cost increases to companies.

According to a field survey in Guangdong Province in November 2008, labour cost increases related to the Employment Contract Law have mainly been caused by the provisions on social insurance and welfare, employment contract termination and conclusion, the minimum wage and probation periods. Compared to 2007, the year before the Employment Contract Law was enacted, the labour costs for social insurance in 2008 had increased by 11.4%. The survey also indicated that regulations on the conclusion and termination of the employment contract also increase labour costs for employers. In addition, large-scale turnovers brought about a 4.6% labour cost increase due to additional severance pay.

Some previous studies observed that the impact of separation costs on employment and income distribution depends on the tightness of job security regulations. For example, Fallon and Lucas (1991) found that very strict regulations on job security depressed labour demand in India and Zimbabwe. Separation costs – in the form of mandatory severance payments – may also reduce the level of employment (Heckman and Pagés, 2000). The new regulations on severance pay, open-ended contracts, probation periods, and dismissals may increase labour costs in China too. Once the effects have been translated into demand for labour, there will be a risk of increasing overall income inequality through additional unemployment.

Other new institutions on China's labour markets

In addition to the Employment Contract Law, other new institutions on China's labour market may also have an effect on income inequality. These institutions include the Labour Disputes Mediation and Arbitration Law, the Minimum Wage System, the Wage Guideline System, the Employment Promotion Law, Active Labour Market Policies after the Financial Crisis, and the Unemployment Insurance scheme.

The Labour Disputes Mediation and Arbitration Law

The labour disputes settlement system is an important legal system for accepting and settling labour disputes. It also offers important legal assistance for parties to labour disputes, especially workers, so as to protect their lawful rights and interests. Since the renewal of the labour disputes arbitration system in 1987, with the issuance of the Regulations on Settlement of Labour Disputes in Enterprises, China has formulated a labour disputes settlement system that is centred on negotiations, mediation, arbitration and lawsuits. This system has played a very important role in protecting the lawful rights and interests of employers and employees, promoting harmonious employment relationships and maintaining social stability.

With the complicated changes that have taken place in employment relationships, the contradictions between employers and employees and the number of labour dispute cases have been increasing, and the cases have been more complicated than before. Many problems persist with the current labour disputes settlement system. For example, it takes

too long to settle labour disputes, and the time limit for application for arbitration is too short, etc. In order to improve the current labour disputes settlement system, the Labour Disputes Mediation and Arbitration Law came into effect on 1 May 2008.

This law is formulated to resolve labour disputes fairly, to protect the lawful rights and interests of the parties and to promote harmonious and stable employment relationships. It has provisions on the mediation, arbitration, application and acceptance of labour disputes, on hearings and awards, etc. The law enhances protection for the lawful rights and interests of the two parties to the employment relationship through lawful procedure and guarantees that the Employment Contract Law will be implemented effectively.

Based on the purpose of the Labour Disputes Mediation and Arbitration Law and its contents, it is expected that this law will affect income inequality similarly to the Employment Contract Law.

The minimum wage system

In 1993, the Regulations on Minimum Wages in Enterprises were issued, which was the earliest minimum wage regulations in China. The 1994 Labour Law included some regulations on the minimum wage, although they were very simple. In January 2004, the enactment of the Minimum Wage Regulations indicated the overall implementation of a minimum wage system in China's labour markets.

The Minimum Wage Regulations include detailed, concrete and operable provisions on the definition, categories, application, formation and adjustment of minimum wage standards. According to this regulation, minimum wage standards refer to the lowest remuneration paid to employees by employers on the premise that employees provide regular work during official working hours the working hours agreed by their labour contract with employers. There are two categories of minimum wage standards: the monthly minimum wage standard and the hourly minimum wage standard. The former applies to full-time employees and the latter to part-time employees.

Many developed countries use a national minimum wage standard, and local governments can improve their own standards according to the local economic situation. However, there is no national minimum wage standard in China. The Minimum Wage Regulations prescribes that each administrative region within a province, autonomous region or municipality can set their own minimum wage standards, which can be adjusted according to changes in local social and economic situations at least once every two years.

In past years, the minimum wage policy has been substantially improved in terms of both coverage and level. All cities in China have introduced a minimum wage system. The level of the minimum wage has been increasing steadily both in nominal terms and real terms. In 1995, the average level of the minimum wages was CNY 195 per month, which went up to CNY 616 in 2008. Most cities have strengthened implementation in recent years, which could be reflected in a high adjustment frequency, a greater absolute increase in minimum wage rates, and high growth rates.

As shown in Table 3.9, cities have increased the frequency of adjustment in recent years. In particular, in 2006, nearly 90% adjusted their minimum wages, which reflects that the minimum wage policy is beginning to be valued by local governments, and the minimum wage is now used as a policy instrument. In 2008, 70% of cities had adjusted their minimum wages.

Table 3.9. **Minimum wage adjustments in Chinese cities, 1996-2008**

Year	Observations	Cities with adjustment	Average growth rates for the whole sample (%)		Average growth rates for adjusted cities (%)	
1996	129	32	3.6	(7.2)	14.4	(7.2)
1997	142	80	7.6	(8.0)	13.5	(5.9)
1998	209	31	2.4	(6.4)	15.9	(7.7)
1999	227	152	16.9	(14.2)	25.3	(9.4)
2000	255	79	8.8	(15.9)	28.7	(15.8)
2001	274	122	9.2	(16.8)	20.7	(20.0)
2002	286	167	9.8	(11.4)	16.8	(10.3)
2003	286	77	4.4	(8.3)	16.3	(7.7)
2004	286	186	15.6	(16.6)	24.0	(14.9)
2005	286	132	10.9	(15.5)	23.6	(14.9)
2006	286	253	18.4	(14.4)	20.7	(13.6)
2007	286	154	10.8	(14.3)	20.0	(13.9)
2008	286	200	13.6	(11.9)	19.4	(9.4)

Note: Standard deviations are in parenthesis.

Source: *Minimum Wage Dataset by City*, data collected by the Institute of Population and Labour Economics, Chinese Academy of Social Sciences.

An examination of the absolute increase and growth rate in minimum wages shows that, during the period 1996-2008, there were six years with double-digit growth rates for the whole sample. But considering that in the early years the minimum wages were much lower, the increase in the last five years was more substantial than ever before. In 2008, just before the outbreak of the global financial crisis, the average increase in minimum wages was CNY 69.1 per month, and the growth rate was far higher than the economic growth rate in the same year.

To see the coverage of the minimum wage by the hourly and monthly rates, it is worthwhile to perform a breakdown for both migrant workers and urban local workers (Table 3.10). A couple of the results are worth noting here. First, the coverage rates based on monthly rates do not differ significantly between migrant workers and urban local workers. However, there is a significant disparity in coverage between these two groups if measured by hourly rates. For example, when measured by hourly rate, the coverage rate in CULS1 is about 48% for migrant workers, but it is 79% for urban local workers, which is a big difference.

Second, looking at the "working hour effects" on gender, there are increased disparities in coverage rate between male and female workers when measured by the two different rates. For instance, based on monthly rates, the difference in the coverage rate between male and female workers was about 9% in 2005, but this increased to 17% when measured by hourly rates. For this reason, changing the criteria to a unitary hourly rate would be helpful in fighting possible discrimination against female workers.

Table 3.10. **Coverage of minimum wage in China: migrants versus local workers**

	Migrant workers				Urban local workers			
	Average monthly wage	Above minimum monthly wage	Average hourly wage	Above minimum hourly wage	Average monthly wage	Above minimum monthly wage	Average hourly wage	Above minimum hourly wage
	(in yuan)	(in %)	(in yuan)	(in %)	(in yuan)	(in %)	(in yuan)	(in %)
CULS1 (2001)								
Male	1 007	89.9	3.71	52.2	1 072	93.9	5.89	82.9
Female	775	86.8	2.71	40.5	815	88.1	4.64	72.6
All	921	88.8	3.34	47.8	963	91.5	5.36	78.5
CULS2 (2005)								
Male	1 140	88.6	4.36	26.3	1 282	88.9	6.95	52.0
Female	879	79.1	3.25	14.4	963	80.0	5.40	34.9
All	1 022	84.4	3.87	21.1	1 144	85.0	6.28	44.6

Source: Authors' calculation based on CULS1 and CULS2 data.

Up to now, most countries in the world have implemented a minimum wage system. The applications and effects of the minimum wage are so complicated that it is very hard to obtain a consensus. The effects of a minimum wage on the numbers of employed and the actual wage levels are the most discussed aspects. The determination of the minimum wage rate and its relationship with the actual wage level are also frequently discussed. As for the effects of the minimum wage on income inequality, first of all, a minimum wage system might help to ensure employees' wage levels and thus might reduce income inequality. Second, a minimum wage system might foster labour market rigidity and thus reduce labour demand, which accordingly might increase income inequality.

The wage guideline system

With the development of China's labour market, workers' wage levels are increasingly determined by labour supply and demand. In 1999, the Ministry of Labour and Social Security issued a Notice on Building a Wage Guideline System on the Labour Market, which is important for labour market development and the reform of enterprise wage systems.

The labour administration authorities are responsible for periodically surveying, collecting, processing and analysing the wage levels of different occupations (types of work) in different kinds of enterprises, formulating wage levels for different occupations (types of work) and issuing them to the society according to nationally unified criteria and requirements. The Wage Guideline System is helpful for formulating justified wage levels on the labour market, providing external reference standards for employers and employees to determine wage levels, increasing information for employers and employees, and improving the success rate for workers' job applications and promoting overall efficiency in labour market operations.

According to the 1999 notice, the wage guideline should be formulated based on collecting and analysing the relevant wage data of each city. The wage guideline usually includes a bottom line, an intermediate line, a top line and an average line, and the formulation method for the wage guideline should make them comparable between

regions. The wage guideline should be issued annually before the end of June and posted in the public employment institutions.

After almost one decade, the Wage Guideline System has made good progress in China. The system started from some big cities, such as Beijing and Shanghai, and then spread to medium-sized and small-sized cities. More than 100 cities in China have now established this system, and the numbers of occupations and types of work with wage guidelines have increased year by year. All this should help in developing models to assist other regions to implement this system.

The establishment of this wage system has promoted labour market development, pushed the form of enterprise wage systems, and been welcomed by both employers and employees. It is very difficult, however, to assess how this system affects income inequality.

The Employment Promotion Law

Since the end of the 1990s, with their mass lay-offs and the rapid increase in the urban unemployment rate, governments have adopted a series of active employment policies, which include building a public and social employment service system, enhancing employment and re-employment training, and providing re-employment support and assistance. These active employment policies have played an important role in promoting employment.

The Employment Promotion Law, which came into effect from 1 January 2008, is the legal tool for implementing active labour market polices. The law is formulated to promote employment, improve co-ordination between economic development and job growth, and promote social harmony and stability. The Employment Promotion Law includes regulations on fair employment, employment service and supervision, occupational education and training, employment assistance, monitoring, inspection and legal liability. All active employment policies are reflected in this law.[13]

Besides the provisions on government's active employment policies, the Employment Promotion Law also includes provisions on fair employment. It is stipulated as follows: all government levels shall create a fair employment environment, eliminate employment discrimination and take measures to support and assist people who have difficulty finding jobs to obtain employment. It prohibits discrimination against female workers, minority workers, disabled workers, workers with infectious diseases and migrant workers in cities from rural areas. Given these provisions, it can be expected that the law will play an important role in promoting employment.

Although this law is less enforceable than other labour-related laws and regulations, since most of its contents are not regulatory, it is expected that local governments in particular will better value employment. Its implementation should increase employment opportunities and help more people to earn income, thereby contributing to a reduction in income inequality.

Active labour market polices after the financial crisis

Labour market policies are a potential instrument for reducing inequality (Rama, 2001). In order to reduce employment losses, the Chinese government has used active labour market policies, particularly since the financial crisis.

Firstly, small and medium-sized enterprises (SMEs) create mass employment opportunities, but their ability to resist risks is low. With the financial crisis, these enterprises have lost more employment. To help the SMEs, the government has taken different measures – such as reducing tax and lessening economic burdens – to preserve employment opportunities and reduce job losses. For example, in 2008, CNY 3.51 billion were earmarked to support the development of SMEs. In September 2008, the Ministry of Human Resources and Social Security and other ministries put forward some measures to help SMEs, such as easing market access conditions, improving administration, giving more policy support, diversifying financing channels and intensifying training. In November 2008, an executive meeting of the State Council proposed that SMEs should be given more credit support.

In December 2008, the Ministry of Human Resources and Social Security and other ministries adopted several measures simultaneously to lighten economic burdens and foster a stable employment situation for enterprises. These measures included: *a)* Enterprises with financial difficulties are allowed to delay payment of social security funds; *b)* The insurance rates for medical, work injury, unemployment and maternity insurance could temporarily be cut back. However, the pension insurance rate cannot be lowered; *c)* Unemployment insurance funds can be used to help enterprises with financial difficulties to stabilise job posts; *d)* Enterprises with financial difficulties are encouraged to provide on-the-job training for their employees; *e)* Economic compensation problems of enterprises with financial difficulties should be solved appropriately. According to one estimate, if the first three measures were fulfilled, enterprises' economic burdens would be reduced by more than CNY 100 billion, and more than 10 million job posts would be stabilised.

Secondly, youth employment and the employment of migrants have also faced difficulties, and some new labour market entrants such as college graduates are also facing more hardship in finding jobs. The Chinese government has taken many measures to help these groups, including employment services and training. In that sense, the Ministry of Human Resources and Social Security and two other ministries jointly issued a Circular on the Implementation of a Special Vocational/Skills Training Programme on 7 January 2009. In 2009 and 2010, training programmes will be offered to help several groups of people who have been hit by the financial crisis to find jobs. These groups include employees of enterprises with financial difficulties, rural migrant workers who have returned home without jobs, unemployed workers, which includes registered college graduates and unemployed rural migrant workers living in urban areas, and new labour market entrants. The employment services for college graduates should be strengthened and the assistance system for college graduates from poor families should be improved.

In 2009, the Central Committee of the Communist Party and the State Council issued a document that includes many measures to promote employment of migrants. Enterprises are encouraged to keep more migrants. Those having financial difficulties can adopt flexible employment, elastic working times and on-the-job training to stabilise jobs. Favourable tax/fee/loan policies and other policies on business registration and information consultation are offered to migrants who return home to start their own business. Enterprises are required to give migrant workers favourable employment treatment and to pay them their full wage on time. Temporary income support or rural *Dibao* are applied to migrants returning home without jobs.

China started its active labour market programmes in the 1990s. When the programmes were kicked off, migrant workers were not included in them. In recent years, some projects

were designed specifically for migrants. Since the global financial crisis, China has been implementing a more active labour market programme, with the migrant workers as the focal group. These post-crisis active labour market policies can be expected to help reduce income inequality, since they will promote employment and help labourers to find jobs.

Unemployment insurance

State-owned enterprises (SOEs) have reformed their employment system since the end of the 1990s when urban workers were massively laid-off or unemployed. In 1996, Shanghai City began to require SOEs to establish re-employment service centres, and in 1998 the central government issued a regulation providing a basic living subsidy for laid-off workers, and promoting their re-employment. All SOEs were required to establish these centres, which were progressively set up nationwide. Re-employment centres are responsible for providing a basic living subsidy to laid-off workers and for paying unemployment insurance, basic pension insurance and medical care insurance premiums, which in principle are jointly funded by central and local government, enterprises, and social contributions.

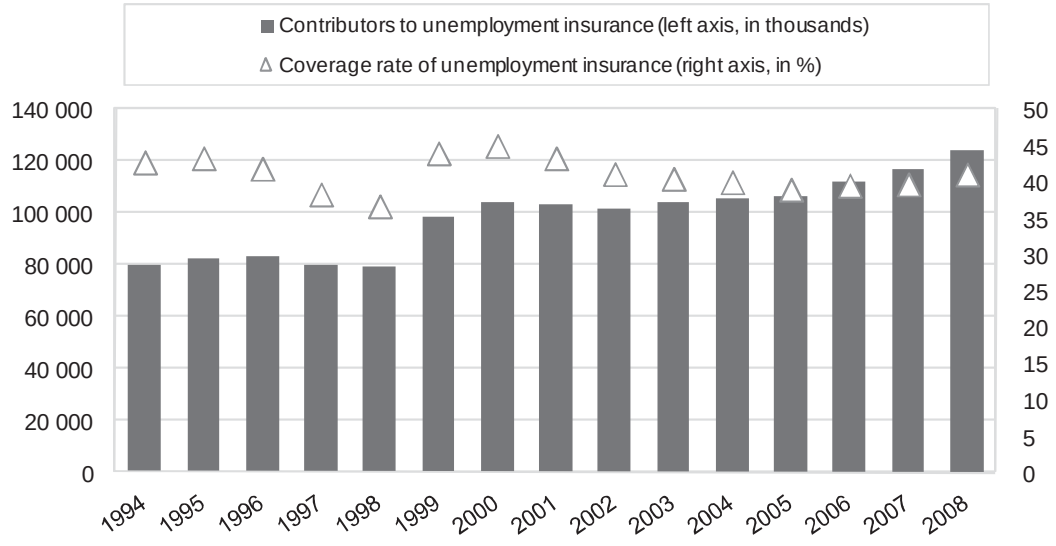
In 1999, the central government issued the Regulations on Unemployment Insurance, which created an institutional environment for the transition from a basic living subsidy system to an unemployment insurance system. Newly unemployed workers were no longer sent to re-employment service centres, but directly entered the unemployment insurance system. Laid-off workers, who had attended a re-employment service centre for three years but had not yet found jobs, were transferred to the unemployment insurance system. Since 2000, for workers laid-off from state-owned enterprises the transition from the basic living subsidy system to the unemployment insurance system was speeded up, and by 2006 the transition was complete.

Figure 3.5 shows the contributors to and coverage rate of unemployment insurance. From 1994 to 1998, the contributors to unemployment insurance stayed almost at the same level. Since the issue of the Regulations on Unemployment Insurance in 1999, the number of contributors started to increase rapidly. At year-end 2008, the contributors numbered 124 million, including only 15.5 million migrant workers.

However, even if the ranks of contributors have increased, no increase has been observed in the coverage rate. Even if there are more and more migrant workers in urban areas, they still have a low participation rate in unemployment insurance, which is why the coverage rate of unemployment insurance does not improve much.

Participants in the unemployment insurance programme can obtain an unemployment subsidy when losing their jobs, whereas the labour income of those not participating will be null when losing their jobs. Rama (2003) found that social security programmes help reduce income inequality. It is not clear whether unemployment insurance in China reduces income inequality or not. However, not much improvement can be seen in the unemployment insurance coverage rate.

Figure 3.5. **Contributors and coverage rate of unemployment insurance[a] in China, 1994-2008**



a) Coverage rate refers to the percentage of urban employed persons who participate in unemployment insurance.

Source: National Bureau of Statistics (NBS), *China Statistical Yearbook* (various years).

Links between labour market institutions and inequality

As noted earlier, due to data limitations it is difficult to determine the extent and causes of any changes in income inequality. The 1% Population Sampling Survey in 2005 permits observations of wage inequality across regions. By combining this with other institutional data collected by the Institute of Population and Labour Economics from the Chinese Academy of Social Sciences (*i.e.* on the minimum wage at city level), some of the impacts of institutional factors on wage inequality can be analysed.

However, this empirical exercise also has limitations. First, the data employed in the following model were collected in 2005, and the most significant changes in labour market institutions have taken place in 2008 (the Employment Contract Law), so they will not reflect this change. Second, the 1% Population Sampling Survey gives only individual wage information, making it difficult to capture income inequality and the effects of household variables. More importantly, wages are reported only for the working population, and so do not capture the effects of unemployment on income inequality, even though unemployment is believed to be one of the major sources of inequality (Jenkins, 1995; Jenkins, 1996). In China, employment growth serves as one of the most important instruments for the reduction of poverty and inequality, so this omission could cause a significant bias. Third, city-level data are employed to observe variations in institutional factors (*i.e.* minimum wages). It is therefore plausible to explore the impacts of institutional factors on inequality at the city level, but not at the regional one, while the latter is supposed to be the most important component of inequality in China.

The following model is applied to analyse the impacts of certain labour market institutions on wage inequality.[14] The left-hand side is the wage inequality index of city *i*,

and the explanatory variables include labour market institutional variables (*i.e.* the minimum wage in city *I MWi*; the proportion of workers with contract CNT*i*; the proportion of workers with social insurance *SIi*; and some structural variables that may affect wage inequality, such as education, EDU; the proportion of migrants MIG; and the ratio of employment for the secondary to tertiary sector, SCT. Provincial dummies (PROV) are added to control some unobservable regional factors. Descriptive statistics for the variables are listed in Table 3.11, and the results are presented in Table 3.12.

Table 3.11. **Descriptive statistics of variables at Chinese city level, 2005**

	Mean	Standard deviation	Min.	Max.
Wage inequality measures				
Theil entropy	0.178	0.047	0.095	0.419
Gini coefficient	0.310	0.031	0.238	0.438
Labour market institutions				
Ratio of minimum wage to average wage	0.485	0.082	0.215	0.705
Proportion of workers signing contract	0.350	0.125	0.079	0.71
Proportion of workers with UI	0.118	0.065	0.015	0.394
Proportion of workers with pension	0.189	0.067	0.039	0.419
Proportion of workers with medical insurance	0.214	0.083	0.059	0.431
Other labour market and economic indicators				
Average years of schooling	9.2	0.7	7.3	11.3
Proportion of migrants in population	0.182	0.109	0.019	0.838
Ratio of secondary employment to tertiary	0.651	0.416	0.127	3.967

Source: Calculation from the 1% Population Sampling Survey and data collected by the Institute of Population and Labour Economics from the Chinese Academy of Social Sciences.

Table 3.12. **The role of labour market institutions on wage inequality at Chinese city level, 2005**

	Gini		Theil	
	Coefficient	t	Coefficcient	t
Ratio of minimum wage to average wage	-0.087	-2.61***	-0.134	-2.51***
Proportion of workers signing contract	-0.087	-3.09***	-0.15	-3.36***
Proportion of workers with UI	0.110	1.92*	0.132	1.44
Proportion of workers with pension	-0.016	-0.38	-0.023	-0.34
Proportion of workers with medical insurance	0.015	0.73	0.453	1.38
Average years of schooling	0.006	1.34	0.005	0.61
Proportion of migrants in population	0.097	3.22***	0.156	3.23***
Ratio of secondary employment to tertiary	-0.015	-2.34**	-0.008	-0.75
Province dummies	Yes		Yes	
Adj. R^2	0.37		0.33	
No. of observations	261		261	
F test for social insurance	5.42**		4.30**	

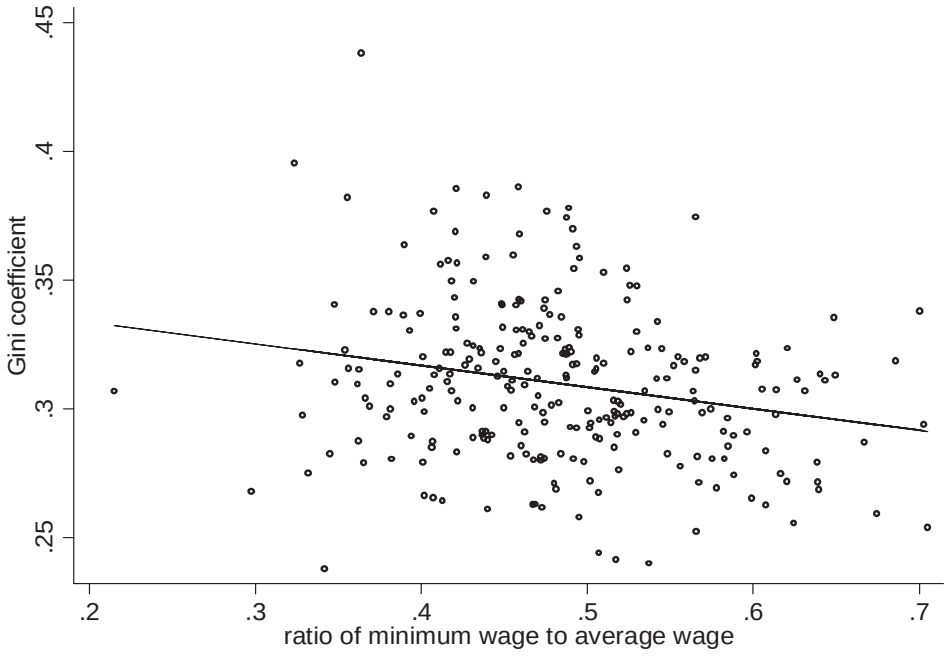
Note: ***, significant at 1%, 5% and 10%, respectively.

Source: Calculation from the 1% Population Sampling Survey and data collected by the Institute of Population and Labour Economics from the Chinese Academy of Social Sciences.

Three categories of institutional variables are concerned: the minimum wage, contract enforcement, and social insurance coverage. Saint-Paul (1994) argued that the minimum wage may have an adverse effect on the income distribution, because it redistributes income from unskilled to skilled labour as well as from the poorest to the lower-middle quintiles, by generating unemployment. Unfortunately, the model here cannot capture the effect of unemployment but reveals its impact on the working population.

As Table 3.12 shows, a high ratio of the minimum wage to the average wage is associated with low wage inequality as measured by both the Gini coefficient and the Theil entropy index. Figure 3.6 depicts the same pattern. Even without controlling for other determinants of wage inequality, scatters of Gini coefficients across cities show a decreasing slope with an increase in the ratio of the minimum wage to the average wage. It seems that minimum wages have a small impact on inequality among the unskilled, because income is shared equally among unskilled workers, and they tend to have a high job turnover. But, again, the effect of the minimum wage on employment is not reflected in this wage inequality analysis, since the unemployed are not included in the sample.

Figure 3.6. **Wage inequality and minimum wage across Chinese cities, 2005**



Source: Calculation from the 1% Population Sampling Survey and data collected by the Institute of Population and Labour Economics from the Chinese Academy of Social Sciences.

The case for contract enforcement is similar to that for minimum wage. Enforcement seems to decrease wage inequality among the working population, but its effects on income inequality are not clear, because the impact of contracts on demand for labour is not captured by the model. The coverage of the three main types of social insurance is included in the equation, but their impacts seem to differ. This test for the three types of social insurance implies that greater protection for workers could equalise workers' wage income.

3.4. The role of social assistance programmes and the pension system

To tackle income inequality, social assistance programmes and the pension systems can play positive roles. Social assistance programmes targeting the low-income groups were expanded substantially in the past years to reduce inequality and alleviate poverty. Poverty-alleviation programmes and the Minimum Living Standard Guarantee Programme (the *Dibao* programme) are the main social assistance programmes in China. As some poverty-alleviation programmes were mentioned in Section 3.2, the focus here will be on the *Dibao* programme. As for the pension system, the role of the urban and rural pension systems on poverty reduction and inequality will be discussed later.

The Dibao *programme*

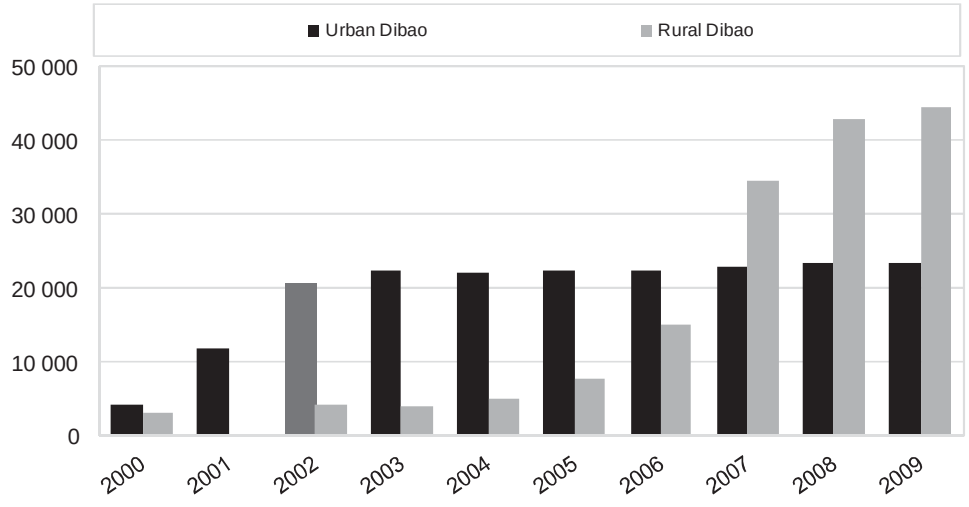
In 1999, the urban Minimum Living Standard Guarantee Programme (*Dibao*) was established all over China. According to its regulations, people whose per-capita household income falls below a locally determined minimum living standard can enjoy this assistance whether or not they receive a basic living subsidy, unemployment insurance or any other insurance. Local governments determine their own minimum living standard by reference to the basic living costs. Every urban resident whose per-capita household income falls below the local minimum living standard can apply for this assistance. The assistance that a household receives is equal to the household size times the gap between the per-capita household income and the minimum living standard. The *Dibao* programme has become the basic social assistance system in China. Before 2007, rural *Dibao* programme has been piloted in some provinces, and the number of pilot provinces has been increasing until the rural *Dibao* programme was finally extended all over the country in 2007.

Figure 3.7 gives the number of urban and rural *Dibao* beneficiaries at the end of the year for the period 2000-08 and until May 2009. The urban *Dibao* programme developed very rapidly from 2000 to 2002, with the number of beneficiaries increasing from more than 4 million to 20.5 million over that period. The number continued to increase to 22.4 million at the end of 2003, and then remained quite stable. By mid-2009, there were 23.4 million urban *Dibao* beneficiaries. The number of rural *Dibao* beneficiaries has increased very rapidly during the last three years, and by 2009 there were 44.5 million rural *Dibao* beneficiaries (three times more than in 2006).

Since the financial crisis, both the urban and rural *Dibao* programmes have been developed steadily. The average urban *Dibao* line was CNY 205.3 and the average monthly urban *Dibao* benefit level was CNY 143.7 in 2008, having increased by 12.6% and 39.9% respectively from 2007. The total expenditure on urban *Dibao* was CNY 38.52 billion, an increase of 40.2% from 2007. The average rural *Dibao* line was CNY 82.3, and the average monthly rural *Dibao* benefit level was CNY 50.4 in 2008, having increased by 17.6% and 29.9% respectively from previous year. In 2008, the total expenditure on rural *Dibao* was CNY 22.23 billion (113.5% more than in 2007).

Figure 3.7. **Chinese urban and rural *Dibao* beneficiaries**[a]

In thousands



a) Data are for December of each year, except for 2009 (May). In 2001, the number of rural *Dibao* beneficiaries is missing.

Source: Ministry of Civil Affairs, *www.mca.gov.cn/*.

The Ministry of Civil Affairs and the Ministry of Finance jointly stipulated that, from 1 January 2008, the monthly *Dibao* benefit per person will increase by CNY 15 in urban areas and by CNY 10 in rural areas. Central finance provides some subsidy for urban and rural *Dibao* beneficiaries. Local governments provide supplements according to their own financial situations. *Non-Dibao* households with extreme financial difficulties could obtain temporary assistance.

In early 2009, the Ministry of Civil Affairs and the Ministry of Finance distributed a one-time subsidy for the urban and rural poor (CNY 9.66 billion) fully funded by central finance. 74 million poor people received this subsidy, which included 62.8 million *Dibao* beneficiaries, 5.3 million unemployed (or *Wubao* beneficiaries), and 6.4 million others from vulnerable groups. Each urban *Dibao* beneficiary receives CNY 150 and each rural *Dibao* and *Wubao* beneficiary CNY 100.

As said above, the *Dibao* programme has become the basic social assistance programme in both urban and rural China, although with much lower benefit amounts in rural areas, and is expected to have reduced poverty and income inequality.

Table 3.13 gives the poverty rates by individual level before and after the *Dibao* transfer in 14 cities. It is evident that after adding *Dibao* to household income, the poverty rates decrease. When half of the median per-capita household income is used as the poverty line, the poverty rate of the 14 cities decreases from 22.53 to 21.77%. When half of mean per-capita household income is used, the poverty rate of the 14 cities decreases from 29.03 to 28.57%. The *Dibao* programme has some positive effect on reducing poverty rates, but it is quite limited.

Table 3.13. **Chinese poverty rates by individual level before and after the *Dibao* transfer**

In percentage

City	Half of median per capita household income		Half of mean per capita household income	
	Pre-D*ibao*	Post-D*ibao*	Pre-D*ibao*	Post-D*ibao*
Wuxi	15.7	15.4	24.1	23.7
Shenzhen	25.4	25.1	41.3	41.3
Zhuhai	30.0	29.2	36.2	36.8
Zigong	20.5	16.9	25.7	23.5
Daqing	26.8	26.8	27.4	27.4
Hegang	19.1	18.7	30.5	30.0
Liaoyuan	29.6	28.6	35.1	35.0
Fushun	23.4	20.0	26.3	24.0
Benxi	12.4	10.4	16.5	16.7
Jinzhou	17.6	16.1	21.1	20.8
Tongchuan	23.7	22.6	29.0	29.4
Baoji	18.3	17.5	23.8	23.7
Xiangfan	28.4	31.0	33.9	33.6
Yichang	24.4	23.1	31.6	31.2
Total	22.5	21.8	29.0	28.6

Source: Wang (2007).

As with all other programmes, targeting is one of the most crucial and difficult problems in the implementation of the *Dibao* programme. For a programme that provides assistance targeted to the poor population, there are two possible successful and two possible negative outcomes. The two successful outcomes are when poor households obtain assistance and non-poor households do not. The two negative outcomes are when poor households do not receive assistance (exclusion error) and non-poor households do (inclusion error). A simple measure of the targeting outcomes of the urban *Dibao* programme is illustrated in Table 3.14 using the data of the China's Urban Employment and Social Protection Survey. The success rate of the *Dibao* programme is then 88% and the "error rate" 12%.

Table 3.14. **Targeting outcomes of the Chinese urban *Dibao* programme**

	Poor households	Non-poor households	Total
Have D*ibao*	Success	Inclusion error	601
	361	240	
Have no D*ibao*	Exclusion error	Success	6 059
	569	5 490	
Total	930	5 730	6 660

Source: Wang (2007).

Undercoverage – defined as the proportion of people who actually need assistance but who are not covered by the assistance programme – and leakage – defined as the proportion of people who actually don't need assistance but are covered by the assistance programme – can also be derived from these data. From Table 3.14 data, undercoverage is 60%, whereas leakage is 40%. Another way to assess the efficiency of an assistance programme is by calculating the programme coverage among the targeted and non-targeted populations. Data from Table 3.14 show that 39% of all poor households receive the assistance of the *Dibao* programme as do 4% of non-poor households.

From the above analysis, it is found that the urban *Dibao* programme has helped to reduce poverty rates, although with limited effect. After adding *Dibao* to household income, poverty rates do not decrease very much. On the other hand, the targeting efficiency of the *Dibao* programme is very low, which points to the conclusion that the effect of the *Dibao* programme on reducing inequality has been limited.

The pension system

Urban pensions

Under the planned economic system, a uniform social security provision was confined to urban workers, ensured and implemented by the Labour Insurance Regulations of the People's Republic of China issued in 1951. According to this, workers with urban *hukou* employed in enterprises are insured for retirement, working injury, diseases, fertility, and widowhood, and are entitled to access housing, and day care and education for their children.

The restructuring of the SOEs exposed the problems of an employer responsible system, which is why the reform of the social security system is aimed at heightening the scope and level of social protection. The state aims to extend old-age insurance (pension provision) up to the provincial level and introduce a multi-pillar social security scheme. As suggested by the World Bank (1994), combining a fund-raising programme of individual accounts, social pooling, enterprises annuities and commercial insurance is intended to cover as many beneficiaries as possible at relatively low benefit levels ("wide coverage, low level programme").

With the lessons learned from this experiment in pension reform, the State Council issued the Decision on Establishing a Uniform Basic Pension System for Enterprise Workers in 1997, which adopted a uniform pension system that combines individual accounts with social pooling. Because there was no accumulation of pension funds at the enterprise level, the newly established funds had to fill the gap between the actual payments needed and the money already collected. Under this scheme, workers who began their work after the reform started to save for their own retirement without problems, but the retired had no accumulated funds. Workers who joined the enterprise before the reform left a gap uncovered by their own savings, and their individual accounts were empty.[15] Filling this gap is therefore the major purpose of further reforms of the pension system.

The biggest problem with the full operation of the pension system lies in the shortage of funds, which is mainly a cash flow gap between the expenditure needed and the revenue collected. In addition, during the period of institutional transition and industrial structural change, many SOEs were unable to offer old-age insurance premiums due to losses, and a high proportion of the social security payments for laid-off workers and retirees became unaffordable. Meanwhile, newly emerged enterprises in profitable

industries, with relatively young employees, had no incentive to participate in social pooling insurance, and tried to evade payments for the insurance programme, leading to a further shortage of social security funds.

The current pension fund has, as has already been mentioned, two parts: social pooling and individual accounts. However, these two sources of money are accumulated in (and provided from) a single account. Therefore, the current pension system is actually pay-as-you-go (PAYG), in which the individual accounts is only nominal and in reality is used to fill the gap between the accumulated and provided pension.

In urban China, the pension payment for retirees is currently quite generous. For that reason, urban residents who have participated in the pension system are very likely to be out of poverty when retiring. Using China's Urban Employment and Social Protection Survey data,[16] the poverty status for different age groups can be calculated, applying two different poverty lines: the *Dibao* poverty line and half of the median per-capita household income, which is a typical way to measure whether a person is relatively poor within a sample. As Table 3.15 shows, no matter which line is used, the poverty incidence decreases significantly when reaching 60 years of age. Urban pensions play an important role in reducing poverty, and accordingly, inequality.

Table 3.15. **Chinese poverty rates by age group at individual level, 2004**

In percentage

Age group	*Dibao* poverty line			Half of median of per capita household income		
	With pension	Without pension	All	With pension	Without pension	All
Entire sample						
<40	-	-	14.9	-	-	24.0
41-50	-	-	18.9	-	-	28.1
51-60	5.7	18.0	9.3	11.8	28.3	16.6
61+	2.4	20.2	8.8	7.6	27.4	14.8
All	-	-	14.1	-	-	22.5
Male						
<40	-	-	14.2	-	-	23.1
41-50	-	-	19.2	-	-	28.8
51-60	7.2	23.9	10.8	13.6	36.5	18.5
61+	2.1	16.2	5.6	7.0	22.5	10.9
All	-	-	13.5	-	-	21.9
Female						
<40	-	-	15.7	-	-	25.0
41-50	-	-	18.7	-	-	27.4
51-60	3.8	14.7	7.9	9.7	23.8	14.9
61+	2.8	22.4	12.0	8.5	30.0	18.8
All	-	-	14.6	-	-	23.1

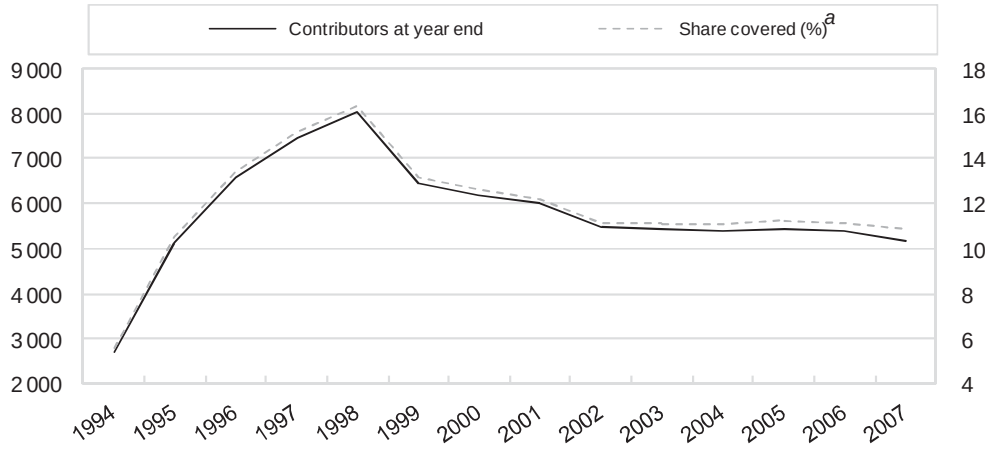
Source: China's Urban Employment and Social Protection Survey data.

Rural pensions

The Seventh-Five-Year Plan (1986-90) pointed out that China should construct a basic social security system that raised and accumulated funds through various channels. In 1991, the Ministry of Civil Affairs was charged with reforming the old-age pension system in rural areas (including that of Township and Village enterprises), and in 1992 issued the basic principles establishing the rural old-age pension system and the accumulation and management of pension funds.

From 1991 to 1994, some counties established a rural pension system (28 provinces, autonomous regions and municipalities did so by 1994) and from 1995 to 1998 this was developed steadily.[17] Indeed, the number of contributors increased very rapidly (from 27.18 million in 1994 to 80.25 million in 1998) with an average annual growth of 24%. The proportion of rural labourers contributing to the system increased from 5.6% in 1994 to 16.4% in 1998 (Figure 3.8).

Figure 3.8. **Coverage of the rural pension system in China, 1994-2007**



a) The share covered refers to the proportion of contributors among rural labourers.

Source: Data from 1994 to 1997 are from Ministry of Civil Affairs, *A Statistical Report on the Development of Civil Affairs* (various years); data for 1998 are from the Ministry of Labour and Social Security, *A Statistical Report on the Development of Labour and Social Security in 1998*; data from 1999 to 2006 are from the National Bureau of Statistics and Ministry of Labour and Social Security, *China Labour Statistical Yearbook* (various years), China Statistics Press; data for 2007 are from the Ministry of Labour and Social Security, *A Statistical Report on the Development of Labour and Social Security in 2007*.

In July 1999, the State Council pointed out that rural areas have no capability to construct a universal pension system and decided to stop accepting more participants in the system. Areas with enough capability could transfer to commercial pension insurance gradually. As a result, since 1999, the number of contributors to rural old-age pensions decreased (from 64.61 million at end 1999 to 51.71 million in 2007), and operating the pension funds became more and more difficult. The proportion of contributors among rural labourers also decreased from 13.2% in 1999 to 10.9% in 2007.

The rural pension system was then piloted by various regions. Unlike the urban pension system, which is a mature and nationally universal plan, the rural pension system was still experimental at the beginning of the 2000s, and presented large variations between regions in terms of programme design, the levels of benefit and pooling, and coverage rates.

The Chinese government formally extended the pension programme to rural areas in September 2009, through the Suggestions on Launching New Rural Pension Programmes issued by the State Council. According to that document, 10% of counties would pilot the programme in 2009, and all rural areas would be covered by 2020. Combined with household support, land tenure, and social relief, the objective of this programme is to support the rural elderly.

Under this programme, rural pension funds come from individual contributions, collective subsidies, and government subsidies. Rural residents aged 16 years or above and out of school can participate in the programme if they wish. Rural residents aged 60 or above are eligible to receive a basic pension without having contributed, and the elderly covered will receive a monthly payment of CNY 55 per person. Although this payment is very low, it is expected to increase gradually and contribute to reducing inequality.

3.5. The impacts of other policies on inequality developments

As noted above, as the labour market has developed, the increasing returns to human capital have contributed to income inequality. Although public policy cannot restrict this trend, it can provide more opportunities to the most disadvantageous groups. In addition, the extension of social programmes to migrants and/or rural residents is an effective way to fill the rural-urban gap.

Improvements in education

The insufficient public input into education may cause differences in educational attainments between groups and then translate into the labour market as increased income inequality. As shown in Table 5.1, the share of public input into education is lower in China than in other major economies. When adjusting the share by the ratio of the school-age population, China's share is even lower. To make up the shortage of public input into education, households have to spend more resources on education, which means that children from poor families are less likely to have access to education.

Table 3.16. **Expenditures in education in selected economies, 2005**

As a percentage of GDP

	Expenditure on education			Adjusted ratio	Adjusted public input
	Public	Private	Total		
China	2.8	3.3	6.1	1.16	2.41
France	5.6	0.5	6.0	0.90	6.22
Germany	4.2	0.9	5.1	0.77	5.45
Japan	3.4	1.5	4.9	0.74	4.59
Korea	4.3	2.9	7.2	-	-
United Kingdom	5.0	1.2	6.2	0.91	5.49
United States	4.8	2.3	7.1	1.00	4.80
Mexico	5.3	1.2	6.5	-	-
India	3.8	-	-	1.43	2.66
OECD average	5.0	0.8	5.8	-	-
EU-19	5.0	0.5	5.5	-	-

Source: Data on China is calculated from the *Statistical Yearbook 2008* (NBS); the other countries are from OECD (2008*), Education at a Glance: OECD Indicators 2005-2008*.

The Chinese government realised the importance of educational inputs for economic growth and inequality and in 1994 stipulated that expenditures on education must be above 4% of GDP (Educational Law*)*. However, this has not been achieved, even though the share of public inputs into total education has steadily increased (from 44% in 2001 to 57% in 2007). In addition, educational policies implemented in recent years have focussed on improving education equality.

In 2003, the State Council issued the Resolution on Strengthening Rural Education, which exempts tuition for compulsory education students in poor rural areas. In addition, the government subsidises resident students' living costs. As a result, the central government invested CNY 10 billion on school construction and student subsidies. Until 2006, all students from western China were exempted from paying tuition, and in 2007 the central government decided to extend that exemption to all rural students. In the first half of 2007, the central government spent CNY 12 billion to support the programme, and around 150 million rural students benefited from it. Due to these exemptions, households in central China spend CNY 180 less to support a student in primary school, and CNY 230 less in junior high school (CNY 140 and CNY 180 respectively in western China) (NDRC, 2007). To sustain this programme, public spending on rural education increased by CNY 218 billion from 2006 to 2010. In autumn 2008, the programme was extended to all urban areas.

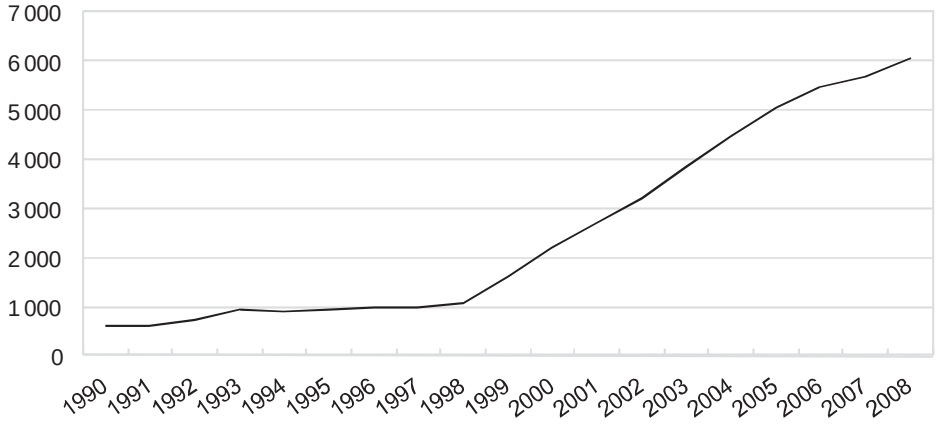
Another policy that equalises educational opportunities does so by facilitating access to education for migrants' children in urban areas. Despite some experiments in *hukou* reform at local levels, the current system prevents migrant workers from receiving the necessary housing, medical care, children's education, and other public services at reasonable prices. For example, in the cities sampled in CULS, the average tuition for rural migrants was CNY 1 569 and CNY 1 557 in 2001 and 2005, respectively. However, if they held local *hukou*, the tuition would fall to CNY 897 and CNY 969, respectively (Park and Chan, 2007).

Policy makers have already realised the need to provide equal education for migrants. In 2006, the State Council issued the Suggestions on Solving Certain Issues Regarding Migrant Workers, which explicitly stipulates that local governments should take responsibility for compulsory education for migrants' children. Migrants' children who fulfil the local admittance conditions should attend public schools and their tuitions and miscellaneous fees should be exempted, without any additional fees. Schools accepting migrants are publicly financed, depending on the number of migrants' children they have.

Another significant achievement in education has been the expansion of college recruitment – recruitment in higher education. In the new century, China has significantly expanded the higher education sector. As shown in Figure 3.9, the total college enrolment reached a historical high of 6.07 million in 2008, ten times more than in 1990. Before the expansion of higher education, attending college was regarded as an elite education, but it is now mass education. Considering that the returns to education are increasing, making higher education universal will be helpful to fill the income gap in the future.

Figure 3.9. **Total college enrolment in China, 1990-2008**

In thousands



Source: National Bureau of Statistics (NBS), *China Statistical Yearbook* (various years).

Health care system reform in rural China

Prior to the reforms, rural health care was an integral part of the collective farming system in China. With the dissolution of collective farming in the early 1980s, however, the central government adopted a *laissez-faire* policy toward the governance of rural communities, and the rural health care system was progressively abandoned. By 1993, only about 10% of China's rural population had health insurance, and farmers who became sick either spent down family savings to purchase health care or forwent medical services altogether. Indeed, health care expenses caused 2.5% of households to fall below the poverty line in 1995 (Gustafsson and Li, 2003), and 22% of poor households attributed their poverty to illness or injury in 1998 (Ministry of Health, 1999). Although it is difficult to measure, the difference in the health care system between rural and urban areas accounted for much of rural-urban disparities.

After decades of neglect, the government put health care for China's 900 million rural residents back onto the government agenda in October 2002. Under the auspices of the New Co-operative Medical System (NCMS), the government instituted a new system of risk-pooling for China's vast rural population. The NCMS includes three features that distinguish it from the Rural Co-operative Medical System: joint responsibility for financing; local responsibility for many aspects of programme design, implementation, and management; and voluntary participation.

Financing for the NCMS programme within each county is the joint responsibility of the central, provincial and sub-provincial local governments, and of individual participants. At the early stage, the central government stipulated a minimum participation fee of CNY 10 per person (CNY 30 in some rich coastal counties), which is subject to a CNY 20 match from various local governments (CNY 40 in rich coastal counties) and CNY 20 from the central government (restricted to poorer provinces). The government input to NCMS has been increasing over time. The Suggestions on Consolidating and Developing NCMS issued by the Ministry of Health in 2009 requires that financing for each person should reach CNY 100 in 2009 and CNY 150 in 2010. The

central government subsidises each person CNY 40 in central and western China, while individuals are expected to contribute CNY 20.

By the end of 2008, 2 729 counties (95.5% of the total) had implemented the NCMS. In 2008, the NCMS fund expended CNY 42.9 billion and 370 million person benefited. In 2008, the rural medical assistance covered 9.36 million person and financed the rural poor to join NCMS 27.8 million person.

China has been increasing public spending on social investments, which is supposed to increase the human capital of labour. Even at the early stage of the NCMS implementation, participation in the system has reduced poverty by smoothing consumption when farmers faced health shocks (Brown *et al.*, 2009). With the expansion of the NCMS, the central government added more resources to the system, increasing the reimbursement benefits significantly, which should help to reduce inequality. In addition, public spending on health is helpful to increasing labour productivity and in turn to reducing inequality. The same effects could be found due to educational investments. It is believed that improving education in poor areas will be helpful to increasing the beneficiaries' long-run income.

3.6. Conclusion

This chapter reviews labour market institutional changes in recent years in China and their impacts on income inequality. It questions the commonly-held notion that general inequality and the rural-urban income gap have been increasing over time. Taking note of the exclusion of long-term rural-to-urban migrants from official income statistics, the chapter tries to identify these omitted people in order to examine their income in comparison with both rural and urban household incomes. The main findings confirm that labour mobility has an important role in narrowing the rural-urban income gap, not only in theory but also in practice. Although the empirical efforts are still preliminary and are not sufficient to prove this conclusion, they lay out a new direction for further research on the subject.

Labour market developments spur the expansion of rural and urban employment, notably, labour migration across rural-urban boundaries. Moreover, as more people have shifted from unemployment and underemployment to full employment through mobility between regions and sectors, mainly benefiting rural workers and their families, the income gap between rural and urban areas has tended to narrow. Since the rural-urban gap contributes the major part of overall inequality, the narrowed gap will in turn reduce the country's overall income inequality.

A correct understanding of the facts helps to determine and modify policy priorities. Institutional barriers deterring labour mobility are being eliminated progressively. Labour migration has been facilitated and in turn reduced the rural-urban income gap. Therefore, the primary distribution of income through the labour market is not the major factor leading to inequality. The policy suggestions should be to encourage further the relaxation of labour mobility policies and to push forward with complete urbanisation, instead of setting up more regulations deterring labour migration. Accordingly and more importantly, the government should focus on building up the social welfare system and through it eliminate the rural-urban gap in terms of provision of and access to social welfare, instead of trying to redistribute through labour market interventions.

There is a potential problem raised by the population reallocation shown in this chapter. That is, the large flows of the most productive population in the rural sector to the urban sector have brought about, and will further lead to, a relative fall in rural usual households' income level. Whereas this chapter mainly focuses on the positive effects of labour migration in reducing income inequality, the relative status change of those left-behind is also a crucial challenge that policy makers have to face. That brings forward a pressing reform of the *hukou* system, under which permanent migrant workers and their dependent family members could be gradually transformed into permanent urbanites. This also means the urbanisation process should be completely accomplished. This reform will balance the population structure between rural and urban areas and normalise the mechanism for adjusting labour supply-and-demand among regions and sectors.

Notes

1. As described by Ravallion and Chen (2007), the complete microdata are not available for any year. See the World Bank (2009) for the same discussion.
2. At the time, the system for rationing food and necessities had not been abolished, and people without local hukou were not entitled to coupons for buying food and other necessities in the local market.
3. The developed coastal areas are also the most populous areas in China. Therefore, the inequality measures weighted by population are relatively smaller. This has often been ignored in some studies.
4. According to the NBS definition, household incomes include wage incomes, assets incomes, transfers and business incomes.
5. By encouraging rural industrialisation, the TVEs developed rapidly in 1980s and created more and more job opportunities for the rural labour forces. This was called "leaving the land without leaving the hometown". See Cai (2009) for further details.
6. Although not shown in official statistics, this is indicated by the fact that in 1978, 80% of the population lived in rural areas at subsistence levels and that 250 million rural people were below the poverty line.
7. For a review of the literature on inequality issues in China see Annex 3.A1.
8. CULS1 and CULS2 refer to the China Urban Labour Survey, surveys that were conducted in 2001 and 2005 by the Institute of Population and Labour Economics of the Chinese Academy of Social Sciences. CHIP refers to the China Household Income Project survey.
9. GE (α) corresponds to the Generalised Entropy measures of inequality and varies from 0 to 1 with 0 corresponding to complete inequality. As the parameter α increases, the GE measures become less sensitive to inequality at the lower end of the distribution and more sensitive at the upper end.
10. Rural and urban Dibao programmes will be further discussed in Section 3.4.

11. In Calderón *et al.* (2005), de jure regulations are defined as what is set out in the national labour code. De facto regulations are approximated by information on categories such as minimum wages, conditions of work and benefits, trade union membership and collective bargaining, and public sector employment.

12. The employer can terminate an employment contract in the following circumstances: 1) The employee is proved to be unqualified; 2) The employee materially breaches the employer's rules and regulations; 3) The employee causes substantial damage to the employer by a serious dereliction of duty or due to graft; 4) The employee has established an employment relationship with another employer that materially affects the duty with the first employer.

13. For example, the law prescribes active financial policies as follows: the nation shall implement active financial policies to promote employment, add more funds, improve the employment environment and increase employment. It also has provisions on building a public and social employment service system. It stipulates three security prongs: an unemployment insurance system; securing the basic living of unemployed workers; and helping them to get re-employed. It also includes detailed provisions on occupational education and training (related to enhancing employment and re-employment training) and provisions on employment assistance (related to re-employment support and assistance).

14. The model can be written as:
$$ineq_i = \alpha_0 + \alpha_1 MW_i + \alpha_2 CNT_i + \alpha_3 SI_i + \beta_1 EDU_i + \beta_2 SCT_i + \beta_3 MIG_i + PROV + \varepsilon_i$$

15. In reality, individual contributions and the social pooling funds were not divided clearly, and were in fact mixed together. The accumulation from the individual accounts was often used to cover any insufficiency in the social pooling fund.

16. This survey was conducted by the Institute of Population and Labour Economics from the Chinese Academy of Social Sciences in 14 cities in 2004. The sampled cities were Wuxi, Shenzhen, Zhuhai, Zigong, Daqing, Hegang, Liaoyuan, Fushun, Benxi, Jinzhou, Tongchuan, Baoji, Xiangfan, and Yichang.

17. In October 1995, the Ministry of Civil Affairs, through the State Council, issued the "Notice to Promote a Rural Old-age Pension System" to manage pension funds better and actively develop a rural old-age pension system. In 1998, the administration of the rural pension system was transferred from the Ministry of Civil Affairs to the Ministry of Labour and Social Security.

References

Acemoglu, D. (2002), "Technical Change, Inequality, and the Labour Market", *Journal of Economic Literature*, Vol. 40, No. 1.

Alesina, A. and D. Rodrik (1994), "Distributive Politics and Economic Growth", *Quarterly Journal of Economics*, May.

Barro, R. and X. Sala-i-Martin (1995), *Economic Growth*, McGraw-Hill, New York.

Brandt, L. and C. Holz (2007), "Spatial Price Differences in China: Estimates and Implications", *Economic Development and Cultural Change*, Vol. 55, No. 1.

Brown, P., A. de Brauw and Y. Du (2009), "The New Cooperative Medical System: Does It Help Farmers with Health Shocks Maintain Living Standards?", *China Labour Economics*, Vol. 5, No. 2.

Cai, F. (ed.) (2009), *The Developments in Labour and Social Security of China in the Past Three Decades*, Economic Management Press, Beijing.

Cai, F. and Y. Du (2006), "Changing Nature of Rural Poverty in China and New Policy Orientation", *Chinese Economy*, Vol. 39, No. 4.

Cai, F., Y. Du and M. Wang (2001), "Household Registration System and Labour Market Protection", *Journal of Economic Research*, No. 12.

Calderón, C., A. Chong and R. Valdés (2005), "Labour Market Regulations and Income Inequality: Evidence for a Panel of Countries", in J.E. Restrepo and A.R. Tokman (eds), *Labour Markets and Institutions*, Santiago, Chile.

Chen, S. and M. Ravallion (2005), "Decentralized Transfers to the Urban Poor: China's *Di Bao* Programme", Working Paper, mimeo, World Bank, Washington, DC.

China Development Research Foundation (CDRF) (2005), *China Human Development Report 2005_Towards Human Development with Equity*, China Translation and Publishing Corporation, Beijing.

Clarke, R. (1995), "More Evidence on Income Distribution and Growth", *Journal of Development Economics*, Vol. 47.

Coady, D., M. Grosh and J. Hoddinott (2004), "Targeting Outcomes Redux", *World Bank Research Observer*, Vol. 19, No. 1.

Démurger, S., M. Fournier and Shi Li (2006), "Urban Income Inequality in China Revisited (1988-2002)", *Economics Letters*, Vol. 93.

Du, Y., F. Cai and M. Wang (2006), "Marketization and/or Informalization? New Trend of China's Employment in Transition", Report for the World Bank, Washington, DC.

Dwayne, B., L. Brandt and J. Giles (2006), "Inequality and Growth in Rural China: Does Higher Inequality Impede Growth?", IZA Discussion Paper, No. 2344, Bonn.

Fallon, P.R. and R. Lucas (1991), "The Impact of Changes in Job Security Regulations in India and Zimbabwe", *World Bank Economic Review*, Vol. 5, No. 3.

Fields, G. (2002), "Accounting for Income Inequality and Its Changes: A New Method, with Application to the Distribution of Earnings in the United States", Discussion Paper at Cornell University, available at *http://digitalcommons.ilr.cornell.edu/articles/265/*.

Gibson, J., J. Huang and S. Rozelle (2001), "Why is Income Inequality so Low in China Compared to Other Countries? The Effect of Household Survey Method", *Economics Letters*, Vol. 71, pp. 329-333.

Goh, C., X. Luo and N. Zhu (2008), "Income Growth, Inequality and Poverty Reduction: A Case Study of Eight Provinces in China", *China Economic Review*, Vol. 20, No. 3.

Gustafsson, B. and Shi Li (2003), "The Ethnic Minority-majority Income Gap in Rural China during Transition", *Economic Development and Cultural Change*, Vol. 51, No. 4.

Heckman, J. and C. Pagés (2000), "The Cost of Job Security Regulation: Evidence from Latin American Labour Markets", Working Paper, No.7773, National Bureau of Economic Research, Cambridge, Mass.

Jenkins, S.P. (1995), "Accounting for Inequality Trends: Decomposition Analysis for the UK, 1971-86", *Economica*, Vol. 62, No. 245.

Jenkins, S.P. (1996), "Recent Trends in the UK Income Distribution: What Happened and Why?", *Oxford Review of Economic Policy*, Vol. 12, No. 1.

Khan, A.R. and C. Riskin (2005), "China's Household Income and Its Distribution, 1995 and 2002", *China Quarterly*, No. 182, Cambridge University Press.

Knight, J. and L. Song (1999), *The Rural-Urban Divide, Economic Disparities and Interactions in China*, Oxford University Press, Oxford, New York.

Koeniger, W., M. Leonardi and L. Nunziata (2004), "Labour Market Institutions and Wage Inequality", IZA Discussion Paper, No. 1291, Bonn, September.

Lin, J., G. Wang and Y. Zhao (2004), "Regional Inequality and Labour Transfers in China", *Economic Development and Cultural Change*, Vol. 52, No. 3.

Meng, X., R. Gregory and Y. Wang (2005), "Poverty, Inequality, and Growth in Urban China, 1986-2000", *Journal of Comparative Economics*, Vol. 33, No. 4.

Ministry of Health, People's Republic of China (1999), "Research on National Health Services: An Analysis Report of the Second National Health Services Survey in 1998", National Center for Health Information and Statistics, Beijing.

National Development and Reform Commission (NDRC) (2007), "Social Affair Developments in the First Half of 2007 and Policy Recommendations for the Second Half", Policy Analysis Report of NDRC, available at *http://finance.sina.com.cn/china/hgjj/20070815/07133883293.shtml*.

National Bureau of Statistics (NBS) (2009), "Employment Situations for Migrant Workers Are Improving", available at *www.stats.gov.cn.*

Park, A. (2008), "Rural-Urban Inequality in China", in S. Yusuf and T. Saich (eds.), *China Urbanizes*, World Bank, Washington, DC.

Park, A. and R. Chan (2007), "Schooling Costs and the Education of Migrant Children in China", unpublished manuscript.

Persson, T. and G. Tabellini (1994), "Is Inequality Harmful for Growth? Theory and Evidence", *American Economic Review*, Vol. 84, No. 3.

Rama, M. (2001), "Globalization, Inequality, and Labour Market Policies", World Bank Discussion Paper, Washington, DC.

Rama, M. (2003), "Globalization and Workers in Developing Countries", in R. Hasan and D. Mitra (eds.), *The Impact of Trade on Labour: Issues, Perspectives and Experience from Developing Asia*, Amsterdam, North-Holland.

Ravallion, M. and S. Chen (1999), "When Economic Reform Is Faster Than Statistical Reform: Measuring and Explaining Income Inequality in Rural China", *Oxford Bulletin of Economics and Statistics*, Vol. 61, No. 1.

Ravallion, M. and S. Chen (2007), "China's (Uneven) Progress Against Poverty", *Journal of Development Economics*, Vol. 82.

Rodrik, D. (1999), "Where Did All the Growth Go? External Shocks, Social Conflict, and Growth Collapses", *Journal of Economic Growth*, No. 4.

Saint-Paul, G. (1994), "Do Labour Market Rigidities Fulfill Distributive Objectives? Searching for the Virtues of the European Model", IMF Staff Papers No. 41.

Sicular, T., X. Yue, B. Gustafsson and Shi Li (2007), "The Urban-Rural Income Gap and Inequality in China", *Review of Income and Wealth*, Vol. 53, No. 1.

Wan, G. and Z. Zhou (2005), "Income Inequality in Rural China: Regression-based Decomposition Using Household Data", *Review of Development Economics*, Vol. 9, No. 1.

Wang, M. (2007), "Emerging Urban Poverty and Effects of the *Dibao* Programme on Alleviating Poverty in China", *China and World Economy*, Vol. 15, No. 1.

Whalley, J. and S. Zhang (2004), "Inequality Change in China and (Hukou) Labour Mobility Restrictions", NBER Working Paper No. 10683, National Bureau of Economic Research, Cambridge, Mass.

World Bank (1994), *Averting the Old-Age Crisis: Policies to Protect the Old and Promote Growth*, Washington, DC.

World Bank (2009), *From Poor Areas to Poor People: China's Evolving Poverty Reduction Agenda, An Assessment of Poverty and Inequality in China*, World Bank, Washington, DC.

Yang, D. and F. Cai (2003), "The Political Economy of China's Rural-Urban Divide", in C.N. Hope, D. Tao Yang and Mu Yang Li (eds.), *How Far Across the River: Chinese Policy Reform at the Millennium*, Stanford University Press, Stanford, California.

Yao,S., Z. Zhang and L. Hanmer (2004), "Growing Inequality and Poverty in China", *China Economic Review*, Vol. 15.

Zhang, J., Y. Zhao, A. Park and X. Song (2005), "Economic Returns to Schooling in Urban China, 1988-2001", *Journal of Comparative Economics*, Vol. 33, pp. 730-752.

Zhang, Y. and G. Wan (2006), "The Impacts of Growth and Inequality on Rural Poverty in China", *Journal of Comparative Economics*, Vol. 34.

Zhang, Q., J. Mi and J. Huang (2007), "Income Mobility and Income Distribution: Evidence from Rural China", *Economic Research Journal*, No. 11.

Annex 3.A1

Studies on inequality in China

	Data	Main findings	Methodology
World Bank (2009)	RHS and UHS (NBS): 2002-2005; Village survey done by the World Bank and NBS; CULS1 and CULS2	Since the reform, inequality has been rising, as evidenced by the Gini index, from 30.9% in 1981 to 45.3% in 2003. The index is smaller after adjustment for cost of living spatially. Rural-urban inequality accounted for 40.2% of overall inequality in 2003.	Measured by Gini and Theil entropy. Decomposing the Theil by rural-urban, inter- and intra provincial inequality.
Goh *et al.* (2008)	CHNS: 1989, 1991, 1993, 1997, 2000, and 2004	From 1989 to 2004, overall inequality in the interior provinces has been growing more rapidly than in the coastal provinces. Income inequality mainly comes from the earning gaps between skilled and unskilled workers. Income inequality among households has been increasing, in particular, between coastal urban and interior urban residents.	Measured by Gini, the effects of income distribution on poverty, and decomposition.
Ravallion and Chen (2007)	RHS and UHS (NBS): 1980-2002	With adjustments for living costs in both rural and urban areas, the study finds that the Gini coefficients for rural areas, urban areas and the country overall was increasing from 1980 to 2001, and the national Gini was higher than the urban and rural ones. The growth in the rural economy is helpful to reducing income inequality between rural and urban areas as well as inequality within rural and urban areas.	Measured by Gini with adjustment of cost of living
Zhang and Huang (2007)	RCRE: the household survey data in 10 provinces from 1987 to 2002, including Anhui, Gansu, Guangdong, Zhengjiang, Henan, Hunan, Jiangsu, Jilin, Shangxi, and Sichuan.	Income inequality has been increasing among rural residents. However, if income mobility is taken into account, the gap between the rich and the poor is not as serious as what inequality per se indicates.	Multinomial logit
Sicular *et al.* (2007)	CHIP: 1995 and 2002.	By including migrants in the urban sample and adjusting for the spatial price difference, the rural and urban income gap is still substantial, and contributed 40% to overall inequality in 2002, although this share dropped to 26% with a spatial price adjustment. The rural-urban income gap is more significant in central and western China than in the coastal areas.	Measured by Theil and its decomposition. Oaxaca-Blinder decomposition
Yin Zhang and Guanghua Wan (2006)	CHNS: 1989, 1991, 1993, 1997, and 2000; RCRE: the household survey data in 8 provinces from 1987 to 1999 (1992 and 1994 not included), including Anhui, Gansu, Guangdong, Henan, Jiangsu, Jilin, Shangxi, and Sichuan.	Rural inequality deteriorated in the late 1990s. The relation between poverty reduction and inequality and the poverty index is insignificant.	Measurement of poverty line, Sharply decomposition.
Démurger *et al.* (2006)	CHIP: 1988, 1995, and 2002	Income inequality in urban China increased between 1988 and 1995, while the trend was the opposite between 1995 and 2002. The estimate on urban inequality is upward-biased when the price is not deflated spatially.	Measured by Theil and General Entropy, MLD index, and decomposition by group.
Wan and Zhou (2005)	RCRE: the rural household survey data in Guangdong, Hubei, and Yunnan from 1995 to 2002.	Rural inequality increased according to various inequality measures. The spatial factor is the most significant contributor to overall inequality, along with the contribution from capital.	Measured by Theil, Gini, Atkinson, CV, and Sharply decomposition.
Dwayne *et al.* (2006)	RCRE: the rural household survey data in 9 provinces.	The Gini coefficient went up from 0.32 in 1987 to 0.37 in 1999, which means that income inequality increased. Controlling for geographical factors, more than half of the inequality is due to inequality between neighbors within a village, and not to income differences between rich and poor villages. The importance of spatial income differences at regional, provincial and village level is declining over time.	Measured by Gini, Lorenze curve. Decomposition by region and income source.
Yao *et al.* , (2004)	UHS in 1998 (NBS), CHIP in 1995, and RCRE 1998	It is increased inequality, rather than income growth, which slows down poverty reduction in China. A 10% growth in the Gini causes a 21% increase in the rate of poverty incidence.	Measured by Gini
Ravallion and Chen (1999)	RHS 1985-1990 (NBS)	The aggregated data indicating a sharp increase in income inequality in the late 1980s would disappear when taking into account food consumption by rural households. When accounting for rural household consumption at average prices, 2/3 of income inequality in south China would be eliminated in the 1985 to 1990 period. The official data underestimated the income from food production.	Regression-based decomposition.

Source: Authors for the OECD.

Chapter 4

Decreasing poverty and increasing inequality in India

by

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India's GDP accelerated in the post-reform period, but it was accompanied by rising inequality. This growth in inequality can be partly traced to the peculiar sectoral composition of India's growth, with the tertiary sector taking the lead in terms of both employment and value added. This rather unique feature of India's growth can in turn be traced to the dualistic nature of India's modern (non-household) manufacturing sector – with the two strong modes of very small-sized firms (fewer than ten workers) and very large firms (500 or more workers). The dual structure of manufacturing is partly caused by the content and implementation of labour laws, but other factors connected with education, infrastructure and industrial policies are equally, if not more, important. The resultant concentration of employment growth in the large informal sector has left policy makers struggling to build adequate systems of social protection and assistance which extend benefits to workers in this sector as well as to the formal sector of the labour market. These programmes have been enacted in various fronts, but have still not been implemented adequately.

Introduction

This chapter analyses the recent growth process in India and the measures taken to ameliorate the living conditions of those left behind in this process. The chapter consists of two parts: Section 4.1 gives an analytical and statistical picture of recent Indian growth, with decreasing poverty but growing inequality, while Section 4.2 reviews the range of policies that have been enacted (or are being discussed) to ameliorate the living conditions of the mass of low earners in the Indian economy.

Section 4.1 begins with a statistical analysis of the results of recent growth based on the five-yearly household surveys of the National Sample Survey Organisation (NSSO). The Indian reform process – in both its internal and external aspects – is generally considered to have started at the beginning of the 1990s. In accordance with this conventional date, the NSS rounds for 1983 and 1993/94 are considered to reflect the trends in the "pre-reform" decade, while the period between 1993/94 and 2004/05 (latest round available) is considered to be the post-reform decade. One important limitation of the NSS data should be noted: the NSS does not collect data on incomes earned by individual earners. It records income of expenditure accruing to the responding households. While data on wage earnings are available, the use of this variable as the measure of income is limited by the fact that less than half of the workforce in India is employed for wages. The self-employed are a major part of the workforce, even in non-agriculture employment. Accordingly, the most useful measure of household welfare is the household's average per capita expenditure (APCE), and its characteristics (industry, occupation, etc.) pertain to the principal activity of the household head.

The major characteristics of the Indian growth process in the post-reform period are analysed as the determinants of inequality, and the peculiar sector allocation of labour in Indian growth has implications for the inequality issue. The conclusion is that the crucial problem in Indian growth lies in the manufacturing sector and its dualistic size structure, with a "missing middle". It is argued that this pattern is responsible for the relatively slow growth of manufacturing relative to the tertiary sector and has contributed to the increase in inequality in non-agricultural sectors. The origins of the dualistic manufacturing sector lie in the post-colonial policy of reservation for small-scale industry. This has unfortunately continued to be of significance even after the original policy was abandoned in the post-reform years.

The growth process in India has led to absorption of labour outside agriculture only to a small extent in the better-paid formal sector of the labour market. The problem of low earnings is acute, with a large part of the non-agricultural labour force being absorbed in the informal sector. Accordingly, a great deal of policy makers' attention is directed to ameliorating the conditions of work in the informal (or unorganised) sector of the labour market. Major initiatives in this area and the difficulties in their implementation are the subject of Section 4.2. The policies being pursued are of two types: first, direct state intervention in the informal labour market, through minimum wage provisions and employment schemes; and second, policies on social assistance and social protection. A list of initiatives in these areas shows the concern of successive Indian governments to respond to the need for improving working conditions for the country's vast population of low earners. But the difficulties with implementation and financing are formidable, and the discussion in this part tries to bring out the more important aspects of the problems observed in setting up successful welfare schemes.

4.1. Growth with inequality: its nature and determinants

This section is structured as follows: the section on "Determinants of inequality" outlines the experience of growth combined with inequality in the post-reform decade in India. It is followed by a statistical analysis of the significant determinants of inequality in the India's economy, based on the NSS household surveys for the various years over the period 1983 to 2004/05. Both the wage sector (which comprises about 40% of the rural workforce and 55% of the urban one), and the wages of all households are considered.

The section on "Industrial composition and inequality" then analyses inequality and its evolution over time by broad sectors of activity. This shows that the contribution of the tertiary sector dominates the experience of growth with inequality in post-reform India. It closes with a disaggregated view of the tertiary sector, and clarifies its role in this process of growth with inequality.

The section on "Dualism in manufacturing and the employment problem in India" sets out an hypothesis about the crucial structural factor in this pattern of growth. There are three critical aspects which seem to be at odds with the comparative experience of other countries with a successful development experience (in Asia and elsewhere): *a)* the growth process seems to have been led by the tertiary sector, rather than manufacturing, both in terms of value added and employment; *b)* the earnings level in the tertiary sector has been significantly higher than in manufacturing, suggesting that growth in the tertiary sector has been productivity-led rather than employment-led; and *c)* the manufacturing sector in India has been characterised by the persistence of "dualism". There has been a strong bi-modal distribution in employment – even when confining attention to the non-household sub-sector in manufacturing – with a strong concentration of employment in the small and large-sized establishments, with a conspicuous "missing middle". A related point is that the productivity (and wage) gap between these two extremes is much larger in India than in other Asian economies. These three phenomena, which are interrelated, have been driven by the third aspect of the growth process mentioned above – the peculiar dualistic structure seen in India's modern manufacturing sector. This has slowed down the growth of the manufacturing sector, favouring the tertiary sector to lead the growth process. The way that this has led to growth with inequality is also explained in this section.

The section on "Causes of dualism in Indian manufacturing" examines the major factors that have contributed to the phenomenon of dualism in manufacturing, with the "missing middle" in the size structure. While the Indian industrial policy of "reservation for the small-scale" contributed to the establishment of this system, there are various factors that have helped to perpetuate it even after the original policy was reformed. Labour legislation has sometimes been placed at the top of the list of the factors cementing this phenomenon, but it is argued that this is not the only or even the primary factor.

Growth and inequality

Indian economic growth has spurted in the post-reform years. This has led to an accelerated decline in the poverty rate, but along with the experience of many other countries in recent decades, the increase in the rate of poverty reduction has been accompanied by growing inequality (Table 4.1).

Table 4.1. **India's economic growth by different sources, 1983-2005**

Average annual growth in constant prices

Period	Per capita GDP	Per capita private consumption (NAS)	Per capita private consumption (NSS)	Per capita private consumption rural (NSS)[a]	Per capita private consumption urban (NSS)
1983-1993/94	3.11	1.84	0.91	0.76	1.23
1993/94-2004/05	1.43	3.30	1.31	1.12	1.74

a) Data from the National Sample Survey (NSS) are converted in real terms using the official deflators of the Planning Commission.

Source: IMF, *World Economic Outlook* and National Sample Survey (1983, 1993/94 and 2004/05 rounds).

It is well known that there is a major discrepancy in the growth rate of consumption given by the National Sample Survey (NSS) and the National Accounts (NAS), with the first reporting a much lower level of consumption. Furthermore, this discrepancy has grown over time. The NSS consumption returns seem to have captured only 62% of the private consumption estimated by the NAS in 1993/94, and the figure fell to 41% in 2004/05 (Topalova, 2008). As a consequence, the growth rate of consumption estimated from the NSS data was only half of what was reported by the NAS in the decade 1983-93, and then shrank to about 40% of the NAS figures in the 1990s.

It is generally accepted that this discrepancy is due to a large extent to under-reporting by the NSS respondents of high expenditures, particularly on durables or other assets. This is of course related to the under-reporting of high incomes, a large chunk of which are undeclared for tax purposes. Banerjee and Piketty (2005) studied the time-series of income tax data over the period 1922-2000 and found a turn-around in the share of the top 1% of the tax payers' income starting in the early 1980s. They attribute this to the impact of globalisation, which they argue has enabled a small minority of the population to reap the benefits of the contacts established with the world economy.[1, 2]

The implication of this finding for the NAS-NSS gap in the growth rate of consumption is this: if in fact very rich tax payers declared all their income to the tax office, but were wary of admitting their high income to the NSS (since there is no legal requirement to respond to NSS questions), then the omission of this share from estimated consumption growth would lead to its underestimation. Using the income share of the top 1% from the tax returns of the late 1980s, Banerjee and Piketty (2005) concluded that such an omission would account for about 40% of the observed gap between the NAS and NSS estimates of the growth rate of consumption between 1983 and 1999/2000.

The increase in measured inequality from the NSS rounds is likely then to be an underestimate. It is useful for defining the lower bounds of the increase. It should also be emphasised that an analysis of the components of inequality and the way they change over time would be more important than the absolute magnitude of any change.

Growth with poverty reduction and an increase in inequality

The story of Indian growth, particularly in the post-reform decade, has been one of increasing inequality accompanied by a significant reduction in the incidence of poverty. This can be seen clearly in the changing pattern of the distribution of per capita average expenditure for all households, as reported by the successive rounds of the NSS. The distribution of per capita average expenditure moved to the right between 1993 and 2004

in both rural and urban areas, signifying an improvement in household APCE in both areas. The modes of the distribution were to the left of the poverty line in the pre-reform years but have shifted to the right of the line in 2004/05.[3] But the modes continue to be prominent (and sizable percentages of households are in their vicinity, although less so in the urban areas), which means that the incidence of poverty as measured for example by the headcount ratio (percentage of population below the poverty line), would be very sensitive to growth (the elasticity of poverty with respect to income growth is high). At the same time, the APCE of better-off households increased more in urban areas, suggesting an increased inequality in the distribution of income in these areas.

Poverty incidence

There is large literature on the poverty line which should be used to trace the incidence of poverty. An implication of the distribution of APCE portrayed in Figure 4.1, with the concentration of significant proportion of the population around the mode is that the trends in poverty incidence would be slightly affected by small changes in the position of the poverty line. The exact definition of the poverty line is not that important. What is more relevant is the limitation of the income-expenditure definition of the poverty line used by the official Planning Commission standard, and which is used here. Non-income dimensions of poverty are important in a wider definition of poverty (*i.e.* the availability of health care and education for poor household). This wider view of household welfare is, however, not used in this chapter.

The actual measures of poverty incidence for the successive rounds of the NSS are given in Table 4.2.[4]

Table 4.2. **Evolution of poverty in India, 1983-2005**

At 1993/94 prices in rural India

	Poverty rate[a]			Poverty depth[b]		
	All India	Rural	Urban	All India	Rural	Urban
1983	45.2	46.2	42.1	12.6	13	11.5
1987/88	39.3	39.3	39.2	9.6	9.4	10.4
1993/94	35.8	36.8	23.8	8.4	8.4	8.3
2004/05	27.5	28.0	25.8	5.7	5.5	6.2

a) The poverty rate is defined as the share of the population below the poverty line.
b) The poverty depth is defined as the poverty rate multiplied by the average value of the shortfall from the poverty line.

Source: National Sample Survey (various rounds) and IMF estimates.

Inequality

Table 4.3 shows inequality in household welfare (as measured by the average per capita expenditure of households – APCE) for 1983, 1993/94 and 2004/05, for urban and rural areas. It is clear that inequality increased significantly in India only in the second decade (the post-reform years). Further, the increase in inequality was much more pronounced in the urban areas. In the previous 1983-93 decade, the NSS data show that there was if anything a small decline in overall inequality – about 2 percentage points in the Gini coefficient in rural areas and 1 percentage point in urban areas.

Table 4.3. **Measures of inequality[a] of average per capita expenditure (APCE) in India**

	GE(-1)	GE(0)	GE(1)	GE(2)	Gini
			Rural		
1983	0.184	0.169	0.195	0.324	0.319
1993	0.153	0.148	0.184	0.454	0.298
2004	0.179	0.172	0.223	0.531	0.320
			Urban		
1983	0.263	0.223	0.249	0.422	0.367
1993	0.235	0.209	0.239	0.417	0.357
2004	0.287	0.250	0.290	0.534	0.389
			Total		
1983	0.207	0.188	0.217	0.370	0.337
1993	0.208	0.197	0.240	0.504	0.347
2004	0.249	0.233	0.292	0.625	0.376

a) GE (α) corresponds to the Generalised Entropy measures of inequality and vary from 0 to 1 with 0 corresponding to complete inequality. As the parameter α increases, the GE measures become less sensitive to inequality at the lower end of the distribution and more sensitive at the upper end. The cases of special interest are α values of 0.1 and 2. When $\alpha = 0$ it corresponds to the mean log deviation, $\alpha = 1$ corresponds to the Theil index of inequality and $\alpha = 2$ corresponds to one half the squared coefficient of variation.

Source: Author calculations from the *National Sample Survey Database.*

For the more recent decade, all measures show that inequality increased more in the urban areas. Although the extent of the increase was stronger in the measures that give greater weight to higher incomes, the GE(0) index even showed a significant increase. It is interesting to note that this increase in inequality across the board was substantial in the rural areas as well – although it was larger in urban areas.

Sarkar (2009), following Topolova (2008), looked at the changes in the percentile distribution of APCE in detail, both in the rural and the urban areas. Figures 4.1 and 4.2 present the annual growth of average per capita expenditure (APCE) by percentile for the pre- and post-reform periods in rural and urban areas separately.

The conclusion from these figures is striking and is consistent with the points made above. In the first period the growth pattern in rural areas was decidedly pro-poor, with a faster rate of growth for those at the lower end of the distribution. In the urban areas the growth was intriguingly distribution-neutral. There was a marked change in the post-reform decade. The richer groups in both rural and urban areas were favoured, but the urban areas had a much stronger bias towards pro-rich growth and embraced a larger proportion of the richer consumption slabs.

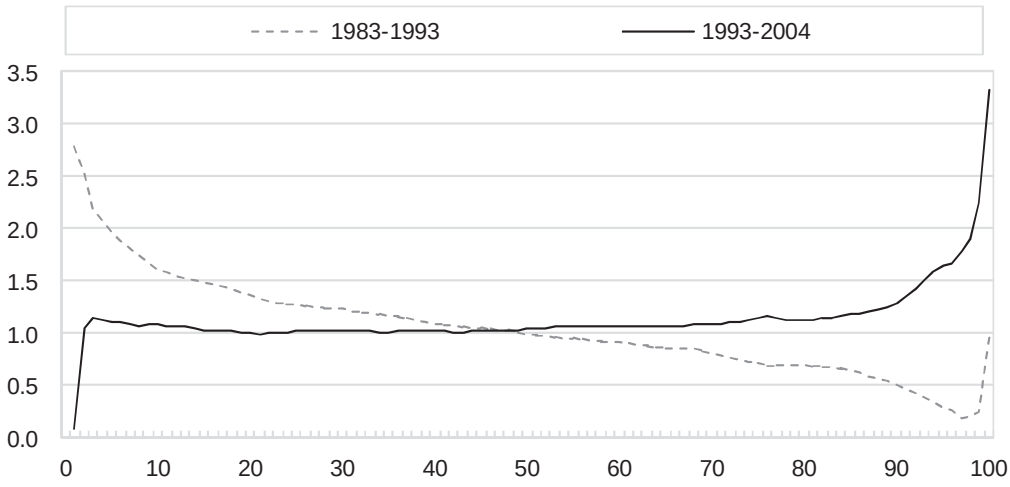
While consumption per capita grew faster in the urban sector (the median growth rate of consumption is, as shown, considerably higher than in the rural sector), the richest households grew the fastest (above the 80th percentile). Rural households had a similar upturn in their "growth incidence curve" but this seems to have occurred only for households above the 90th percentile.

The positive rate of growth of APCE in both rural and urban areas in both the pre- and post-reform periods implies that the poverty rate fell in both periods and both sectors. The reduction in poverty tracked the growth rates of median APCE. The data presented in

Table 4.3 shows that although inequality increased faster in the urban sector, and more so in the post-reform decade, the difference with respect to the rural areas did not significantly alter the fact that the urban areas reduced the poverty incidence at a somewhat faster rate.

Figure 4.1. **Annual growth of average per capita expenditure (APCE) by percentile in rural areas in India**

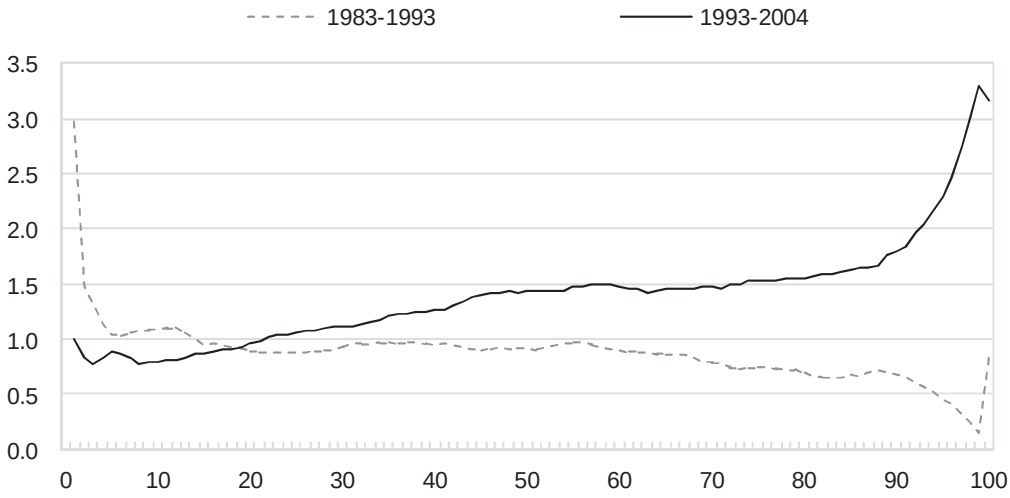
In percentage



Source: Sarkar (2009).

Figure 4.2. **Annual growth of average per capita expenditure (APCE) by percentile in urban areas in India**

In percentage



Source: Sarkar (2009).

Determinants of inequality

Wage inequality

Wage labour represents less than half of the employed workforce in India, the majority being self-employed. Wage labour is somewhat more important in the urban sector. Further, there are two different categories of wage earners: the regular workers who get contractual employment over a period of time, and the casuals who are employed on a day-to-day basis. While casual labour is the most important category of employment in the rural sector, it also figures significantly in the urban economy. A major trend in the post-reform decade has been an increase in the regular wage employment of females in jobs in the urban areas, which has come mostly at the expense of casual wage work.

Table 4.4 presents measures of wage inequality among regular and casual workers over time. The degree of inequality is much higher among regular wage earners, and has been increasing dramatically in the post-reform decade, while there has been little change among casual workers.

Table 4.4. **Gini coefficient for regular and casual daily earnings in India, 1983-2004**

	1983	1993	2004	1983	1993	2004
	Regular workers			Casual workers		
Rural	0.451	0.409	0.485	0.318	0.276	0.274
Urban	0.374	0.384	0.477	0.353	0.308	0.298
Total	0.419	0.400	0.484	0.329	0.288	0.282

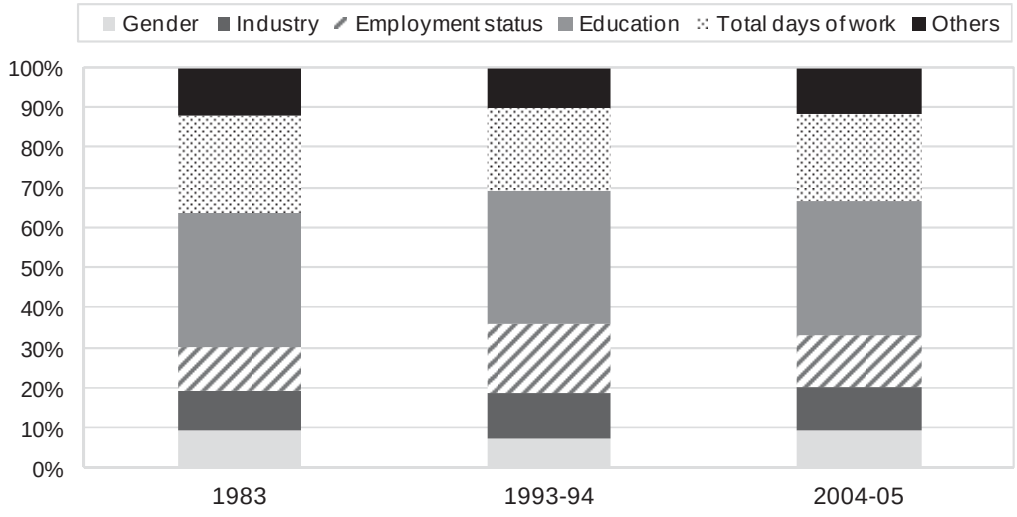
Source: Author's calculations from the *National Sample Survey Database.*

Vasudeva-Dutta (2005) analysed the determinants of inequality for wage earners only from the NSS rounds for 1983 and 1999/2000, focusing on the sample of male wage earners in the working-age group (15-65). They followed the standard Fields (2002) method of assessing the contribution of different explanatory variables for accounting for inequality among two samples – regular and casual workers.[5] The results from this work make clear the difference between the markets for regular and casual wage earners. Human capital variables, education and age in particular, play a stronger role in the determination of the earnings of regular workers (age accounted for about a quarter of the explained variance in 1999 and education for a third). The other important factor was industry affiliation (contributing another quarter). By contrast, human capital factors were of much less importance for casual workers (only age had any positive contribution, but only around 7%). The single most important explanatory variable was geographical difference (the state of residence contributed no less than 62% for casual workers as against only 3.5% for regular workers). In any event, the earnings function was much more effective in accounting for earnings differences among regular workers, explaining just over half the variance in their earnings (whereas it explained a third of the variance for casual workers).

Although the wage gap between regular workers with graduate and primary school qualifications increased between 1983 and 1999 in Vasudeva-Dutta (2005), the share of education in the explanation of the variance declined from 23% to 17%. The importance of age increased, as did that of industry affiliation. The study confirms that the increase in the "contribution of selection coupled with the fall in that of education suggest a rising

importance of unobservable variables for regular workers, possibly linked to the process of trade liberalisation". Sarkar (2009) undertook a similar decomposition analysis of factors that contribute to the earnings disparity of all wage earners (regular and casual workers taken together) for the NSS round of 2004/05.[6] Figure 4.3 shows the relative importance of the significant factors contributing to wage inequality. The regression equation for weekly wage earnings explained about 60% of the variance in 2004/05.

Figure 4.3. **Contribution of significant variables to wage inequality in India**



Source: Sarkar (2009).

The two factors that contributed most to differences in earnings were educational level and intensity of work (total days of work). Casual workers are paid only for the days they actually work, and thus the earnings of the casual workers and directly affected by the number of days of work. This factor turned out to be the second most important factor in earnings inequality. The level of education emerged as the single most important factor.

Employment status (regular or casual) was the third most important factor. Even after controlling for days of work, the daily wage differential between regular and casual was substantial. Interestingly, the relative importance of these factors in explaining part of the contribution to earnings inequality did not change over the last two decades. The contributions of inter-industry disparities and gender differences in earnings inequality were almost of equal importance. The education factor is the combined effect of all years of schooling. When Sarkar (2009) differentiated the education variable by levels of schooling, it was observed that the contribution to inequality among workers with an education level of "graduate and above" had gone up from 52% in 1983 to 72% in 1993/94, and to 82% in 2004/05. This showed that even after controlling for several factors, including location, sex, status of work, industry and age, the relative earnings of workers with a graduate and above level had registered a huge increase in the last two decades of growth. It was also observed that the relative education premium of workers with only a secondary education declined substantially in the pre-reform period (1983 to 1993/94).

Inequality in household welfare

This section follows the above analysis for the whole population, rather than just the male wage-earners in the working-age group in the Vasudeva-Dutta study. Since income measures are not available for the NSS, the dependant variable used was an index of household welfare, measured by the household's average per capita expenditure (APCE). One problem with this measure is that it would be affected in a problematic way by household. A large household would show *ceteris paribus* a low APCE, but this effect is exaggerated because a large household size is associated with a large number of dependent children. The impact of the number of children is exaggerated by the per capita measure of expenditure. A simple way of dealing with this problem is to allow for the influence of varying earner-dependant ratios in the household or the proportions of working-age members in the household. Unfortunately, the NSS records do not provide complete coverage of the ages of household members.

One option was to use household size as an explanatory variable in the model. Further, in the absence of detailed information on the main earner, all the characteristics used as explanatory variables referred to the head of the household. The dependant variable in this model was the log of APCE, and the explanatory variables included: age and age squared; household size and size squared; social categories or castes; religion; regions of the country; education; major industry groups; and labour market status (self-employed, wage labour, etc.). Only age and household size were used as continuous variables, the rest were used as dummy variables. The model explained 36% of the variation in APCE in rural areas and as much as 43% in urban areas. The "factor inequality weights" calculated from the model are given below in Table 4.5.

It appears that household size and education of the main earner account for the major part of the explained variation in the model. Evidently these two variables are picking up some of the explanatory powers of other significant variables in the regression. The results of the regression without the control variable of household size and its squared term are presented in Panel B. Omitting the household size variable only decreases the variance explained by the regression – the value of the residual is increased. It is gratifying to see that the relative importance of the various factors contributing to the inequality of APCE is unchanged. There are, however, some important differences in the factor inequality weights (the share of the variance explained by the explanatory variables) in the results reported above for the two different samples – the one confined to wage earners, and the other embracing all households. It is, of course, expected that labour force status (self-employed, wage labour, etc.) would play a more significant part in explaining the variance than in the equation confined to wage earners. But some of the other explanatory factors that are of significance in the household welfare equation (APCE) need special attention. Both social category and region play a more significant role in the explanation of APCE – although much smaller than education – than in the wage equation.

Another notable difference between the APCE and wage models is that while industry, apart from education, plays a major role in explaining the variance in the wage equation, this is not so in the APCE equation. This is partly because the correlation between industry and the other significant variables is stronger for the sample of all "household heads" than for the regular wage earners. In agriculture, for example, the lower social classes are likely to have a relatively more substantial presence than are regular wage earners. Likewise, regional differences are more significantly correlated with industry for all households than for regular wage workers.

Table 4.5. **Factor inequality weights for APCE by rural and urban areas in India, 2004/05**

Panel A. Model Including "household size" variable

Factor	Share of total variance explained	
	Rural	Urban
Head age	0.007	0.010
Household size	0.084	0.119
Social category	0.032	0.040
Religion	0.012	0.012
Region	0.040	0.030
Education head	0.117	0.182
Industry	0.015	0.006
Status	0.055	0.036
Residual	0.639	0.565

Panel B. Model without "household size" variable

Factor	Share of total variance explained	
	Rural	Urban
Head age	0.004	0.002
Social category	0.035	0.048
Religion	0.013	0.013
Region	0.043	0.033
Education head	0.116	0.186
Industry	0.017	0.009
Status	0.054	0.040
Residual	0.719	0.670

Source: Author's calculations from the National Sample Survey data for 2004/05.

Industrial composition and inequality

The importance of the tertiary sector in Indian growth

A peculiar feature of Indian development is that it has been led by the tertiary sector, rather than by manufacturing – both in terms of employment and value added. Historically speaking, structural change in employment in India has been very slow. But it seems to have accelerated a bit in the post-reform decade. In the post-reform decade of 1993/94 to 2004/05, agriculture's share of employment declined by 6.5 percentage points – nearly double the decline in the previous decade. Barely 1.1 points of this decline was absorbed by manufacturing. The tertiary sector, along with construction, accounted for the bulk of the relative change in the employment structure. Following Topalova (2008), the sectoral composition of growth is shown in Table 4.6.

Table 4.6. **India's sectoral composition of growth, 1983-2005**

	Average growth rate (in %)		Share of GDP (in %)		
	1983/84-1992/93	1993/94-2004/05	1983/84	1993/94	2004/05
Real GDP	5.22	6.23	100	100	100
Agriculture	3.56	2.71	37	30	20
Industry	5.60	6.59	24	25	26
Services	4.62	7.97	39	45	54

Source: Topalova (2008); RBI; National Account Statistics and IMF estimates.

The growth of the tertiary sector in India seems to be somewhat out of line with international experience in recent decades. The newly industrialising countries of Asia – Korea and Taiwan – saw their share of employment in manufacturing increase much

faster than that of the tertiary sector during their initial period of growth in the 1970s. In fact, during Taiwan's vigorous development in the 1970s, manufacturing's share of employment increased three times more than that of the tertiary sector. Only in the 1990s, after Taiwan and Korea had developed into mature industrialised economies, did their tertiary sector become the dominant provider of employment outside agriculture. By contrast, India's share of employment growth in the tertiary sector in the 1970s was already 60% higher than in manufacturing. Since then, the decades of the 1980s and 1990s have seen the share of employment in manufacturing virtually stagnate, with the tertiary sector absorbing almost all the employment share lost by agriculture. In recent decades, other Asian developing countries – Thailand, Malaysia and Indonesia – had large shares of employment created in the tertiary sector, but in contrast with India, the share in manufacturing has not stagnated in any of them in any decade. On the contrary, something between one-third and one-half of the often large decline in the share of employment in agriculture was taken up by manufacturing. The only country in the sample with an experience close to that of India is the Philippines.

Inequality in the tertiary sector

The Kernel Density Functions based on the APCE from the NSS for the three rounds, by sector of activity (not reproduced here), show a movement to the right, signifying an increase in household welfare for all expenditure groups, particularly at the bottom of the expenditure distribution. The increase in the APCE of the middle and higher expenditure groups is relatively more pronounced for the tertiary sector. This is particularly true of the latest post-reform decade. It suggests an increase in inequality in the tertiary sector relative to other sectors.

It is also interesting to note the contribution of each type of household (distinguished by the principal industry of activity of the head) to overall inequality of all household welfare. To calculate this, it is not enough to get the weighted average of the inequality measures of the APCE in the three types of households. It is necessary to rank the household for any activity not in terms of the household welfare (APCE) in that particular activity, but in terms of the household welfare of the total for all activities. This can be done by the computation of "pseudo-Ginis" for each of household type (see Annex 4.A2 for details).

The result is that in all the years of the NSS studied, the tertiary sector contributed the most to overall inequality in the economy. In addition, the contribution of this sector relative to manufacturing (whose contribution to inequality was large and came second in importance) increased dramatically in the post-reform decade.

Finally, as shown by Topalova (2008), who used the state-level experience of varying growth patterns to study the proximate causes of the "inclusiveness of growth", the degree of inclusiveness of growth depends on the evenness of the growth rate of consumption over the period across household income classes. This degree of inclusiveness is defined by the difference between the consumption growth rates of two different population groups (*i.e.* the poorest 30% and the richest 30% of the population). The higher the value of this ratio, the more pro-poor would be the growth rate.

Topalova (2008) used variations across India's States and over time to examine whether the inclusiveness of growth depended in any way on the relative growth rates of different sectors. The growth rates of GDP per capita and of the three broad sectors, as well as the "inclusiveness of growth" as defined above, were computed for India's 15 large states for four time periods (1983-1987/88, 1987/88-1993/94, 1993/94-2004/05).

The variable "inclusiveness of growth" was then regressed on the various per capita growth rates, and state and time period fixed-effects were used to control respectively for time – invariant heterogeneity among states and for economy-wide change. The results are twofold: firstly, there is no evidence that the speed of growth has been responsible for any of the different measures of "inclusive growth". The coefficient for this variable is close to zero in all of the specifications. Secondly, real per capita service sector growth is strongly significant, which implies a negative impact on pro-poor growth. This result is consistent with the evidence presented above from cross-section exercises, *i.e.* that the trend in inequality observed in the Indian economy in recent decades is due to the contribution of the unusually fast growth of the tertiary sector.

Why is inequality higher in the tertiary sector

Having established that the relatively faster growth of the tertiary sector is a major factor behind the growing inequality in India's recent growth, it is interesting to see what in its nature has led to this increased inequality. Two popular hypotheses arise. First, the tertiary sector contains two diverse types of activities: business and financial services, geared to the growth of the modern sector of the economy and producing high incomes, and a more traditional low-income sub-sector, geared to the subsistence sector. Second, although the growth rate has accelerated in India, it is not high enough to absorb the volume of low-income labour in the agricultural or rural sector pressing to find employment outside that sector. In the absence of job growth in manufacturing, these workers enter the tertiary sector, with its relatively "free entry" for job seekers, pulling down the earnings per worker in the low income sub-sectors and leading to a more unequal distribution of income in the sector as a whole. The empirical material is now examined to throw light on these two hypotheses, and shows that both are relevant.

Is the growth of business services responsible for higher inequality?

The tertiary sector is indeed a diverse set of activities that spans the spectrum of income distribution. *Financial, insurance, real estate and business services,* which might be expected to constitute the "high end" of the tertiary sector, employed only a small proportion of the workers in this sector (Table 4.7). Of the nearly 6% increase in employment in the tertiary sector over the two decades, most of the increase (4.3%) was contributed by *Trade, hotels and restaurants*, followed by *Transport, storage and communications* (1.5%). The contribution of the increase in the share of financial, real estate and business services was just over 1%. Interestingly, the share of *Community, social and personal services* actually went down by about 1%, mainly because of the contraction of the public sector. Thus the hypothesis by Topalova (2008), that the correlation between inequality and service sector growth is driven by the expansion of business services, has to be modified. The sources of the increase in inequality were more widespread, and were due to the expansion of high-income jobs in consumer services and transport as well (Mazumdar and Sarkar, 2008).

Table 4.7. **India's employment distribution across sectors, 1983-2005**

Usual Principal Status (UPS) definition

Sector of activity	Share of employed (in %)				
	1983-84	1987-88	1993-94	1999-00	2004-05
Agriculture	64.9	62.5	61.1	58.5	54.6
Mining and quarrying	0.7	0.8	0.8	0.6	0.7
Manufacturing	11.3	11.5	11.0	11.0	12.1
Electricity, gas and water supply	0.4	0.4	0.5	0.3	0.3
Construction	2.7	4.2	3.7	4.9	6.4
Trade, hotels and restaurants	6.9	7.6	8.0	9.3	11.2
Transport, storage and communication	3.0	3.0	3.3	4.1	4.5
Financial, insurance, real estate and business services	0.7	0.7	1.1	1.3	1.8
Community, social and personal services	9.4	9.3	10.5	10.0	8.5
Tertiary sector	20.0	20.6	23.0	24.7	25.9
Secondary	14.4	16.1	15.1	16.2	18.8
Primary	65.6	63.3	61.9	59.1	55.3

Source: *National Sample Survey Database*.

Push or pull?

Is labour entering the tertiary sector because of lack of jobs in other production sectors? If so, the mean level of earnings in this sector could be expected to be significantly lower than in the other sectors. Figure 4.4 gives the relative productivity of different sectors (relative to agriculture set equal to 100). Labour productivities for different sectors are obtained by dividing sectoral GDP by the number of workers (UPS measure) in each sector. Relative labour productivity is the ratio of sectoral labour productivities.

Figure 4.4. **India's relative productivity by economic sector, 1983-2005**

Agriculture = 100



Source: Author's calculations from the *National Sample Survey Database*.

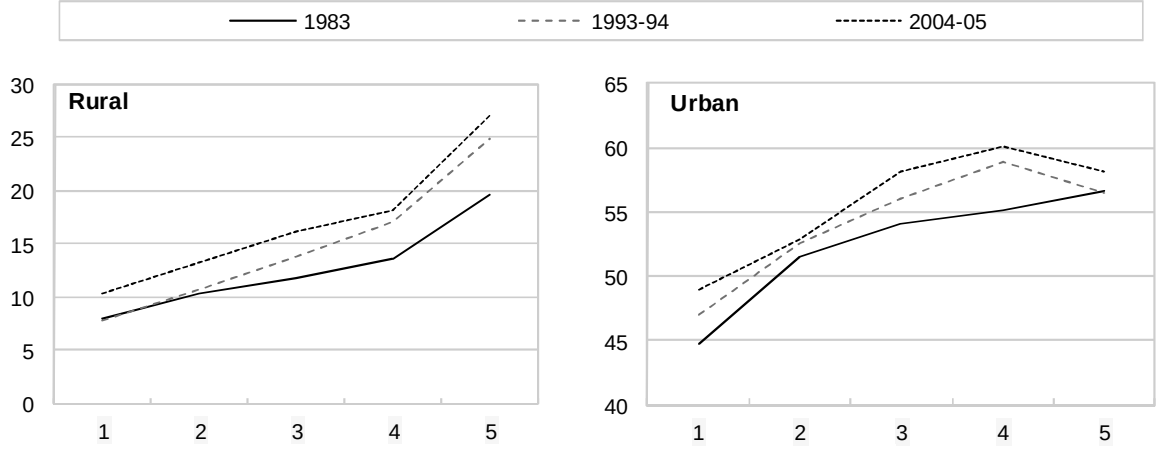
The mean productivity of labour has been higher in the tertiary sector relative to manufacturing and might have increased somewhat over the post-reform decade. Even manufacturing does not perform better than the least productive sub-sector of tertiary activities (trade, etc.), which is supposed to be a relatively free entry sector, allowing labour displaced from agriculture to push down earnings. Construction is another sector that has registered a large increase in employment in the post-reform decade. If construction is included in the secondary sector along with manufacturing, the relative productivity of the tertiary sector would be even higher, and increasing over time.

The higher mean labour productivity in the tertiary sector is a second peculiar feature of Indian development, along with the larger proportion of employment growth in this sector. Papola (2005) compared the experience of changing shares of GDP and employment over the period 1960-2002 in five Asian countries – China, Indonesia, Thailand, Malaysia and India and made the striking point that only in India has the relative productivity in services increased over this long period. A second important point is that productivity in services exceeds that in industry only in India, and by a substantial percentage. Service sector growth in India has been productivity-led and not employment-led, contradicting the views of some economists that employment grew in services because this sector has been a repository of low-income labour "pushed out" from agriculture.

A comparison of labour productivity or earnings at the mean is not sufficient. It is possible to have a situation where mean earnings in a sector are higher while at the same time earnings in the bottom range of the distribution are significantly lower. What is needed is a comparison of the distribution of earnings across sectors. The proportion of main earners in the tertiary sector in different quintiles of the distribution of household expenditure per capita for successive years is shown in Figure 4.5.

Figure 4.5. **Employment share of tertiary sector by quintile of households' APCE in India**

In percentage



Source: Author's calculations from the *National Sample Survey Database.*

In rural areas there are distinct changes: whereas in the pre-reform period (1983-93) the slopes of the curves increased, signifying a much faster increase in the upper quintile groups, during the post-reform period (1993-2004), there was a parallel movement upwards, except for the 4th quintile. It would appear that in the post-reform decade more jobs were being created in the lower quintile as well as the highest quintile than in the decade before 1993. In urban areas, the post-reform decade saw a relative increase in the lowest quintile, as in the previous decade, accompanied by a smaller increase in the middle quintiles than in the previous decade. At the same time the highest quintile registered a larger expansion of tertiary sector households.

There is no evidence that "push" factors have dominated labour absorption in the tertiary sector, even if it has created more jobs in the lowest and highest quintiles in the post-reform period. Even trade, hotel and restaurants, the sector that has absorbed a large proportion of the incremental addition to labour market during the last three decades, does not show declining labour productivity, nor even a clear trend of declining relative productivity with respect to agriculture.

The next step in the analysis is to compare the earnings in the tertiary sector relative to those in manufacturing at different parts of the earnings distribution. The technique of quantile regressions is used to do this, as it makes possible a comparison of the earnings differential by sector, after controlling for human capital factors, not at the mean as in the standard least squares regression, but at selected points of the distribution.

Quantile regressions for the 1999/2000 round of NSS unit level data are run to estimate the net differential at five quintiles of the distribution. Dummies for manufacturing and the tertiary sector (with "primary" as the base) were used in the regressions, along with a set of other explanatory variables, including education, age, sex, and urban-rural location. The regressions were undertaken for the APCE of households, and the characteristics used as explanatory variables pertain to those of the heads of the sample households. The coefficients of the sector dummies (with "primary" as the base) of the regression equations give the "net" differential in earnings with respect to the primary sector at the five quintiles of the distributions (Table 4.8).

Table 4.8. **Coefficients of dummies of quantile regressions for log APCE in India, 1999/2000**

	APCE				
	Q1	Q2	Q3	Q4	Q5
Tertiary	0.057	0.041	0.047	0.049	0.080
Secondary	-0.021	-0.024	-0.026	-0.015	-0.015

Source: Author's calculations from the *National Sample Survey Database* (1999/2000 Round).

The results suggest that income levels for tertiary sector households are above those of the earnings in both the primary and secondary sectors for all quintile groups, even after controlling for the higher levels of education of workers in the tertiary sector. There is no evidence whatsoever of labour being "pulled" into the sector, as the hypothesis of "immiserisation" due to population pressure would suggest. On the other hand, there is some evidence for "dualism" being higher in the tertiary sector, contributing to the higher inequality in the Indian economy.

To conclude, the two popular hypotheses about the higher mean earnings along with a higher level of inequality in the tertiary sector – the emerging importance of business

services and "surplus labour" finding easy entry into this relatively free entry sector – do not seem valid. In fact, the peculiar structure of India's manufacturing sector has to be looked at for an explanation of the relatively high earnings in the tertiary sector together, with the excessive growth (by international standards) of the tertiary sector. This is the topic of the next section.

"Dualism" in manufacturing and the employment problem in India

The manufacturing sector in India has been characterised by the persistence of "dualism". There has been a strong bi-modal distribution in employment – even when confining attention to the non-household sub-sector in manufacturing – with a strong concentration of employment among the small and large-size establishments, with a conspicuous "missing middle". A related point is that the productivity (and wage) gap between the two extreme size groups is much larger in India than in the other Asian economies.

This Indian growth process has contributed to the emerging problems of inequality in India. Dualism in manufacturing leads to low productivity overall, which contributes to a situation in the sector of slower growth and increased earnings inequality. The higher rate of growth in the tertiary sector – both in terms of employment and value added – can be traced to this phenomenon. Finally, the increasing share of the tertiary sector in the growth process contributes to overall inequality in the economy, due to the higher degree of inequality in this sector.

The "dualistic pattern" in Indian manufacturing

The "dualistic pattern" is characterised by: first, two sharp modes – the strong presence of both small establishments and large firms, and second, the substantial economic gap between small and large firms. This is rooted in the initial surplus-labour conditions prevailing in Asian economies during their initial industrialisation (which contributes to labour market segmentation) and the simultaneous development of a complex that ties together large industry, the state and financial conglomerates, which accentuates capital market dualism. If in subsequent periods the pattern of development of modern industry, as shaped by government economic policy, does not then encourage or even actively discourages the upward mobility of small to medium-sized firms, this dualistic pattern with its "missing middle" is perpetuated. It should be emphasised that this phenomenon does not refer to the dualism between household (craft type) production on the one hand, and modern industrial units on the other. Rather, it refers to the size distribution of firms within the modern non-household manufacturing sector (Annex 4.A3).

India is the classic case of the development and perpetuation of this type of dualism. The distribution of India's firms is characterised by a conspicuously small proportion of employment in the middle-size groups (more than nine and less than 500 employees). This type of distribution contrasts with other Asian countries and confirms the different pattern followed in India.

Two important points should be mentioned about this "dualistic" pattern, with its "missing middle", identified in the case of a country like India. First, the relatively low share of employment in the middle-size groups (straddling the two strong modes at either end) is relative rather than absolute. Second, and perhaps more importantly, the

productivity (and hence the wage) differential between the large and small-size groups is higher in the Indian dualistic case. In the East Asian economies – Japan, Taiwan and Korea – the ratio of productivity in the largest size group (500+) to that of the smallest (5-9) was on the order of three to one, and it was even lower at around two to one in Hong Kong and Malaysia. In India the ratio was a massive eight to one (Mazumdar and Sarkar, 2008).

The impact of the "missing middle" on growth

The dualistic employment structure in Indian manufacturing with its "missing middle" has a marked negative effect on the growth rate of the economy's industrial sector due to:

- The impact on skill formation in the labour market: an adequate supply of skilled labour attuned to industrial work is partly a function of the development of the educational sector (including primary and lower secondary education), but is also dependant on widespread on-the-job training. Dispersed industrialisation is important for such a pool of trained labour over a wide area. Many developing countries suffer from a concentration of skilled labour in specific metropolitan areas. Researchers have identified this phenomenon as an important element in the limited dispersal of industrial employment. The concentration of industry and of skilled labour feed on each other, creating high infrastructural and other social costs and adding significantly to the unequal distribution of capital and income.

- The effect on the growth of markets for manufactured goods: unlike in the classical model of development (*e.g.* the Lewis model) labour is not available at a uniform supply-price to the whole of the "non-subsistence" sector. In particular there is a hierarchy of wages that is closely related to the size of firms, and it should be emphasised that these differentials are net of measurable worker quality, like education and experience.

- Given this heterogeneity of wage and productivity levels in the non-subsistence sector, the future growth of labour demand and the segment of the labour market in which jobs are being created are matters of critical importance. The growth of employment in the non-subsistence sector depends both on supply factors (the cost of labour) and on an increase in the demand for the goods the sector helps to produce. If in the first round most jobs are created in the low-wage small-scale segment of the market, the cost of labour would be low, but the expansion of demand for industrial goods would also be low since the increase in per capita income is small. With more jobs being created in the middle-sized segment, income per capita could be expected to increase faster and hence also the markets for non-agricultural goods. A higher wage per worker does not lead to a proportionate increase in the cost of labour, because the added increment in the higher wage reflects higher efficiency. Finally, when we come to the large-scale segment of the market, many firms in this segment are geared to high productivity technology. This means a high-wage low employment approach to labour deployment – partly because of the threat of union pressure and partly because of the desire of management to deal with a limited body of labour. Thus, compared to middle-sized firms, even though wage per worker is higher, employment and the wage bill per unit of output could be significantly lower. In extreme cases, the employment elasticity of output in this large-scale sector could be very low (as

has been the case in India). The contribution of this sector to the growth of domestic markets for industrial goods (particularly for the mass of low-income consumers) would thus be limited.

Dualism, with its associated phenomenon of the missing middle, strengthens and perpetuates product market segmentation. The market for industrial products is split into low-quality products catering to the need of low-income consumers, and supplied by small-scale local producers on the one hand, and the higher-quality segments which the large establishments supply to a limited number of high-income consumers. The lack of market integration could be a bottleneck in the development of mass markets for manufactured consumer goods.

Inequality and the "missing middle" in manufacturing

The contribution of the phenomenon of the missing middle in manufacturing contributes to the process of growing inequality in India in several ways:

- The dualism in the sector, with its bi-polar distribution of employment, itself contributes to inequality. A more even size-distribution of employment, as in the East Asian economies, would contribute to greater equality of income, and wage earnings, in this sector.
- Dualism slows down the rate of growth and absorption of labour in manufacturing. Historically, manufacturing has taken the leading role in the growth of employment and the absorption of surplus labour from agriculture. The Indian experience has meant that the rate of reduction of the proportion of low-income labour in the traditional sectors of the Indian economy, suffers from under-employment, has been slower than it might have been. This has contributed to the bi-polar distribution in the economy as a whole and increased inequality in the growth process. Admittedly, the growth of employment in small-scale manufacturing in India has been disproportionately high, and has contributed significantly to poverty reduction. But the slow absorption of labour in the middle rung of the income distribution has increased inequality.
- The slow growth of output and employment in the formal (non-household) manufacturing sector has meant that the lead in employment restructuring has, as we have seen, been taken by the tertiary sector. Higher inequality in the tertiary sector is a near universal experience, partly because it has a sizable labour force with higher than average education. The recent reversal of the trend in inequality in East Asian growth has been ascribed to the change in the evolution of the employment structure – with the tertiary sector changing role with manufacturing as the leading growth sector (*i.e.* Taiwan). In the Indian case, the contribution of the tertiary sector to overall inequality has grown because of the low supply price of labour to the low-income services sector – a phenomenon due in turn to the slow reallocation of underemployed labour from agriculture, and the dominance of the low-income sub-sector of manufacturing. The low supply price of labour in the poorer segment of the service sector keeps up the demand for these services among middle-income households and contributes to the bi-polar distribution of income, as is the case of the tertiary sector in India. The net result is a higher degree of inequality than would be seen with a more even distribution of employment.

Causes of dualism in Indian manufacturing

As has been argued, dualism in Indian manufacturing, with its associated phenomenon of the missing middle in the non-household size distribution, seems to have been a driving factor in the upward trend in inequality in the growth process. But what factors have caused that dualism in its two features – the phenomenon of the "missing middle" and the unusual productivity gap between the small and large units? And what are the reasons for its persistence over time?

The policy of protecting small-scale units

The protection of small-scale units has been an important aspect of Indian industrial policy since independence. This has taken the form of the "reservation" of a large number of items for production exclusively in small units and the provision of incentives – fiscal, financial and legislative – so long as the units stay below a certain size. The threshold size was first defined in terms of the traditional employment size of five workers. In later years this changed to a definition based on capital size, and this has also increased somewhat over the years. This package of measures on the one hand provided an umbrella for the establishment of an extensive small-scale sector (and in particular the flourishing of non-household units employing less than ten or 20 workers, largely using less mechanised technology, and on the other, discouraged such units to expand beyond a threshold size. The policies provided an incentive over a long period of time for entrepreneurs to expand horizontally with more small units, rather vertically with larger middle-sized units (*i.e.* Little *et al.*, 1987; Mazumdar, 1991).

The reservation policy was effectively dismantled in the reform process initiated in the late 1980s, and more importantly after the liberalisation of 1991. So what explains the continued dual-size structure in Indian manufacturing documented above?

Labour laws in the formal sector

Traditionally, labour legislation has been at the top of the list of the proximate causes of this phenomenon, which persists because the reforms have not touched this body of regulations in a determined way. The present legal framework consists of major acts, and a number of minor state-level laws (Table 4.9). Most of these laws come under the umbrella of the "Factory Act" and apply to all units and cover all workers in the "registered" sector employing ten or more workers using power, or 20 or more not using power. Additionally, the Industrial Employment Act (IDA) with its job security legislation section kicks in for units employing 100 or more workers. Both types of legislation would impose costs on units that expand beyond the threshold sizes.

Laws affecting wages and benefits

The basic wage scales in the formal sector have typically been set by industry-wide wage boards which provide a tripartite framework for the setting of occupation-specific wage scales in major industries. Actual earnings include supplementary benefits, some of which are negotiated by employers and labour unions, while others are legislated by a number of Acts that are revised from time to time. These include the Workmen's Compensation Act, dating back to 1923, the Employees State Insurance Act, first enunciated in 1948 and the Employees Provident Fund Act, which has been on the books since 1952. The Labour courts backing up this legislative framework for wage-setting have been reasonably strong, and pro-labour. The net result has been that average earnings (including benefits) in the formal sector have been substantially higher than those in the informal sector.

Table 4.9. **Main Indian acts by area of labour regulation**

Area of legislation	Titles and dates of legislation	Main provisions
Working conditions	The Factories Act, 1948	Governs the health, safety, and welfare of workers in factories. The Act extends to the whole of India, and includes service sector units employing intellectual labour. Separate Acts cover mines and railways workers. In 1987, a major amendment incorporated elements of occupational health and safety in the Act.
	The Industrial Employment (Standing Orders) Act (IDA) 1946	Specifies the form of the employment contract.
	The Contract Labour (Regulation and Abolition) Act, 1970	Seeks to control the use of non-regular workers.
Wages	The Payment of Wages Act, 1937	A central law applying to workers earning below a certain amount in the formal sector.
	The Minimum Wages Act 1948	Enacted for specified occupations/industries (mostly in the informal sector.
Social Security and Insurance	The Workmen's Compensation Act, 1923	Specifies compensation that the employers need to pay on account of injury by accident at work-site or occupational diseases.
	The Employees State Insurance Act, 1948	Requires contributions from both employers and employees to be paid for insurance against sickness, maternity, funeral, and disablement.
	The Employees State Insurance Act, 1948	Applies primarily to factories and specifies deposit-linked provident fund or pension scheme.

Source: Author for the OECD.

Not all of the wage differential can be traced to an institutional impact. For instance, workers in the formal manufacturing sector obviously have higher skills and human capital. In fact, it has been established that the wage differential in favour of modern large-scale factories had been established well before institutional or state intervention in Indian labour markets (*e.g.* Mazumdar, 1973). Thus, the difference in efficiency wages between the informal and formal sectors would be much smaller than the observed gross differential. Further, the chicken-and-egg problem vitiates any partitioning of the causal effect of institutions and of efficiency wage considerations on earnings. The desire to select higher-quality workers might partly precede the institutional intervention, but on the other it might be prompted as a response to the elevation of wages by institutional factors.

Nevertheless, it can be legitimately argued that while larger firms can neutralise at least part of the higher cost of institutionally-determined wages by selecting more skilled workers, this is likely to be possible only over a period of time and for established units. Smaller units that want to increase in size could indeed be deterred by the prospect of higher gross wages in the near to medium term.

Laws affecting employment security

It has been maintained that the laws affecting job security in the formal sector have been crucial in raising the effective cost of labour, on the grounds that they have been instrumental in slowing down employment growth in this sector and discouraging small firms from graduating from the informal sector.

The Industrial Disputes Act of 1948, as modified over time, provides that units employing more than 100 workers require authorisation from the government for

retrenchments and layoffs, as well as for closure of the unit. This adds to the fixed cost of employment of regular workers in formal manufacturing units. Many firms have to maintain an administrative wing to deal with inspectors, labour boards, and ultimately the judiciary with respect to the problem of retrenchment. Clearly, the burden of such costs would vary inversely with firm size. The spectre of such dealings with labour courts would be a significant deterrent for small firms to expand to the point where they would come under the coverage of the job security legislation. Thus small-scale entrepreneurs have tended to expand horizontally by setting up more units rather than to expand the employment size of their enterprise.

The administration of the Act is the joint responsibility of the central government and the states. In practice, individual states have introduced their own modifications on the provision of job security, and implementation has also varied from state to state. Apart from variations in the effectiveness of inspection, the most important means of easing the grip of the job security legislation has been to use contract labour. Contract labour, temporaries (with less than 240 days of work in any 365-day period) and *badlis* (substitute labour) are exempt from the provisions of the legislation. The Contract Labour Regulation and Abolition Act was enacted to control the use of non-permanent workers, but under Section 10 of the Act individual states were given an opportunity to introduce their own regulations covering industries in which the job security laws were to be applied strictly. The result has been a substantial increase in the use of contract labour in recent years (from 12% in 1995to 23% in 2002). Furthermore, the proportion of contract labour used in formal manufacturing has varied significantly from state to state. Kerala and West Bengal, with communist governments, have only a small fraction of contract labour in the sector, but states such as Gujarat, Orissa and Andhra Pradesh have a portion of around 40% (Ahsan and Pages, 2007).

Beasley and Burgess (2004) exploited the inter-state variations in amendments to the labour laws to examine how the degree of strictness of the labour laws affected economic outcomes (valued added or employment growth) in formal manufacturing. However, their work considered only de jure variations. Ahsan and Pages (2007) sought to extend this work to include de facto inter-state variations in the implementation of labour regulations, as revealed by the varying proportions of contract labour. Both studies found a significant negative effect of the net bias of labour regulation on the state level of employment and value-added growth in formal manufacturing. They also found that a lower level of labour protection is associated with higher elasticity of labour demand.

Topalova (2008) used Purfield's amendment (2006) of the Beasley-Burgess classification of states as pro-worker, pro-employer or neutral in a regression to explain the ratio of tertiary to manufacturing output over the period 1980-2004. State and year fixed effects were used in the regression. The strong result was that the (lagged) labour regulation dummy was significantly negative. The service sector was seen to expand more quickly than the industrial sector in states that amended labour regulations in favour of workers, mainly as the Industrial Disputes Act applies to manufacturing workers, but not to service workers. The slower growth of the manufacturing sector is partly due to the mechanisms discouraging small-scale establishments (particularly DME units)[7] from expanding into the formal sector. Given the results (reported above) that relatively faster service sector growth is inimical to growth with equity, this result supports the conclusion that even if labour regulations might have increased security for the minority of workers employed in the formal manufacturing sector, they have actually created negative effects for the country's low-income earners.

There has indeed been some liberalisation of the provisions of the IDA, in particular at the state level (*e.g.* the reforms announced by the Maharashtra government in 2000). But some other states have amended the Act so as to provide more stringent protection of formal-sector workers (World Bank, 2006). There has also been some liberalisation in the de facto implantation of the laws, including a less rigid interpretation by the labour courts. But weak implementation is not without its costs. It leads to uncertainty among employers about the outcome of labour practices and disputes, and increases corruption and the transaction costs of employment by increasing the power of inspectors. More importantly, in the absence of a serious attempt to overhaul the entire bundle of legislation, labour laws remain, in the words of the Second National Commission for Labour, "ad hoc, complicated, mutually inconsistent, if not contradictory, lacking in uniformity of definitions and riddles, with clauses that become outdated and anachronistic" (Government of India, 2002). It is small wonder that small-scale firms face strong disincentives to enter the world of the formal sector, especially if they are lacking in resources to invest in the apparatus to combat this bureaucratic structure.

The ultimate result is to discourage workers who are attempting to find a foothold in the formal sector, in two ways. First, there is the just-mentioned reluctance of small firms to cross the threshold at which the Factory Act applies. Second, the increase in the fixed costs of employing regular workers in the formal sector firms reduces the elasticity of employment with respect to output in these firms. Detailed work on this topic has shown that the elasticity of employment in formal manufacturing in India is low, with a strong cyclical component, increasing to a modest but positive level only when the expectations of output expansion are strong (Mazumdar, 2009).

It is, nevertheless, wrong to conclude from this evidence that labour laws are the only, or even the primary, factor discouraging the informal sector from expanding into the formal sector, thereby giving rise to the phenomenon of the "missing middle" analysed above. In an international comparison of 50 or so countries, Ahsan and Pages (2007) found that India was sixth from the top in terms of labour regulations acting as a binding constraint. But when classified by the size group of firms, small firms (1-9 workers) found several types of problems to be somewhat more important than labour laws. The highest scores were for electricity and corruption problems (the latter presumably the corrupt administration of fiscal and land-use laws affecting the businesses). Labour regulations were scored to be most important by firms employing 100 or more workers (evidently reflecting the threshold of coverage by the Industrial Disputes Act).

Infrastructure

An inadequate supply of power not only leads to low productivity of small dispersed units, but also accentuates the need for heavy lump-sum capital investment for firms needing to provide their own generators for electricity, thus biasing the economies of scale in favour of very large units. While the development of wireless communications systems have helped to ease the heavy costs of information flows in marketing, the inadequate supply of electric power has hampered the transfer of computer-based technology, which has been of critical importance in enhancing the productivity and growth of SMEs in more developed economies, including parts of East and South-East Asia.

Power is not the only major problem facing healthy manufacturing growth in the Indian economy. In spite of a recent boom in construction, India suffers from a lack of adequate road and transport systems to support dispersed industrialisation. In the course

of the post-World War II growth of the East Asian economies, spatial decentralisation in the manufacturing sector has given substantial support to the growth of small-medium enterprises and contributed to the impressive record of growth with equity (Mazumdar, 2009). By contrast in India a concentration of industrial growth is observed in a few large centres. The substantial employment in important industries which have dominated the DME sector (6-9 workers) is located in a few cities or towns, where they often have to compete for infrastructural facilities with large units (such is the case with garments in Tirupur, and leather and footwear in Kolkata and Agra).

Education policies

The education polices implemented in India over the years have been biased towards the promotion of tertiary education and have neglected basic primary and lower secondary education. Modern manufacturing requires a minimum basic education for a workforce to perform up to minimum standards (Wood, 1994). SMEs, which typically adopt comparatively labour-intensive technology, benefit from an ample supply of such labour. In contrast, tiny units that could use nearly unskilled labour with less than primary education for low-grade production would find it difficult to grow beyond a certain scale with such labour. The relatively plentiful supply of skilled labour with higher education biases production towards less labour- intensive industry and modes of production. Large units have a comparative advantage in using such labour, which smaller units cannot afford.

A related point, more in the purview of sociologists, might be suggested here. The relative neglect of the lower rungs of the educational system in post-colonial India (rather unexpected in view of the assurance given in independent India's first Constitution, promising universal literacy and progress in mass education) has created an educational divide that in fact has cemented the class divide within the society. The entrepreneurs and administrative employers in the formal sector tend to come from the upper branch of this divide, and are culturally separated from the bottom rung. It is often difficult for entrepreneurs from the latter to cross the cultural barrier and graduate into formal sector units. At the same time, it would be unusual for entrepreneurs from the upper rung of the divide to look for profitable opportunities in the informal sector (including the non-household small-scale sector), when the natural ambition is to emulate those in their class who have succeeded in the formal sector of manufacturing.

This cultural-educational divide could also be an element in explaining the limited development of subcontracting in Indian manufacturing. One can again refer to East Asia, where the widespread development of subcontracting both by manufacturing and trading establishments is a key element in industrial development. Not only did such development promote small-medium enterprises in manufacturing, but it also led to a significant transfer of technology from large to small-medium enterprises, boosting productivity growth in the SME sector. Economists investigating this problem have been struck by the lack of dynamism and the technological backwardness of subcontractors in Indian industry.

Hysteresis

Finally, the limited impact of reforms on the size structure of establishments might be due to widely recognised processes due to which a socio-economic system established over a long period of time tends to persist even after the original causes have disappeared.

This persistence is not just due to inertia. Economic agents and institutions acquire characteristics that sustain the system. For example, entrepreneurs develop with ambitions to think in terms of horizontal rather than vertical growth. Marketing channels, financial institutions and infrastructure are geared more towards supporting small units serving limited markets rather than dynamic units that are growing larger and expanding into different markets.

It was argued above that the segmentation of the markets for manufactured goods into low-quality "poor man's goods" and higher-quality "rich man's goods" is one of the major reasons behind the dualistic structure, with small firms producing the former and larger firms playing a bigger role in the latter. This type of segmentation was strongly encouraged by Indian industrial polices to protect the small-scale. Its persistence might be due to a process of cumulative causation, which might be viewed as part of the phenomenon of "hysteresis" mentioned in this section. Market segmentation of this type impacts the nature of growth in a peculiar way, and tends to strengthen the degree of segmentation. The process sees a disproportionate growth of employment at low wages, while the absorption of labour at higher wages in the large-scale sector is constrained. This results in a relatively higher rate of expansion of demand at the lower end of the quality spectrum of manufactured goods. Then a cumulative process involving the protection of small units as well as a pattern of expansion of markets for manufactured goods favours the growth of demand for such goods.

To conclude, Indian economic growth in the post-reform period had been characterised by a decline in the incidence of poverty along with an increase in inequality. Another feature of the growth process has been that the reallocation of labour and value-added from the traditional agricultural sector has been led by the tertiary sector. It has been shown that rising economic inequality is a direct result of this tertiary sector-led development. Further, the relatively faster growth of employment in the tertiary sector is not predominantly due to either the emergence of the finance-business service as a major part of the sectoral reallocation, nor to the substantial entry of surplus labour from agriculture entering the tertiary sector as a sector of "last refuge". It has been argued that it is the peculiarity of the manufacturing sector – with its dualistic development with a "missing middle", which has contributed both to the slower growth of manufacturing relative to the tertiary and to the increase in inequality in both the non-agricultural sectors. While the persistence of the "missing middle" in Indian manufacturing can be partly traced to labour laws that discourage firms from moving up into the formal sector, this is by no means the only or even the main factor. Problems in infrastructure development and education policies along with historical hangovers from the post-colonial pattern of development are equally important.

4.2. The role of labour market and social policies

The concern with the informal sector

The experience of growth that significantly increases inequality and the acknowledgement that "dualism" in both the tertiary and secondary sectors of the economy have focused attention on the fact that, while a small proportion of the workforce have enjoyed the fruits of India's economic growth, the vast majority have been left behind at low levels of income even though the proportion of the population below the absolute poverty line has fallen significantly. It has been widely felt that the growth process alone would not produce a better redistribution. Central to this discussion

is the distinction between the formal and the informal sectors (or in Indian terminology the organised and unorganised sectors) of the labour market. Public debate and policy have been focused on the low economic conditions in the vast informal sector and on the possible ways that labour market and social policies can alleviate them by direct intervention.

The formal-informal sector dichotomy in the Indian economy

The distinction between the two sectors is conceptually related to a distinction between those whose employment is regulated (the formal or "organised" sector) and those who suffer from unregulated, and vulnerable employment (informal or unorganised sector). There is no unambiguous way of drawing the border line between the two. First, there is the matter of the self-employed or own-account workers who are not employed for a wage or salary. They include on the one hand workers at the bottom who eke out an income with no human or physical capital, and substantial owner-workers who supplement their own labour with that of a few hired workers. As far as wage workers are concerned, the size of the enterprise in which they work provides some guidance for a statistical separation between the two sectors. But the size at which the line is drawn is necessarily arbitrary.

International practice draws a distinction at the level of 5 workers. An attempt is also made to separate the informal sector from the self-employed on the basis of education – those with a certain level of schooling or higher, say lower or middle secondary, are considered to be in the formal sector. The National Commission for Enterprises in the Unorganised Sector (NCEUS) of the Government of India adopted a rather broader definition of the unorganised sector – placing all workers in enterprises of fewer than ten workers, as well as all the self-employed, in the informal sector. This naturally placed a very large share of the total workers in the informal sector (92.4%). Under the more conventional definitions mentioned above, the percentage of informal workers would be smaller, but still very substantial.

Income levels in the unorganised sector

It is well known in the literature that the income of the self-employed is very widely distributed. The self-employed contain marginal workers who are trying to eke out some income with minimum use of factors, but they also include small independent businesses with established markets whose income levels might exceed those of many formal-sector workers.

This is shown in the NSS data on household expenditure levels, where the different categories have been established by the occupation of the principal earner. Nine out of ten casual workers have an APCE lower than twice the national poverty line, and this is the case of three-quarters of the self-employed and two-thirds of regular workers (Table 4.10).

Table 4.10. **Distribution of workers by household welfare levels (APCE) in the Indian informal sector**

In percentage

Status	Total unorganised	Self-employed	Regular wage workers	Casual wage workers
Poor and vulnerable[a]	78.7	74.7	66.7	90
Higher income	21.3	25.3	33.3	10

a) In 2004/05, the poor, in the NCEUS classification, were those who are at or below the level of 1.25 times the official poverty line and the "vulnerable" between 1.25 and 2 times this same poverty line.

Source: Government of India (2008).

Wages in the unorganised sector

Most "casual workers" are heavily dependent on wage earnings. While 16% are landless, 64% have "sub-marginal" land holdings (less than 0.40 hectares). 78% of casual wage workers are in agriculture, and the rest in non-agriculture, with construction being the most important, followed by services and manufacturing. The low level of wages in the casual wage sector is amply documented by comparing the average daily earnings in this sector with the official minimum wage as defined under two alternative adjudications. The higher of the two minimum wage standards is the one recommended by the Central Advisory Board of 2003 set up by the Ministry of Labour and Employment under the Minimum Wage Act.

Table 4.11. **India's average daily earnings and comparison with minimum wage, 2004/05**

Industry	Average daily earnings (in INR)			Percentage below the minimum wage (at INR 66)		
	Male	Female	All	Male	Female	All
Agriculture	56.8	34.3	46.7	76.6	96.6	90.5
Non-agriculture	76.1	47.6	71.3	45.5	83.0	64.7
All casual	74.3	43.6	68.1	48.7	87.5	83.7

Source: Government of India (2008).

The low wage level is not the only problem with the conditions of work in the unorganised sector. The Commission documents in some detail the poor working conditions in this sector. While it notes that "some of the attributes of the working conditions may not be easily measurable, and data on them may be speculative and subjective (such as "good, very good, bad and poor")", there are other attributes (*e.g.* space, ventilation, temperature, humidity) which can be measured and norms set.[8]

The "wage-ladder"

Apart from the question of how much the unorganised-sector wage is below minimum wage norms, the extent of the gap in wage levels between the formal and informal sectors is of considerable interest. It shows the extent of "dualism" in the Indian labour market, particularly in comparison with other emerging economies. A detailed

analysis of the NSS data on the earnings of these two categories has been undertaken by Vasudeva-Dutta (2005). In 1999/2000, confining the sample to prime-age males, regular wage workers earned 3.3 times more than the casuals, measured at the mean, and 2.87 times more measured at the median. The dispersion of wages among regular workers is much greater than among casuals. This is because age and education variables play a much larger role in the determination of regular wages, as do industry and occupation. The single most important explanatory variable in the casual wage function (for males) was region, with age playing a minor role, and education none. Looking at manual workers alone, and controlling for age and education, regular workers earned nearly double than casuals. For rural females the differential was less (around 50%).[9]

Minimum wages

The policy recommendations of the National Commission for Enterprises in the Unorganised Sector (NCEUS), which are aimed at lifting the living standards of the unorganised sector worker, fall broadly into two categories: strengthening and enforcing the minimum wage, which is viewed as the most important issue; and increasing the productivity of labour through measures that would ease the various types of constraints faced by small farms in agriculture and microenterprises in non-agriculture (*i.e.* inadequacy of credit; low level of technology; difficulty in arranging critical raw materials; marketing of products; lack of skills). The two policy prongs are clearly interrelated. Any success on either front should increase the income of workers. There is, however, a basic difference between the minimum wage and the productivity-enhancing policies. While the latter unambiguously increases household income and then the demand for labour, the policy of increasing the minimum wage might bring about a reduction in the demand for labour. This would have the effect of decreasing employment, and would, in a casual labour market, reduce the number of days of work secured by an average worker during a year (or season). If the dampening effect on employment is sufficiently strong, the minimum wage could actually decrease the incomes of poor households in the economy as a whole.

Minimum wages in India in law and practice

The Minimum Wage Act has existed in India since 1948, but the procedures for fixing and revising of minimum wages are vague. The state government is the authority that fixes minimum wages for a give employment through an official notification, although the central government has also taken a hand in setting minimum wages for some groups of workers. While recommendations from central advisory bodies like the NRCL are common, no legislative criteria exist for fixing the level of the wages at the state level or for the power to grant exemptions to certain types of employment or penalties for violations. There is a proliferation of minimum wages in place (40 or more), varying not only by state and broad employment group, but also by activities within a major group like agriculture. In the construction industry, the central government sets eight different minimum wages for stone breaking, depending on the thickness around an inch of the stone broken (*i.e.* Ahsan and Pages, 2007; Mazumdar and Sarkar, 2008). As a result of the system's complexity, minimum wages are not well administered.

The individual sates do have a floor level of minimum wages for unskilled labour, but these have been generally at low levels. Anant *et al.* (1998) showed that several states had statutory minimum wages at well below poverty levels. Given this low level of the "minimum floor wage", it is not surprising that Ahsan and Pages (2007) found that the

distribution of casual wages by states showed a spike, in rural and urban areas separately, around the state floor wage for casual workers. It is possible that the floor wage in fact reflected the modal wage actually established in the market for casual labour in the states. These data also show an important correlation between casual wages for agricultural and urban workers and minimum wages across regions and over the periods 1993/94 and 1999/2000. This is the case even after controlling for some fixed effects that can take into account other factors that determine minimum wages. This finding suggests that the minimum wages, at least at the state-wise floor levels, might be supporting unskilled wages and do not create unemployment differences across states at these levels.

Minimum wage and employment: empirical evidence

In developed countries, minimum wages have often been a successful tool for raising earnings at the lowest level. However, minimum wages are set at levels at which the impact on the earnings structure is marginal.[10]

The NCEUS recommended that minimum wage policy should be pursued in a more active way and that it should be raised to improve the conditions of work significantly in the informal sector. It endorsed the level recommended by the NRLC, adjusted for cost-of-living changes, and called for strict enforcement. The Commission recognised that, if effective, this approach would have a positive effect on poverty reduction (and income inequality), provided there is no adverse effect on the employment of low-skilled labour.

The NCEUS proposes a higher minimum than the one in the Indian labour legislation. It recommends fixing it at a level that would assure a monthly per capita income level (MPCE) corresponding to the poverty line determined by the Planning Commission. In other words, the minimum wage should be used to bring the poverty ratio among labour households to zero. It is unlikely that such a drastic use of the minimum wage instrument could ever be implemented. It might remain in the books, and only be implemented in certain so-called "scheduled industries" or groups of establishments where monopsonistic conditions are strong and employers enjoy a significant level of surplus.[11]

Employment Guarantee Scheme (EGS)

Employment guarantee and the minimum wage

It has been recognised in the literature that, even if sensibly formulated, legislating for such a wage is not effective by itself in raising low incomes or lifting households above the poverty level. The costs of enforcement, as discussed, and the ease of evasion imply that to make any minimum wage effective it has to be backed up by a guarantee of employment by the state – to provide sufficient days of work so that the demand for an average worker's services per unit of time falls short of the supply at the stipulated wage. The days of work for which the state offers to be the residual employer must be related to the level of the minimum wage; and secondly, the minimum wage should not be too high, so as to avoid making the state carry the burden of providing for the loss of employment in the private sector caused by a high minimum wage.

A further reason for keeping the minimum wage within a reasonable level of the prevailing wage has to do with the targeting of the jobs offered under the scheme. If the wage is set at close to or just below the prevailing level in the region, then the applicants are likely to come from workers who are rationed with respect to the number of days of employment being offered at the going wage, and are suffering under-employment. With

a significantly higher level of wages offered in the Employment Guarantee Scheme (EGS) programme, labour will be diverted from existing employment and would presumably include workers from households with levels of income higher than the target group. Policy makers should appreciate that the purpose of the EGS wage rate is not to increase the daily wage rate per se (although this is likely if the programme is successful in increasing demand for labour) but to increase the earnings of labouring households by increasing the number of days of jobs secured by an average working member.

The Indian Employment Guarantee Scheme

Employment Guarantee Schemes have had a long history in India, with a succession of schemes since the 1970s both at the state and central levels. Total spending as a share of GDP and as a share of government spending fell between 1995 and 2003-04 to around a third of the spending shares in the early 1990s. Spending in real terms tracked the decline in the government spending share. While this trend has reversed in recent years, spending shares remain well below their highest point (Mazumdar and Sarkar, 2008). While the decline and recent reversal is the most prominent feature, it is interesting to note the upticks in 1993/94 and 2003-04, years preceding national elections. A similar upsurge occurred in 2009.

Starting in 2006, the Government of India assumed central responsibility for a public works scheme with the promulgation of the National Rural Employment Guarantee Scheme (NREGS). In 2009, the newly elected government made the NREG a flagship programme. The NREG Act guarantees at least 100 days of unskilled employment for at least one adult member of poor households that register for employment (at that time the real wage rate was announced at INR 100 per day). If implemented as envisaged, it would have a significant impact on low incomes.[12] The problems encountered with the Indian EGS are the following:

Administrative difficulties in implementation

As with other public works programmes in India, implementation of the NREG scheme has been slow. In the first two years only 55% of the available funds had been spent. As of September 2007, 16.6 million households had been provided some employment (around 15% of rural households), but the number of those completing 100 days of employment was only 792 000. The average days of employment generated was 39 person-days per household (Xavier, 2008). The allocations for the NREG have to be funnelled through state governments, who in turn have to depend on local authorities and other organisations to have the administrative apparatus ready for implantation. The gap between job cards issued and employment demanded has remained huge, the latter being consistently no more than 40% of the former. There is no report of the payment of unemployment benefits when jobs cannot be provided as envisaged in the NREG Act.

A further problem is the uneven state-wise distribution of projects under the scheme. Chakraborty (2007) found that the fund released by the centre to the state was significantly related to the wage-rate and enrolment, but not to the per capita state income. This is potentially regressive and suggests that more backward states fall behind in the preparation of fundable schemes, and hence get a smaller allocation of resources from the centre.

The problem of the wage rate offered under the scheme

There has been tension between the programme commitment to payment of agricultural minimum wages (time-rated) and the reliance on the tasks accomplished for wage payment. This has resulted in actual wage payments of most states falling short of official minimum agricultural wages (Mazumdar and Sarkar, 2008). This is due to rural schedules of rates for work which assume a level of capital intensity inappropriate to a labour-intensive scheme such as the NREG and thus tend to underestimate the time spent on the work.

The problem of accurate targeting

O'Keefe and Palacios (2006) analysed the NSS data for 1983, 1993/94 and 1999/2000 with respect to the distribution of beneficiary households from the public works scheme relative to the rural population as a whole. He concluded that: *a)* In all periods, public works are more concentrated among the poor than other programmes like the food Public Distribution System (PDS) or the Integrated Rural Development Programmes (IRDP), but the differences are not dramatic.[13] Below poverty line-based programmes appear to achieve no better outcomes than self-targeting, even with work wages above market wages in most states; and *b)* There is some deterioration in targeting efficiency over time. The flattening of the curve – largely between 1993/94 and 1999/2000 and for both types of programmes – is noticeable, if not extreme. Some deterioration in targeting after 1993/94 was probably to be expected, given the move during the period from geographically-targeted to national rural coverage.

Compared to the overall expenditure distribution, all three programmes are progressively targeted, but not very strongly so. Looking at the 1999/2000 figures, 57% and 89% of beneficiaries of public works (and IRDP) lived in households with monthly per capita incomes equal to or less than INR 400 and INR 600, respectively. This compares to overall population shares of 45% and 79% at the same thresholds.

The literature on workfare schemes generally assesses targeting in terms of average incidence. This may be misleading in cases where there are marginal adjustments in budgets (as is happening through the NFFWP and NREG). Analysis from 1993/94 on workfare schemes indicates that average benefit incidence underestimates the gains to poor households from increased spending on works and underestimates losses from cuts.[14]

The problem of assets created

Public works schemes have the potential to create vastly productive assets in the economy. In best practice, they employ underemployed labour to improve infrastructure, irrigation and other socially valuable assets that enhance rural productivity in the long run. But the experience with asset creation in the history of Indian public works has rarely been good. Qualitative evidence is available from official and other evaluations, though this is largely related to indicators of the quality of assets rather than rates of return.[15] This is of interest, as a common criticism of public works is that they are "washed away the next monsoon". In light of this view, the findings of a beneficiary survey were surprising. Both at the all-India level and in all states, a predominant share of beneficiaries found the quality of works very good or good. This result needs to be interpreted with considerable caution, both because of the effective "self-rating" by beneficiaries, and because the survey found that only 31% of respondents were aware of

quality specifications for works. Evidence from the evaluation surveys also indicates that maintenance of the public works assets is poor, so that even decent-quality assets may deteriorate quickly.

Another problem with asset creation concerns private versus social benefit. In the early days of the Maharashtra Rural employment scheme, it had been suggested that the scheme attracted support from the region's "kulaks", because the scheme was used to create assets that enhanced the gains of private landowners with public funds. The NREG has gone a long way to involve local grass roots organisations, like the *Gram Sabhas*, in the implementation of the programme.

The budgetary costs and financing

The NREG has been the flagship programme of the new government after its recent electoral victory. The budget for this programme has been increased 144%. It is not clear that there has been any official evaluation of the relative cost-benefit assessment of this scheme compared to other welfare programmes. Murgai and Ravallion (2005) concluded that the poverty alleviation impact of an employment guarantee scheme would be less than an untargeted transfer programme with the same budget for the entire range of possible wage rates at which the guaranteed employment is attained. Their calculations suggest that the impact of the two approaches come close only at low wage rates and with full recovery of non-wage costs. This exercise is a simulation based on a whole range of assumptions, and hence cannot be taken as a firm empirical conclusion. But there is one important point: an employment guarantee scheme would have a positive effect on the labour supply for wage labour (coming out of leisure, homework or other activities). The need to provide employment to these job seekers could indeed be high, and would obviously vary with the wage rate. A welfare transfer on the other hand tends to shrink the supply of potential job seekers through the "income effect". The potential cost of an NREG scheme must take account of this important point, and has possibly been ignored in official discussions.

Social security

A distinction is sometimes made between government programmes in the form of social assistance directed to low-income groups and social protection measures meant to protect the welfare of vulnerable groups from shocks, whether temporary or endemic. Both are to be distinguished from programmes meant to enhance the long-run growth of productivity of those at the bottom of the income distribution.

Social assistance

In addition to the scheme discussed in the last section, which seeks employment guarantees through public works, a third important scheme in India has been the Public Distribution System (PDS). It has been the key component in the country's overall food security arrangements. Over the years, the PDS has played an important role in moderating open market prices and ensuring food security at the household level by providing food grains and other essentials at lower prices. Nevertheless, in the past few decades, the mounting burden of food subsidies coupled with limited effectiveness in targeting poor households led the government to streamline the system. As a result, from 1997 onwards the Targeted Public Distribution System (TPDS) has been implemented in the country. Its main objective is to improve the consumption of the `identified poor" by

offering a specific quantum of cereals at highly subsidised prices. The current systems involved in distribution have been vehemently criticised by commentators on account of issues such as inefficiency in targeting, increased per unit cost of transfer of benefits, leakages, unequal and skewed distribution of benefits to higher-income strata (among the poor), and regional disparities in performance. Notwithstanding all this, there is evidence suggesting that the TPDS has improved coverage of poor households residing in rural areas of poor states, thereby ensuring effective food subsidies (Kundu and Srivastava, 2004). Despite the TPDS and other subsequently introduced food transfer schemes (namely The Annapurna Scheme;[16] Antyodaya Anna Yojana[17]), it is widely considered that there has been little overall improvement in the nutritional status of the population due to these schemes, which highlights the need to strengthen the existing food transfer measures even further (Remesh, 2008).

Among the cash transfer programmes on the social security front, which are equally applicable to workers in the agricultural sector, the National Social Assistance Programme (NSAP) is prominent. The NSAP, which is a social security programme for the welfare of poor households, initiated in 1995, has three components: the National Old Age Pension Scheme (NOAPS),[18] the National Family Benefit Scheme (NFBS),[19] and the National Maternity Benefit Scheme (NMBS).[20] "The amount of pension for NOAPS has been abysmally low. Data indicate that the average payment has been even less than the stipulated amount, which indicates that some of the eligible beneficiaries may not have been provided with pensions." (Remesh, 2008). From November 2007, the NAOPS was recast as a new scheme called the Indira Gandhi National Old Age Pension Scheme (IGNOAPS).[21] Similarly, the National Maternity Benefit Scheme (NBMS) was replaced by a modified scheme called the "Janani Suraksha Yojana" (JSY).[22] The existing literature suggests that the standard criticisms of government-sponsored schemes, in terms of poor design, inadequate allocation, improper implementation and weak beneficiary participation, also hold true in the case of the above cash transfer programmes.

Social insurance

It has long been recognised that shocks of various kinds make the long-term problem of poverty and destitution particularly important in poor countries. "Survey evidence confirms the impact of uninsured shocks on household welfare. This is particularly the case for health shocks, and for the poor (*i.e.* Peters *et al.*, 2002; Dufflo, 2005). Data indicate that at least 24% of Indians who are hospitalised fall into poverty as a result. There are also concerns that credit market failures drive coping mechanisms which may turn transient poverty into long-term and even inter-generational poverty, *e.g.* withdrawal of children from school; debt bondage, etc. Such effects have been analysed for countries such as Indonesia, which stress that the benefits of social insurance in poor countries may come less from the direct contribution to consumption smoothing than the reduction of destructive coping strategies to smooth consumption (O'Keefe and Palacios, 2008).

Given the high rate of informality in Indian labour markets and the level of income, social insurance coverage is predictably low and is concentrated heavily in the organised sector. Mazumdar and Sarkar (2008) provide coverage estimates of different social insurance instruments in 2004/05 across the APCE distribution and show not only the failure of formal health and pension insurance systems to expand coverage to the poor, but also the growing penetration of life insurance driven by the commercial insurance sector for those at the top of the distribution.

In India, a large number of schemes have been operating for some time under the responsibility of both the central and state governments. A majority of these schemes have been operated by state governments, but receive financial assistance as well as advice from the centre. These schemes are of varying sizes and coverage, and they are often pursued as trial schemes in limited areas or population groups.

Welfare funds

One rather popular group of schemes follows the Social Welfare Fund model. Welfare funds have potential as vehicles for expanding social insurance to some segments of the unorganised sector. They provide interesting parallels to occupational social insurance schemes in OECD countries at earlier stages of development. Education is the most commonly provided entitlement across funds, followed by medical cover and pensions. The benefits provided spread beyond typical social insurance, raising concerns about the ability to provide financial protection to face shocks. As for the pension portion of the schemes, the large majority are defined as benefit programmes, with benefits typically expressed in nominal INR and hence subject to deterioration in real value.

O'Keefe and Palacios (2008) has summarised some of the basic problems of the large number of welfare funds used in India:

- Administrative costs are extremely high in the smaller funds. This poor performance is remarkable given that financing is excise-based and should not demand the intensity of administration of funds based on contributions.
- The small and occupationally concentrated risk pools of a number of funds risk driving high administrative costs and weak capacity to absorb significant covariate shocks. These challenges can be surmounted through group insurance with commercial insurers, but it remains unclear to what extent this has been exploited.
- The scope of benefits in many funds is likely to contribute to inadequate financial protection for any specific type of benefit. This in turn risks benefits becoming supplements to smaller and/or more predictable expenditures, rather than being focused on larger shocks.
- For the insurance-like benefits in welfare fund benefit packages, there appears to be no actuarial basis for contribution determination. In light of this, the extent to which the schemes can be considered insurance rather than partial pre-payment schemes is an issue.
- There appears to be no example of a rigorous impact study of welfare scheme participation.

Other government schemes

During the past decade, the government has sought to promote a number of schemes for the unorganised sector through non-welfare fund mechanisms. These are large in number: sometimes they are revised and consolidated from previous ventures (Table 4.12).

Table 4.12. **Major social insurance and pension schemes in India since 2000**

Programmes	Year of launching	Objective	Target groups	Sources of contribution
Janshree Bima Yojana	2000	Insurance cover in the events of natural and accidental death as well as partial/permanent disability.	Urban and rural poor who live below the poverty line or on the margin.	Central government and the beneficiaries/some nodal agency/state government.
Krishi Samajik Suraksha Yojana	2001	Some life-cum-accident insurance, a lump sum money back after 10 years and a moderate pension.	Agricultural workers in the age group of 18-50 years.	Central government and the beneficiaries.
Varishta Pension Bima	2003	An assured annual return of 9 per cent on the investments of beneficiaries, in the form of monthly pension.	Unorganised workers aged 55 years and above.	Fully financed with the investments of beneficiaries.
Unorganised Sector Workers Social Security Scheme	2004	A moderate level of old age pension, personal accidental insurance and medical insurance.	Unorganised and self employed workers in the age group of 18-50 years and drawing a lower level of salary/wage/income per month.	Beneficiaries and the central government.
Universal Health Insurance Scheme	2004	Some reimbursement of medical expenses; life-cum-accident insurance; and compensation on job loss.	Persons and families below poverty line.	Insurance premium from beneficiaries.
Aam Admi Bima Yojana	2007	Provide some death and disability benefits to the rural landless poor.	Unorganised landless households.	Central and state government.
Rashtriya Swasthya Bima Yojana	2007	Provision of some health insurance to worker families.	Unorganised workers falling below the poverty line.	Government of India and the state government; A nominal annual fee from beneficiaries.

Source: Compiled from Government of India (2008).

O'Keefe and Palacios (2008) summarised the problems with these schemes as follows:

- The roll-over of insurance schemes at central level has been frequent. When trust in the whole notion of insurance may be low and information dissemination is weak and often slow, such policy uncertainty is problematic. The frequent introduction of schemes appears to be more driven by political imperatives than guided by a medium-term strategy for the sustainable expansion of different types of cover to the unorganised sector.
- While the need is high, taking on health insurance in several schemes confronts the most challenging area of social insurance first, where moral hazard risks and administrative demands are high. Factors such as easy verification and revealed demand in Table 4.10 above suggest that efforts focused on life insurance may be a more feasible starting point.
- Most central schemes have to date failed to address the fundamental issue of high transactions costs and the need for decentralised distribution networks.
- As with welfare funds, it is not apparent that the contributions for various schemes are based on an informed assessment of claims information from existing insurance products.

NGO and community-based initiatives

Given the rather low coverage of government schemes in India, there has been major interest in Community-based Insurance Schemes (CBMI). Estimates of the scale of social insurance provision by NGOs and other community-based actors (e.g. microfinance institutions; health facilities) vary from a figure of around 3 million to around 5 million

(Berman and Ahuja, 2005). The experience to date is mixed, with serious questions remaining about the capacity to go to scale, given the (in some cases heavy) reliance on subsidies from founding institutions and donors. In addition, community-based initiatives have up to now generally focused on health insurance, and have not yet addressed other types of social insurance, particularly as related to old age. Finally, there are legal issues with respect to the CBMI, as the IRDA Act does not provide for such schemes as part of the broader insurance market (Devadsan *et al.*, 2004).

The Unorganised Sector Social Security Act

The new left-leaning coalition government made social security for the unorganised sector a prime consideration of its social sector policy and to this end created the National Commission for Enterprises in the Unorganised Sector (NCEUS). The NCEUS recommended in 2006 the introduction of a national social insurance scheme offering old-age pensions, health insurance, and maternity benefits, as well as life and disability insurance, to all workers in the unorganised sector. A draft Bill was presented to the government that:

- Defines a worker to include all types, the self-employed, casual and contract workers as well as those with a fixed employer;
- Identifies each worker by allocating him/her a unique social security number and card;
- Binds the government to provide a minimum but comprehensive package of benefits;
- Creates a participatory structure that includes existing civil society and government organisations, including welfare funds;
- And sets a "floor level scheme" that includes: *a)* without worker participation: life, health, disability, insurance and maternity benefits; and *b)* with worker participation: old-age benefits, including pensions.

After considering several versions of the bill over nearly two years, a Social Security Act for the unorganised Sector was passed by the Indian Parliament on 30 December 2008. This piece of legislation did not set out any new approach to social security. Rather, it established a "National Social Security Board" that is to meet regularly and recommend to the government "suitable schemes for different sections of the unorganised workers". It was also envisaged that each state would similarly set up a Social Security Board specific to that state. The central government is to give directions to the national as well as the state boards on the details of specific schemes – as indeed the state government could give directives to the respective state boards. The role of these Social Security Boards would be to oversee and co-ordinate the administration of the different schemes in operation.

An important provision in the Act called for the registration of every unorganised worker above 14 years of age and the issuance of an identity card that would make the worker eligible for the social security benefits available upon the fulfilment of the conditions necessary for the benefit (including the payment of a contribution, if required). This provision would seem to be important in raising the awareness of workers in the sector about their rights to social security benefits, and could in effect serve as a catalyst for increasing popular demand for needed coverage in the future.

Financing social security

The government has played an increasing role in the financing of the social sector. The responsibility for funding this sector is shared by the central and state governments, with the latter providing much the larger share of the outlay. However, the fact that the finances of the states depend on grants from the centre make the leadership of the central government critical. As shown in Table 4.13, there has been a long-term upward trend in the social sector expenditure in the government budgets since 2002/03.

Table 4.13. **Expenditure on the social sector in India, 2002-08**

In percentage

Year	Percentage of GDP	Percentage of total government expenditure	Of those:		
			Education	Health	Other
2002-03	5.6	19.3	9.6	4.3	5.5
2003-04	5.5	19.9	9.7	4.3	5.9
2004-05	5.7	21.1	10.0	4.7	6.3
2006-07	5.8	21.6	10.3	4.7	6.5
2007-08	6.4	22.4	10.0	4.9	7.5
2008-09[a]	6.7	24.1	10.8	5.1	8.2

a) Estimation.

Source: Economic Survey 2008/09, Government of India.

The Government of India Economic Survey for 2008/09 reports that the expenditure on the social sector increased by more than 1% between 2002/03 and 2008/09, while total expenditure as a percentage of GDP fell slightly from 29% to 28%. The Economic Survey distinguishes expenditure on the major categories like education and health from the "others", which include all social welfare schemes, including those directed to the informal sector. The expenditure under the latter heading increased much faster – accounting for 34% of all expenditure on social services in 2008/09 (as against 30.3% in 2002/03).

The emphasis on the rural sector directly targets the poor who are concentrated in the rural areas. Further, this emphasis goes beyond measures of social assistance and welfare per se. There was an increase of 144% on the NREG scheme, and the high-profile PMGSY programme (which aims to connect every village with roads) was given a 59% boost in the budget allocation.

It is clear that the significant increase in government financing to the social sector is geared more to poverty-alleviation measures rather than social insurance per se. This, of course, goes against the recommendations of the NCEUS, which proposed a massive increase in government responsibility for a comprehensive scheme of social insurance, including financially. Reviewers of these recommendations and the subsequent Bills based on them have been sceptical of their over-ambitious nature.

O'Keefe and Palacios (2008) concluded that the increased commitments to the NREG scheme and midday meals – combined with existing significant spending on other social protection programmes – are increasing social welfare spending as a share of GDP. This, together with democratic reform and the opening of the economy, suggests that future significant expansion in social protection spending would be likely to be for social insurance, rather than for social assistance.

Fiscal imbalance

One worrying aspect of the admittedly modest and selective increase in social sector spending in the current budget is that it has been a factor in the significant increase in the budget deficit. The downward trend in the fiscal deficit observed in the first eight years of the decade has been reversed in the 2008/09 budget – which shows an increase in the consolidated deficit of 8.1% of GDP, up from 5.0% in the previous year. Specialists in fiscal analysis disagree with the Finance Minister's statement that this downturn in fiscal fortune is due primarily to the global slowdown and the stimulus package needed to correct it. Govinda Rao (2009) concluded in a recent analysis that the problem is largely structural, as the fiscal problem in 2008/09 was not sudden and the slowdown in the economy has had only a small role in its deterioration. The increase in social spending should not of course be singled out as the sole culprit for the emerging fiscal deficit. A closer analysis by Govind Rao (2009) revealed that there was significant under-provision of resources in the previous budget (perhaps due to government efforts to stick to the boundaries laid down by the Fiscal Responsibility and Budget Management Act enacted by Parliament). Additional expenditure incurred from Supplementary Demands on the Budget amounted to no less than 2.8% of GDP. These included expenditure on fertiliser and food subsidies (to the tune of 1.1% of GDP) as well as allocations to the NREG and other state schemes. A fall in tax revenue, which can be partly attributed to the slowdown and the tax cuts, accounted for 1.5% of GDP.

To conclude, the fiscal situation in India at present cannot stand the strains of a large increase in spending on the social sector. It is also possible that the poor in the informal sector could be better helped at the margin by more expenditure devoted to measures to promote economic development that would enable them to move out of poverty – for example, expenditure on infrastructure, education and agricultural development. The emphasis in such policies might be on productivity – enhancing measures to help the small-scale and informal sectors. There is, of course, always the distant possibility that the resource base of the fiscal economy would be significantly increased by casting the net of revenue collection to cover the large amount of income that is not reported fully. There are also possibilities for significant changes in the composition of expenditure: discussion in India stresses the need to divert spending from costly subsidies in particular. But major changes along these lines require basic movements in the political economy of the country, which might not be forthcoming in the short-to-medium term. In their absence, an attempt to proceed with fiscally unrealistic social sector spending would come up inevitably against the inflation barrier – which in the end hurts the poor proportionately more.

4.3. Conclusion

The first part of the chapter focused on the analysis of the basic feature of recent Indian economic growth. It showed that, even as the growth accelerated in the post-reform decade and the incidence of poverty declined there was a significant increase in inequality. This increase in inequality has been due to a peculiar nature of Indian development, which contrasts not only with the historical evidence of development from low levels of income, but also with the experience of today's successful developing countries like China. In India, the lead in employment and output growth has been taken not by manufacturing but by the tertiary sector. The chapter has advanced the thesis that the reasons for this pattern of growth are to be found not in the tertiary sector but in the Indian manufacturing sector – which has been characterised by a dualistic size

distribution with a conspicuous "missing middle". This particular phenomenon has not only slowed down the growth of manufacturing, but also contributed to the observed increase in inequality both in the manufacturing and tertiary sectors.

Policies that have aided the transformation of the dualistic manufacturing sector into the pattern that has been so successful in the manufacturing development of East Asian economies would help foster more equitable growth, and also promote a higher, and perhaps more sustainable, manufacturing-led growth. This requires not just promoting small-scale enterprises (which has indeed been a historic Indian policy for a long time) but also encouraging the vertical mobility of small firms into medium-scale ones. Looking into the causes of the "missing middle", while this persistent phenomenon can be partly traced to labour laws that discourage vertical mobility, this is by no means the only or even most important factor. Problems in infrastructure development and education policies along with the historical hangover from the post-colonial pattern of development are equally important.

One important consequence of the pattern of Indian development is that much of the labour reallocated from agriculture is absorbed in the informal sector, where earnings are only slightly higher than the poverty line. Indian policy makers have been concerned for some time about measures to alleviate the poor income and working conditions in this massive sector of the labour market. Section 4.2 has reviewed the different policies planned or in some phase of implementation. They are of two types: direct labour market policies involving a minimum wage and/or job creation (public works schemes); and policies centred on social assistance and social insurance. The list of such measures is long, partly because responsibility is shared between the central and state governments, and thus many different administrations are involved. There does not seem to have been a systematic attempt at the difficult task of evaluating the relative merits of many of these schemes in terms of their costs and benefits.

The present central government has adopted the Employment Guarantee Scheme as its flagship programme, expanding its coverage substantially and guaranteeing at least a certain minimum days of work for each job seeker. In the conditions of the Indian labour market, where under-employment of a large part of the labour force over a period of time is more important than open unemployment for a significant period, the Employment Guarantee replaces Unemployment Insurance as the more sensible policy tool to pursue. While there has been lengthy experience in India with such programmes, the explicit guarantee of 100 days of work per year for every rural job seeker is a new and bold departure. Policy makers will be waiting eagerly for the evaluation of this programme as it evolves.

Although numerous social insurance schemes have been established, their actual impact has been limited and regressive (in so far as they have disproportionately benefited workers in the small formal sector). The initiative taken by the new government seeks as a first step to issue identity cards to all unorganised sector workers that would enable them to claim social security benefits. This provision would seem to be important for raising the awareness of workers in the sector about their rights to social security benefits, and could in effect serve as a catalyst for increasing popular demand for needed coverage in the future. A social security Board has been established to co-ordinate and centralise the many ongoing schemes, which ultimately need to be rationalised and expanded into a coherent programme.

The Indian fiscal situation has been pressing at the limits of a critical level of deficits. While the projected budget for the social sector has increased from 5.5% to 7.5% of GDP over the present decade, it is clear the fiscal situation in India at present cannot stand the strains of a large increase in such spending. In the absence of fundamental changes in the fiscal base of the economy (in terms of an extended tax net covering the undeclared part of incomes) or of a massive overhaul of expenditure in areas like subsidies and defence spending), the government will have to work within severe financial constraints. The problem of choosing between alternative programmes assumes importance in this context. A more sustained evaluation of the major programmes that generates information about the cost-benefit ratios of individual schemes is sorely needed.

Notes

1. According to Banerjee and Pickety (2005), after a secular decline until the 1980s, the income share of the top 1% of the distribution increased gradually to 9-10% in the late 1990s (it decreased by 12-13% in the 1950s and 4-5% in the 1980s). There was a similar turnaround in the narrower group of the top 0.1%, except that the share of the richest group seems to have accelerated further in the 1990s.

2. It is usual to date the period of reform from the devaluation of the rupee in 1991, but Rodrick and Subramnian (2004) have pointed out convincingly that the acceleration of the Indian economy's growth can be traced to the early 1980s, which coincided with the pro-growth and pro-business polices gradually adopted by the second era of the Indira Gandhi government, and which were pursued more deliberately by her son Rajiv Gandhi.

3. In India, the concept of the poverty line was partly normative and partly behavioural. Based on observed consumer behaviour in 1973/74, the Planning Commission estimated that on average, consumption expenditure of INR 49.09 per capita per month was associated with a calorie intake of 2 400 per capita per day in rural areas and INR 56.64 per capita per month with a calorie intake of 2 100 per day in urban areas. Such measures focus on the purchasing power needed to meet the specific calorie intake standard, with some amount for non-food consumption needs, as chosen by consumers in the year 1973/74. The poverty line has been updated over the years but only to allow for changes in prices with reference to the consumption basket associated with the poverty line in the base year (1973/74). This procedure for updating the poverty line did not allow for changes over time in the consumption basket used to meet the calorie norm. The calorie norm was not considered important; rather, the emphasis was on comparability across time (Hashim and Sarkar, 2007).

4. Topalova (2008) presented a simple breakdown of the change in the poverty rate into two components: one due to growth and the other to change in the distribution of consumption. This was done by calculating a counterfactual of poverty change, holding the initial distribution unchanged, and comparing the result with the actual change. The results show that while in 1983/93 redistribution helped to enhance poverty reduction, particularly in the rural areas, in the post-reform decade the distribution element

reduced the extent of poverty reduction significantly both in rural and urban areas. Distribution-neutral growth would have generated a poverty decline in rural India (in the latter period) that was 22% higher, whereas in urban areas the decline in poverty would have been 76% higher.

5. See Annex 4.A1 for a summary of the method used. First, an earnings function is estimated for hourly earnings. Second, the coefficients of the significant explanatory variables, together with the other relevant statistics for the covariance and correlation coefficients, are used to calculate the "factor inequality weights" (*i.e.* the share of the inequality measure accounted for by each of the different explanatory variables).

6. See Annex 4.A1 for details on the methodology used.

7. Directory Manufacturing Establishments (DME) employ six to nine workers, at least one of whom is a hired worker.

8. In India, the Factories Act (1948) has provided standards for some of these variables for the formal sector. There is ample evidence from case studies in the unorganised sector showing that these standards are not always met, and that generally conditions are deplorable in the work place in terms of variables that are not immediately measurable.

9. However, detailed studies of wages have shown that there is a hierarchy of wage levels even within the organised sector establishments (*i.e.* a careful study from the World Bank in Little *et al.*, 1987). Significantly lower wage differences are found not only for 'uncovered' workers but also for workers employed in smaller factories within the covered sector. These wage differences most likely reflect differences in labour productivity and are of critical importance to the analysis of Indian labour markets.

10. In the United Kingdom, for instance, in 1991, when the minimum wage was introduced, it was 0.87 of the average wage of the lowest decile and 0.47 of the median. The ratios increased to 0.91 and 0.51 respectively in 2006 (Mazumdar, 1989).

11. See Annex 4.A4 for a more detailed discussion on the heterogeneity of labour in developing countries.

12. An article in the *Times* of India pointed out that if a family below the poverty line were to get the full benefit of the scheme they could earn the equivalent of 40% of their annual income from this scheme alone (Special Report, 23 July 2009).

13. This finding requires a caveat. The public works response from the NSS captures households who relied heavily on works employment – likely a poorer-than-average sub-sample of total public works participants. A proper comparison will be possible once the 62nd round becomes available.

14. Lanjouw and Ravallion (1999).

15. See CMD (2005), PEO (2002) and IDS (2002).

16. The Annapurna Scheme, launched by the central government, provides 10 kg of rice or wheat to the destitute elderly who have no other support either formally or informally. The scheme operates through the Department of Civil Supplies of the state governments, and beneficiary estimation was provided by the central government. Due to administrative and procedural problems, in some states the scheme was not started and in others it was dropped (Remesh *et al.*, 2006).

17. The Antyodaya Anna Scheme of the central government seeks to cover 10 million of the poorest households from amongst 65 million below-poverty-line (BPL) families by making available 25 kg of wheat and rice at highly subsidised rates. The prospective beneficiaries of the programme were identified by local-self government institutions in open meetings. A few recent studies suggest that there are substantial drawbacks for the programme in terms of beneficiary identification and targeting errors, inadequate and improper coverage, faulty implementation and leakages (Remesh *et al.*, 2006).

18. The National Old Age Pension Scheme (NOAPS) is available to all poor persons aged 65 years or older. Under the NOAPS, the central government provides for INR 200 per pensioner and per month and the states are urged to contribute an equal amount.

19. Under this scheme, a lump-sum cash assistance (INR 10 000) is provided to households below the poverty line on the death of the primary bread winner. For further details see Government of India (2008).

20. This programme assures a fixed sum (INR 500) for pregnancy up to the first two live births.

21. Under this scheme, an old-age pension was extended to all citizens over age 65 and living below the poverty line. The state governments have been asked to top up the central government per capita grant of INR 200 per month and to certify that all eligible persons have been covered.

22. While the NMBS is linked to provision of a better diet for pregnant women from below-poverty-line families, the JSY integrates the cash assistance with antenatal care during the pregnancy period and institutional care during delivery and the immediate post-partum period in a health centre by establishing a system of co-ordinated care by a field-level health worker. The state-level implementation of the scheme is organised with the help of an accredited social health activist (ASHA), who effectively serves as a link between the government and the poor pregnant women.

References

Ahsan, A. and C. Pages (2007), "Are All Labour Regulations Equal? Assessing the Effects of Job Security, Labour Dispute and Contract Laws in India", World Bank Policy Research Working Paper No. 4259, Washington, DC, June.

Anant, T.C.A., K. Sundaram and S.D. Tendulkar (1999), *Employment and Labour in South Asia*, International Labour Office, Geneva.

Asian Development Bank (2009), "Enterprises in Asia: Fostering Dynamism in SMEs", Special Chapter in *Key Indicators for Asia and the Pacific 2009*, Manila.

Banerjee, A. and T. Picketty (2005), "Top Indian Incomes 1922-2000", *World Bank Economic Review*, Vol. 19, No. 1.

Berman,P. and R. Ahuja (2005), "Exploring the Feasibility of Financing Health Insurance for Low-income Groups in India", mimeo, World Bank, New Delhi.

Besley T. and R. Burgess (2004), "Can Labour Regulation Hinder Employment Performance? Evidence from India", *Quarterly Journal of Economics*, Vol. 17, No. 3.

Center for Management Development (CMD) (2005), *Concurrent Evaluation of SGRY*, Ministry of Rural Development, Government of India, New Delhi.

Chakraborty, P. (2007), "Implementation of the National Rural Employment Guarantee Act in India: Spatial Dimension and Fiscal Implementation", The Levy Economic Institute Working Paper No. 505, Annandale-on-Hudson, NY.

Devadasan. N., Ranson, K., Van Damme, W. and B. Criel (2004), "Community Health Insurance in India: An Overview", *Economic and Political Weekly*, Vol. 39.

Duflo, A. (2005), "Health Shocks and Economic Vulnerability in Rural Rajasthan", mimeo, Harvard University.

Fields, G. (2002), "Accounting for Income Inequality and its Change: A New Method and its Application to the Distribution of Earnings in the United States", Discussion Paper at Cornell University, available at *http://digitalcommons.ilr.cornell.edu/articles/265/*.

Government of India (2002), *Report of the National Commission on Labour*, Ministry of Labour.

Government of India (2008), *Report on Conditions of Work and Promotion of Livelihood in the Unorganised Sector*, National Commission for Enterprises in the Unorganised Sector, Academic Foundation, New Delhi.

Govinda Rao, M. (2009), "The Fiscal Situation and a Reform Agenda for the New Government", *Economic and Political Weekly*, Vol. XLIV, No. 25, Mumbai, June 20.

Institute of Development Studies (IDS) (2002), *Evaluation for the Planning Commission of Employment Programs in Rajasthan*, Jaipur.

Lanjouw, P. and M. Ravallion (1999), "Benefit Incidence, Public Spending Reforms and the Timing of Program Capture", *World Bank Economic Review*, Vol. 13, No. 2.

Little, I.M.D., D. Mazumdar and J. Page (1987), *Small Manufacturing Enterprises*, Oxford University Press and the World Bank, New York.

Mazumdar, D. (1973), "Labour Supply in Early Industrialization: The Case of the Bombay Textile Industry", *Economic History Review*, Vol. XXVI, No. 3.

Mazumdar, D. (1989), "Micro-Economic Issues of Labour Markets in Developing Countries: Analysis and Policy Implications", Economic Development Institute Seminar Paper No. 40, World Bank, Washington, DC.

Mazumdar, D. (1991), "Import-Substituting Industrialization and Protection of the Small-Scale", *World Development*, Vol. 19, No. 9.

Mazumdar, D. (2009), "The Role of SMEs in the Economic Development of Taiwan", mimeo, Draft Paper produced for the IDRC/IHD ongoing Research Project on Formal and Informal Employment Growth in Manufacturing in South Asia (India and Bangladesh).

Mazumdar, D. and S. Sarkar (2008), *Globalization, Labour Markets and Inequality in India*, Routledge, London.

Murgai, R. and Ravallion, M. (2005), "Is a Guaranteed Living Wage a Good Anti-Poverty Policy", World Bank Policy Research Working Paper No. 3640.

O'Keefe, P. and R. Palacios (2006), "Evaluating the NCEUS Social Security Proposals in the Light of International Experience", *Economic and Political Weekly*, No. 41.

O'Keefe, P. and R. Palacios (2008), "Strengthening Employment and Social Security for Unorganized Sector Workers in India", Chapter 12 in Mazumdar and Sarkar (2008).

Peters, D.H. *et al.* (2002), "Better Health Systems for India's Poor: Findings, Analysis and Options", mimeo, World Bank, Washington DC.

Programme Evaluation Organization (2002), Study on Employmnet Assurance Scheme (EAS), Planning Commission of the Government of India, New Delhi.

Remesh, B.P. (2008), "Rethinking Social Protection for India's Working Poor in the Unorganized Sector" Draft, V.V. Giri National Labour Institute, Noida, India.

Remesh, B.P., A. Sathpathy *et al.* (2006), "Assessing Social Security Measures", mimeo, Report submitted to HDRC/UNDP New Delhi, V.V. Giri National Labour Institute, Noida, India.

Sarkar, S. (2009), "Income and Earnings Inequality", Chapter 4 in *Employment Report for India*, Draft, Institute of Human Development, New Delhi.

Topalova, P. (2008), "India: Is the Rising Tide Lifting All Boats", International Monetary Fund Working Paper No. 08/54.

Vasudeva-Dutta, P. (2005), "Accounting for Wage Inequality in India", PRUS Working Paper No. 29, Department of Economics, University of Sussex.

Wood, A. (1994), North-South Trade, Employment and Inequality, Clarendon Press, Oxford.

World Bank (2006), "India's Employment Challenge: Creating Jobs, Helping Workers", unpublished report, Poverty Reduction and Economic Management, South Asia, 18 March.

Xavier, Deepak L. (2008), "Minimum Conditions and Missing Resources", Center for Budget and Government Accountability (CBGA), New Delhi.

Annex 4.A1

The methodology of decomposing the contribution of significant variables to income inequality

The methodology of the determinants of inequality applied in the analysis is that developed by Fields (2002). The analysis depends ultimately on the estimation of a standard earnings function. Fields argues that the log linear earnings function expresses the log of income as the sum of a number of variables, whose individual contribution to the log of income is expressed by a term that depends on the estimated coefficients of the explanatory variables included in the function. This function then has an additive form in which the total income of the individual (Y) is the sum of the components of the earnings function (Y_k). Under some specific assumptions, with an additive function, the "relative factor inequality weight", *i.e.* the percentage of income inequality that is accounted for by the kth factor (s_k) is given by:

$$s_k = \text{cov}(Y_k, Y) / \sigma^2(Y) \qquad [1]$$

Fields then develops an argument which shows that for *any* inequality measure I(ln $Y_{1,.....}Y_N$) which is continuous and symmetric in the form $Y_{it} = a_t Z_{it}$, the "relative factor inequality weight" would be given by:

$$s_j(\ln Y)/ R^2(\ln Y) \qquad [2]$$

where: $\Sigma\, s_j(\ln Y) = R^2(\ln Y)$

and $s_j(\ln Y) = \text{cov}[a_j Z_j, \ln Y]$

$$= a_j * \sigma(Z_j) * \text{cor}[Z_j, \ln Y] / \sigma(\ln Y) \qquad [3]$$

Equation [3] can be used to perform a quantitative measure of the contribution of various explanatory variables in the earnings function to the determination of the earnings of the group in question.

Fields also has a method of measuring the contribution of different variables to *changes* in income inequality, starting with an estimation of the earnings function. But this method is a little problematic, because it is dependent on the specific measure of inequality used and hence is unstable.

Annex 4.A2

Calculation of the "Pseudo Gini" for different sources of income

The Gini coefficient for total income inequality, *G*, can be represented as *G = sigma (Sk*Gk*Rk)*, where:

- *Sk* represents the share of source *k* in total income, *Gk* is the source Gini corresponding to the distribution of income from source *k*, and
- *Rk* is the Gini correlation of income from source k with the distribution of total income.

The influence of any income-earning activity upon total income inequality depends on: how important the income source is with respect to total income (*Sk*); how equally or unequally distributed the income source is (Gk); and how the income source and the distribution of total income are correlated (*Rk*).

Pseudo-Ginis for sectors are calculated as follows:

- Generally calculated for functional income sources in the income budget of a household; *e.g.* farm income, wage income, profits, etc. (see Lanjouw and Stern, 1998, pp. 389-91 for details). But this can be adapted for income derived from sectoral sources: tertiary, secondary and primary.
- In the NSS, there are not incomes but expenditures. Furthermore, households are characterised by the principal occupation (income source) of the household head.
- Nevertheless, the pseudo-Gini technique can be used on the NSS data, going back to the fundamental concept and interpreting the result correctly. Basically, it seeks to supplement the usual Gini calculations by relating the income of a household not to the distribution of its own type of income, but to the overall income (or expenditure) distribution. For example, tertiary sector households (*i.e.* those households who get their main income from the tertiary sector) could be predominantly found in the higher-than-mean income brackets. In this case, the normal Gini for these households could well be very low, although with respect to the income distribution of the entire sample of households, income from this sector would be very unequal. In the NSS, we have the further issue that not all income from each of the three sectors is fully measured. Rather, households in each sector are assumed to derive all their income from one sector only—the sector of the main household earner's occupation.

The Pseudo-Gini thus calculated for each sector does not measure the contribution to overall inequality of each source of income. Rather, it gives an answer to the more restricted question: what is the contribution to inequality of households operating in different sectors, where households are classified by the sector of occupation of their main earner.

Table 4.A2.1. **Sectoral contribution to household inequality, 1983-2005**

Sector	Sk	Gk	Rk	Share	Pseudo Gini (Gk*Rk)	Gini (sk*Gk*Rk)
1983						
Primary	0.478	0.597	0.271	0.222	0.162	0.078
Secondary	0.176	0.903	0.511	0.232	0.461	0.081
Tertiary	0.346	0.828	0.666	0.547	0.552	0.191
1993-94						
Primary	0.407	0.662	0.262	0.185	0.174	0.071
Secondary	0.170	0.903	0.494	0.199	0.446	0.076
Tertiary	0.423	0.795	0.698	0.616	0.555	0.235
2004-05						
Primary	0.305	0.741	0.224	0.134	0.166	0.051
Secondary	0.196	0.870	0.380	0.172	0.330	0.065

Source: Author calculations from *National Sample Survey Database.*

Annex 4.A3

The Indian manufacturing sector

Indian manufacturing is characterised by the prevalence of a large "unorganised sector" existing side by side with the formal or organised sector. India's statistical authorities distinguish four types of establishment. There are three sub-categories within the unorganised sector: *i)* Own-account manufacturing enterprises (OAME), which are household enterprises making use only of family labour; *ii)* Non-directory manufacturing establishments (NDME), which employ at least one wage (hired) worker) and have two to five workers in total; and *iii)* Directory manufacturing establishments (DME), which employ six to nine workers in total, of whom at least one would be a hired worker. These three sub-categories co-exist with the formal or organised sector, which are statistically defined (by the Factory Act) as employing ten or more workers. Table 4.A3.1 provides a statistical profile of the manufacturing sector in India based on the above four size categories. The dominance of the household sector as well as its low productivity is apparent from this table.

Table 4.A3.1. **Employment and value added in manufacturing by type of establishment, 2000/01**

	OAME	NDME	DME	Organised
Distribution of employment (% of all manufacturing)	55.9	12.4	14.4	17.3
Mean all workers in category	1.7	3.2	10.0	63.9
Mean hired workers in category	0.0	1.8	7.8	60.9
Distribution of value added (% of all manufacturing)	10.3	6.8	8.9	74.3
Mean VA/Worker in category (in INR)	6 929	18 479	20 800	163 775
Productivity (organised sector = 100)	4.2	11.3	12.7	100

Source: National Sample Survey and ASI unit level data for 2000/01.

While the importance of the household sector in Indian manufacturing is clearly a factor in the observed low productivity of manufacturing as a whole, a second major problem is the peculiarity of the structure of India's manufacturing sector, which makes use of hired labour as the dominant type of employment in the enterprise. This includes both the DME and the organised sector as defined under the Factory Act (and covered by the Annual Survey of Industry).

The DME establishments (6-9 workers) include the small enterprises in modern manufacturing. In international statistical practice, these are generally included in surveys or censuses covering the Factory Manufacturing sector (the cut-off point generally being five workers). To put the Indian size distribution in modern manufacturing in perspective,

we can include these enterprises along with the ones in the formal sector covered by the Annual Survey of Industries.

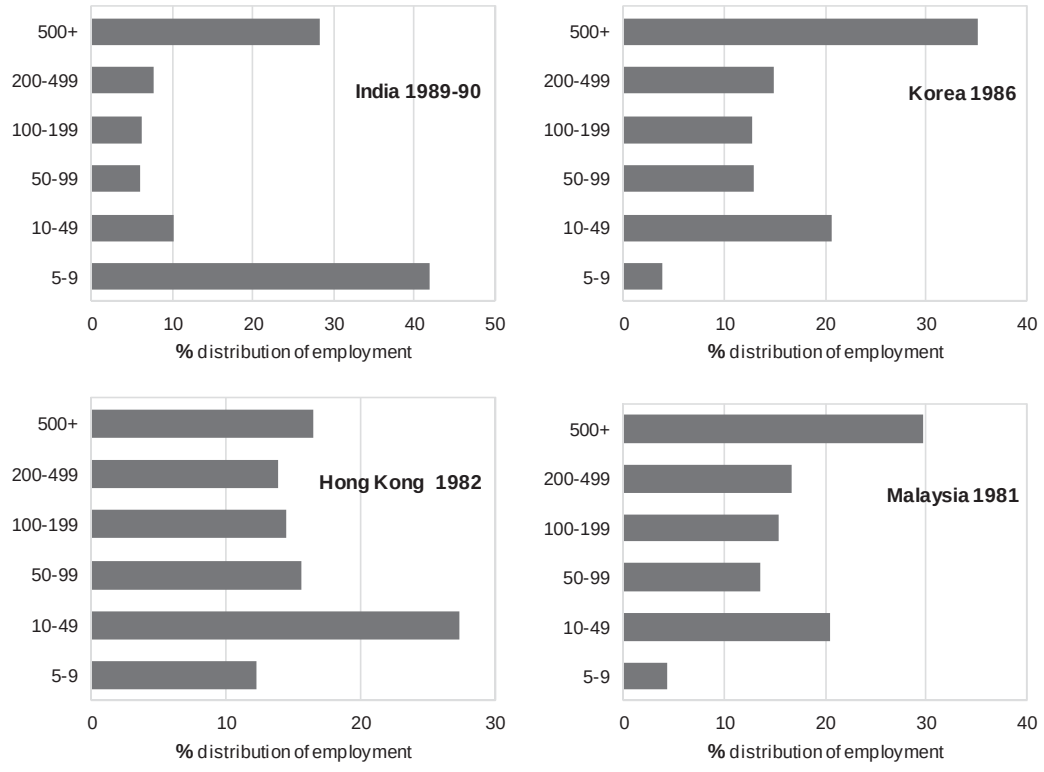
Comparing manufacturing development in India with other Asian countries, two patterns emerge:

- A fairly even size distribution, in which small, medium and large firms plays more or less equally important roles and the productivity difference between different-sized firms is small. This might be called the "East Asian pattern" of industrialisation. Hong Kong is the classic example of this type, but Japan, Korea (after 1975) and Taiwan are close to this type.
- The pattern in which the distribution of employment by size groups is distinctly skewed to the large firms. Typically, in this pattern the productivity difference between large and small firms tends to be substantial (Malaysia is an example of this).

The material presented in Figure 4.A3.1 refers to the 1980s. But more recent data collected by the Asian Development Bank indicates that the patterns are remarkably unchanged for the countries considered in the first decade of this century (Asian Development Bank, 2009). Interestingly, China has joined the group, with, however, a skewed distribution to the large firm group.

Figure 4.A3.1. **The "missing middle" manufacturing firms**

India compared to other countries



Source: Mazumdar and Sarkar.

Annex 4.A4

Heterogeneity of labour in developing countries

When considering the impact of a minimum wage in developing countries, it is important to keep in mind that labour is more heterogeneous than in the developed countries, both in terms of its innate quality (or efficiency) and in terms of the employers who hire labour. This is bound to be so in economies in which modern technology is impinging on traditional modes of production. If a uniform wage is imposed in a labour market where the quality of labour and enterprises varies widely, then: *i)* employers would tend to employ the more productive labour, to the cost of lower quality labour, and *ii)* enterprises with higher productivity – often those with more modern technology and market power – would absorb the cost of the high minimum, while smaller, less productive enterprises would go under from the burden of high labour costs, if the minimum wage is effectively enforced. Both these effects will be regressive in terms of income distribution. Thus the paradoxical situation arises in which a minimum wage is often advocated by political interests that are advocates of high-earners. The classic case is of course South Africa during the apartheid era. The trade unions of white miners were in the forefront of demanding a high minimum wage for black workers, because it was pretty obvious that at the wage suggested the lower productivity black workers would not be competitive with white workers.

The heterogeneity of labour in less-developed countries is also the reason why there have been striking episodes in labour history where large increases in the minimum wage have had spectacular effects on employment. The classic case was sub-Saharan Africa, when an attempt was made after decolonisation in several countries to get away from the low-wage colonial system based on circulatory migrants by means of a sustained increase in the minimum wage. In the decade from the late 1950s to the mid-1960s, the minimum wage in the formal sector was increased at a spectacular rate, often approaching 10% per annum. The result was both negative growth in employment in the covered sector and a huge increase in the difference in earnings between the formal and informal sectors. Another example is Puerto Rico in the the 1950s, when the legal minimum wage of the US mainland was extended to cover the island's non-agricultural sector. Again, the impact of the wage increase on employment was dramatic. While real manufacturing output in the 1950-62 period tripled in Puerto Rico, employment grew by only 65%. A careful study of this period showed that the slow pace of growth in employment relative to the wage increase was not due to mechanisation or an increase in the capital-output ratio. It was due to a radical review of personnel policies, as firms sought to counter the impact of the minimum wage. Its source was the substitution of more efficient labour for less efficient labour, which could be achieved in practice in a short time through the rationalisation of the methods of labour deployment and utilisation.

Both these cases were clearly regressive in so far as the policy increased the wage levels of a privileged part of the labour force, and drastically reduced the opportunity of larger number of workers from the uncovered sector to obtain employment in the high-wage sector. As suggested by the Commission, a drastic increase in the minimum wage might have a similar regressive effect due to a redistribution of employment from less prosperous to more prosperous firms and from less efficient to superior labour.

Chapter 5

Better employment to reduce inequality further in South Africa

by

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This chapter explores two angles on labour markets and inequality in South Africa. Have changes in the labour market helped or hindered inequality and poverty alleviation, and have government social policies ameliorated or worsened this situation? Increasing labour participation in the 1990s combined with sluggish growth in labour demand and skill-biased technical change resulted in rising unemployment with new entrants, in particular, African women and the youth, making up the bulk of the unemployed. This rise in zero earners as well as increasing earnings inequality are shown to be the main drivers of South Africa's rising inequality. While there is little evidence that labour market institutions are particularly inflexible, they have not protected workers or facilitated dynamic adjustments. Access to education has increased remarkably with a large commitment of public resources. However, the quality of this education remains highly heterogeneous. Given South Africa's skills situation, this has made it hard for new participants to find employment. There is a need for further education reform that focuses on quality rather than access. Despite this bleak picture of the labour market, poverty has decreased, mainly due to an extensive expansion of social grants and increased provision of basic services.

Introduction

Creating jobs and reducing unemployment are key economic and social challenges in South Africa. This is explicitly recognised by the South African government which, under the policy framework known as the "Accelerated and Shared Growth Initiative for South Africa" (ASGISA), aims to halve unemployment by 2014 by removing a number of constraints on faster growth in output and employment. This report explores some of the linkages between growth, poverty, inequality and the labour market in post-Apartheid South Africa. The report takes a data-driven approach and relies heavily on rich household survey data for the period 1993 to 2008.

Two key mechanisms dominate debates over the relationship between inequality and growth. The first is the employment and remuneration behaviour of the labour market. Strong positive employment and real wage responses to economic growth are the major poverty-alleviating forces emanating from the performance of the private sector economy. The second mechanism is the inflow of fiscal revenue that growth makes available for active social policy and poverty alleviation. This report explores both of these mechanisms, the first in Sections 5.1, 5.2 and 5.3 and the second in Sections 5.4 and 5.5.

Section 5.1 provides an empirical overview of the post-Apartheid labour market. The working-age population (*i.e.* the number of persons aged 16 to 64) increased from 23 million in 1995 to 29 million in 2008. At the same time, the labour-force participation rate increased from 49% to 55%. These two reinforcing factors resulted in an additional 5 million people entering the labour market over this period. As a result, the respective shares of Africans, young people, and women increased considerably. Participation rates rose most dramatically for the less-skilled, as African females began to engage with the post-Apartheid labour market and rectify their very low participation rates typical of the Apartheid years. The sharp increase in unemployment in the 1990s was driven by this rapid rise in the supply of less-skilled labour, accompanied by a failure of labour demand to keep pace. Skill-biased technical change exacerbated the problem.

Section 5.2 shows that this labour market performance was central in the worsening of aggregate inequality and also in dampening the poverty-reducing impacts of economic growth. Against this context, Section 5.3 presents and evaluates the labour laws and labour market institutions of the post-Apartheid labour market. On aggregate, these institutions have not promoted effective adjustments in the labour market or facilitated a reduction in inequality.

Why then has aggregate poverty fallen? Sections 5.2 and 5.4 confirm that this is not due to the labour market. A large and rising number of the unemployed live in households where no household member is employed. In addition, rising earnings inequality among the formally employed has resulted in a situation in which there has been declining earnings support to the unemployed from household members who are employed in low-skilled occupations. Section 5.4 explores social policies and shows that it is the expansion of social grants that has been central to poverty alleviation. Section 5.5 takes this further by describing the ambitious and strongly re-distributive social expenditure programme. Aside from social grants, there have been steady improvements in access to services such as electricity, water and housing. However, a number of these social expenditure programmes have been less effective than they could have been in delivering services to the poorest South Africans. The section shows this with regard to education and health policies where adequate expenditure flows have not translated into improved education,

training and health services. The labour market is demanding an increasingly skilled and productive workforce, yet the weakness of South African human capital policies is limiting opportunities for those who were particularly disadvantaged by Apartheid and leaving them poorly equipped to face the future.

Aside from education and training, a menu of labour market policy options are raised and evaluated in the report. The unemployment insurance fund is discussed in Section 5.4. It is directed at providing income support for the unemployed. However, it is designed for those who have been employed and are frictionally unemployed. This is not the situation of the bulk of South Africa's unemployed and, as such, the fund has limited potential to make a difference on a large scale.

An expanded public works programme has been given prominence by government as a direct employment creation intervention. The analysis in Section 5.4 shows that the programme has geared up substantially since 2004 but that it is not yet operating at the scale to make a substantial difference. To the extent that it moves to scale by entering into markets for the labour-intensive provision of infrastructure and community services, it begins to interact with regular public sector employment. This makes it imperative to target new entrants into the labour market and to ensure that they are not crowded out by employment switching within the employed.

Even though young new entrants into the labour market are better educated than the older employed, the report highlights the difficulty that new entrants face in finding jobs and gaining entry into the labour market. A number of policies have been proposed to facilitate a better matching of the demand for labour and the supply of labour. The unemployed often live far from jobs, and transport is expensive. This raises the job search costs for those least able to afford it. Improvements in housing and transport will clearly generate a high return. The fact remains though that formal-sector employers seem reticent to hire new workers in the current labour market milieu, and many of the unemployed are unlikely to be absorbed into formal-sector jobs at the going wage even if their transport costs are reduced. A wage subsidy that lowers the costs to employers of hiring new entrants has been proposed as a way to address this. Some versions of this wage subsidy policy provide for an easing of hiring and firing regulations. The government has shown a willingness to test such policies on a small scale through policy trials.

This willingness to experiment is to be endorsed. Proposals such as wage subsidies and special regulations for new entrants highlight the need for a discussion of the appropriateness and helpfulness of South African labour legislation. This legislation is reviewed in Section 5.3. The empirical evidence is not definitive in supporting the argument that the labour market is inflexible and that wage bargaining processes have had strong negative consequences for employment. However, it is equally true that the country has derived very few positive benefits from its labour legislation. On aggregate this matrix of legislation has done little to assist with flexibility and adjustment. Employers complain of high costs associated with the labour relationship (hiring, training and, if necessary, firing labour). Increased casualisation of formal-sector work and the increased use of agencies that provide temporary workers imply that employers have adjusted their behaviour to circumvent many of the legislated processes in response to their perceived costs. Moreover, other than in the public sector, there has been a substantial fall-off in participation in the bargaining councils that are at the core of South Africa's sectoral bargaining system. The same is true of membership in the trade unions

that, within the legislation, play a central role at the level of both the sector and the plant. All in all a review of our labour legislation would be timely.

An alternate employment strategy would be to facilitate the growth of the self-employed in the formal and informal sectors. Although there has been some growth of the informal sector, it has not been particularly responsive to rising unemployment. This seems to suggest that there are impediments preventing the participation of more of the unemployed in informal activity. Thus, potentially, the removal of these impediments through policy interventions could provide relatively quick results. It is clear that informal employment overall is associated with lower wages and worse working conditions than in the formal sector. However, informal employment could improve the lives of those who are without work and earning no wage income.

5.1. Growth patterns and labour market outcomes

Economic growth and inequality

South Africa's economy has undergone radical changes since the fall of Apartheid and the first democratic elections in April 1994. Economic growth stagnated during Apartheid due to sanctions on international trade and investment, uncompetitive local industries, rigid exchange controls, restricted skills development and high levels of poverty and inequality (Aron *et al.*, 2008). After the first democratic elections, economic sanctions were dropped, labour restrictions were lifted and policies were put in place to advance the interests of African workers, who had been marginalised for many decades. Economic growth has increased steadily both in real and per-capita terms, although perhaps not as much as was initially expected. Table 5.1 below illustrates how real GDP grew by almost 3% per year, while GDP per capita increased by 1.2% between 1993 and 2008. GDP growth decreased in 2008, most likely as an effect of the global financial crisis.

Table 5.1. **South Africa's annual economic growth, 1993-2008**

At constant 2005 prices

	GDP (million ZAR)	GDP growth	GDP per capita	GDP per capita growth
1993	1 065 830	1.2	28 227	-0.9
1997	1 214 768	2.6	29 582	0.5
2001	1 337 382	2.7	30 024	0.8
2005	1 571 082	5.3	33 176	3.9
2008	1 814 521	3.7	36 950	2.5
Average 1993-2008	1 400 717	3.1	31 592	1.4

Source: South African Reserve Bank.

Growth in GDP has consistently outpaced population growth post-1994. Real GDP grew by 68% between 1993 and 2008, while the total population grew by 22%. This resulted in GDP per capita growth during the same period of 36%. Population growth started to decrease from 2000, most likely due to the spread of the HIV/AIDS pandemic.

Unfortunately this economic growth has not been equitably distributed throughout the population, making the per capita figures an inaccurate reflection of the change in well-

being for the poorest segment of the population. As shown in Section 5.2, while there has been some improvement in measured poverty over the post-Apartheid period, inequality has worsened. The rest of this section goes on to detail the performance of the post-Apartheid labour market in order to understand why it has not mediated better social outcomes from the solid macroeconomic performance.

Composition of the labour market

Labour-force participation

The first question to ask is, "who is in the labour market?". In 2008, South Africa had a population of 48,687,036 and a total labour force of 16,753,618 people. Labour-force participation has increased steadily between 1993 and 2005, with a sharp drop between 2005 and 2008. The level of participation in the labour market is still relatively low by international standards, at 55% in 2008. The world labour-force participation rate for 2008 was 64.1% while that for sub-Saharan Africa was 70.8% (ILO, 2008). Figures for the OECD countries were similar in 2008 at 70.8%, with 80.5% for men and 61.3% for women. This comparison also suggests that South African labour-force participation rates are particularly low for men.

The increase in labour-force participation has been particularly marked for women. While male participation rose by 10% between 1993 and 2008, female participation rose by 38% (Table 5.2). Kingdon and Knight (2008) report this as being a result of higher education levels, loss of male employment and HIV/AIDS mortality and a greater number of female-headed households. Globally, particularly in developing countries, there has been a trend towards greater female labour-force participation due to an increase in human capital in the form of improved educational attainment (ILO, 2008). Despite this increased participation for women, men are still consistently more likely to participate in the labour market. This differential is to be expected, as women continue to exit the labour market to become mothers, caregivers and homemakers.

Table 5.2**. South Africa's labour force participation rates, 1993-2008**

	Total	Male	Female
1993	49.1	61.0	39.0
1997	47.0	57.1	37.7
2001	57.8	65.6	50.5
2005	58.4	66.1	51.4
2008	55.2	67.0	53.8
Change 1993-2008 (in %)	12.4	9.8	37.9

Source: Project for Statistics on Living Standards and Development (PSLSD), 1993; October Household Survey (OHS), 1997; Labour Force Survey (LFS), 2001, 2005; National Income Dynamics Study (NIDS), 2008.

Labour participation for workers over the age of 30 has remained relatively stable over time, although there have been relatively high increases among the youth (Table 5.3). Globally, there has been a trend of decreasing labour-force participation among the youth, as more people stay in school longer and delay their entrance into the labour market. In South Africa, grade attainment (defined as the highest school grade passed) for the youth, particularly Africans, has increased markedly since 1994, while years in school has increased only marginally. Therefore there has been little change in

the delay in labour market entrance due to increased education. The large increase in youth participation suggests instead that either the youth are becoming less "discouraged" and actively seeking employment (perhaps due to their increased education levels), or youth who previously did not enter the job market are increasingly choosing to do so. The South African Schools Act No. 84 from 1996 enforces maximum age limits for each school grade. This could result in a cohort of youth who are old for their grade being forced to leave school and enter the job market, whereas previously they may have remained in school. The data suggests that this may be true, since the main increase in youth participation occurred after 1997. Participation also appears to have increased markedly after 1997 amongst those who failed to complete their secondary schooling, further reinforcing the idea that students are leaving school and entering the labour force after they become too old for their particular grade. Participation rates appear to increase with increased levels of education (Table 5.4). Potential workers with lower levels of education are possibly more likely to become "discouraged", stop looking for work and be excluded from the labour-force definition.

Table 5.3. **South Africa's labour participation rates by age category, 1993-2008**

	16-24	25-54	55-64
1993	23.4	65.3	39.7
1997	22.0	61.9	32.3
2001	33.3	73.4	41.4
2005	34.0	73.7	42.7
2008	33.6	68.6	41.3
Change 1993-2008 (in %)	43.6	5.1	4.0

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Table 5.4. **South Africa's labour participation rates by educational level, 1993-2008**[a]

	None	Primary	Secondary (incomplete)	Secondary (grade 12)	Tertiary
1993	45.2	45.9	42.8	62.6	81.0
1997	37.0	42.8	39.7	61.0	82.4
2001	45.7	53.2	50.2	71.9	85.8
2005	44.2	52.9	50.6	71.8	85.5
2008	42.9	50.9	48.0	64.5	80.5
Change 1993-2008 (in %)	-5.1	10.9	12.1	3.0	-0.6

a) Education is classified as follows: "none" includes crèche and pre-primary school as well as those with no education at all; "primary" includes those who have completed grades 1 to 7; "secondary-incomplete" includes those who have completed grades 8 to 11 (including those who have an additional diploma or certificate) or National Technical Certificate (NTC) 1 or 2; "secondary" includes those who have completed grade 12 or NTC 3, and "tertiary" includes those who have completed grade 12 and have an additional diploma or certificate, have attended some university courses or have a degree or higher.

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

The labour force is also becoming increasingly African (Table 5.5). While labour-force participation for Africans still remained the lowest of all the population groups in 2008, it has increased the most since 1993. This increase is likely to be correlated with an

increase in educational attainment for Africans during the same period. After the large increases in labour-force participation up to the early 2000s, there was a notable drop in participation rates between 2005 and 2008 across all race groups. This recent drop is perhaps a consequence of increasing levels of long-term unemployment leading to withdrawal from the labour force.

Table 5.5. **South Africa's labour participation rates by race, 1993-2008**

	African	Coloured	Indian	White
1993	42.9	63.2	57.4	68.7
1997	42.3	59.2	56.3	63.6
2001	54.7	65.4	64.1	70.2
2005	55.9	65.6	64.4	69.2
2008	53.9	56.8	60.7	64.3
Change 1993-2008 (in %)	25.6	-10.1	5.7	-6.4

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Unemployment

Unemployment in South Africa has risen since 1993, and only began to fall in the latter part of the 2000s. Kingdon and Knight (2008) attribute this rise to increasing labour-force participation, sluggish economic growth and labour market inflexibility during the period. They also attribute the decrease in more recent unemployment rates to higher economic growth and lower population and labour-force growth, due in all likelihood to the effect of AIDS deaths on the country. Between 1995 and 2002 (a period of particularly high unemployment growth), employment growth was actually higher than the growth in the working-age population, suggesting that labour-force growth is indeed responsible for the rise in unemployment (Burger and Woolard, 2005). Banerjee *et al.* (2008) emphasise that due to the structural nature of unemployment, it is unlikely to improve in the future without policy interventions.

South Africa exhibits particularly high rates of unemployment. As can be seen in Table 5.6, unemployment reached a high of 29% in 2001 and was still sitting at 23% in 2008 (according to the official definition). The unemployment rate rose by 3 percentage points between 1997 and 2008, the brunt of this increase being born by women. These rates are derived using the official definition of unemployment (also referred to as the narrow definition), which only considers as unemployed those who have actively searched for work in the last four weeks and are able to accept a job within the next week. All other "discouraged" workers (who would like to work but are not actively seeking work) are classified as not economically active. The broad definition includes as unemployed all those who would like to work (regardless of whether they actively sought work). The difference between the broad and narrow rates are fairly substantial, often exceeding 10 percentage points, meaning that there have historically been very high numbers of discouraged workers. However, the gap between the narrow and broad rates has narrowed dramatically more recently, as the level of broad unemployment appears to have dropped substantially between 2005 and 2008. As alluded to in the earlier discussion of participation patterns, a substantial number of the broad unemployed appear to have withdrawn from the labour market over this period.

Table 5.6. **South Africa's unemployment rates, 1993-2008**[a]

	Narrow definition			Broad definition
	Male	Female	Total	
1993	11.9	15.8	13.6	31.2
1997	17.3	26.5	20.5	36.1
2001	25.3	33.3	28.9	40.8
2005	22.2	31.3	26.4	38.3
2008	17.1	30.1	23.4	28.9
Change 1997-2008 (in %)	-1.2	13.6	14.1	-19.9

a) The PSLSD narrow definition is smaller than expected since respondents are asked only whether they have looked for work in the past week, as opposed to the last four weeks in the other sources used.

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

The youth in South Africa also suffer from very high unemployment rates, as can be seen in Table 5.7. This rate increased considerably for the 25-54 age group between 1997 and 2008, with the most marked rise occurring amongst those 21 to 30 years old. When birth cohorts are analysed trends in unemployment across the age groups are fairly stable, suggesting that the increase in youth unemployment is a result of new labour-force participants battling to gain entry into the labour market (Burger and Woolard, 2005). In 1993, 51% of the unemployed reported never having had a job before, while in 2008 the figure was 59%. These percentages are likely to comprise the vast majority of the unemployed workforce under age 30.

Table 5.7. **South Africa's unemployment rates by age group, 1993-2008**

	16-24	25-54	55-64
1993	29.9	11.2	5.5
1997	39.9	18.9	7.3
2001	53.6	25.2	10.9
2005	51.6	22.8	8.5
2008	39.4	21.5	6.8
Change 1997-2008 (in %)	-1.3	13.8	-6.8

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

The labour market in South Africa suffers from a history of unequal access to jobs and labour discrimination. Unemployment was formerly much more prevalent amongst the African and Coloured population, while Whites enjoyed much higher levels of employment (Table 5.8). One area where this race differential was most prominent was government administration, where all but the most menial jobs were reserved exclusively for Whites. In the economy in general, skilled jobs were reserved for the White population, while the African labour force earned lower wages in relatively unskilled jobs. Thus the African population previously suffered not only relatively higher levels of unemployment, but lower wages for those that were employed. Table 5.9 shows the change in real wages over time by race.[1] Although African wages grew relatively quickly over time, they were still lower than all other race groups in 2008. In 1993, Whites earned on average 5.1 times more than Africans. Although this figure drops over time, in 2008 Whites still earned 4.4 times more than Africans on average. This is probably mainly due to the skills differential between races, which is still an exclusionary factor for Africans entering higher paid professions.

Table 5.8. **South Africa's unemployment rates by race, 1993-2008**

	African	Coloured	Indian	White
1993	17.0	15.7	8.3	3.2
1997	27.1	15.2	9.8	3.9
2001	35.1	21.1	18.7	5.6
2005	31.1	22.3	15.6	4.9
2008	27.0	17.3	6.6	10.3
Change 1997-2008 (in %)	-0.4	13.8	-32.7	164.1

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Table 5.9. **South Africa's average monthly wage by race, 1993-2008**

At South African Rands constant 2008

	African	Coloured	Indian	White
1993	2 104	3 382	5 421	10 803
1997	2 969	3 017	5 270	9 508
2001	2 588	3 834	6 315	11 162
2005	3 118	4 381	6 940	12 026
2008	2 576	3 362	7 350	11 240
Change 1993-2008 (in %)	22.4	-0.6	35.6	4.0

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Despite policies such as affirmative action, which attempt to redress the unequal distribution of employment by race, African unemployment increased and only started to drop after 2001, thus unemployment levels in 2008 are similar to levels in 1997. The increase in unemployment for the White population is striking, although the sharp rise between 2005 and 2008 is implausible and more likely a result of difficult sampling of Whites across surveys.

During Apartheid, the African population was largely confined to tribal "homelands" and urban townships. This practice contributed to a spatially segregated workforce. The three largest homelands (Transkei, Ciskei and Venda) are now included in the Eastern Cape and Limpopo provinces. This legacy can still be seen in provincial unemployment rates (Table 5.10), as the highest rates by far in 2008 were in the Eastern Cape and Limpopo. There has, however, been a convergence to higher unemployment rates in all provinces, with a greater deterioration of the provinces that were previously faring better. In 1997, the highest provincial unemployment rate (Eastern Cape) was 2.5 times that of the lowest (Western Cape). By 2008, the highest (Limpopo) had dropped to twice the level of the lowest (Western Cape). During this period KwaZulu-Natal was the only province to exhibit a drop in unemployment rate (-11.4%) while the Free State experienced the highest rise in unemployment (53%). Labour market dynamics are thus not homogeneous across the provinces, and in fact the differences between provinces can be quite pronounced.

Table 5.10. **South Africa's unemployment rates by province, 1993-2008**

	Western Cape	Eastern Cape	Northern Cape	North West	KwaZulu-Natal	Mpumalanga	Limpopo	Gauteng	Free State
1993	13.7	28.5	27.3	6.8	13.3	11.7	16.4	11.0	7.8
1997	11.8	28.7	18.4	21.1	22.8	23.3	25.7	21.4	18.8
2001	17.5	30.1	24.5	28.1	33.3	28.6	34.0	30.1	26.6
2005	18.8	29.3	24.4	27.0	32.3	26.6	29.7	22.5	30.0
2008	14.3	32.8	19.8	26.5	20.2	23.5	33.0	21.8	28.8
Change 1997-2008 (in %)	21.2	14.3	7.6	25.6	-11.4	0.9	28.4	1.9	53.2

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Not only does South Africa exhibit high levels of unemployment, but much of it is long-term. Long-term unemployment, defined as being unemployed for longer than a year, is prevalent mainly among the youth. In 2004, 67% of South Africa's unemployed were unemployed on a long-term basis. By 2007, this figure had dropped to just over 50%, as opposed to around 30% in the OECD countries (OECD, 2008). A high level of long-term unemployment generally means that the economy is not capable of creating sufficient jobs to support the working-age population. However, the fact that in South Africa many skilled sectors are having difficulty in filling certain positions and that unemployment is structural in nature also contributes to long-term unemployment (Department of Trade and Industry, 2004). Unless South Africa manages to address its skills shortage, long-term unemployment will remain a dominant characteristic of the country's labour market.

Educational links

The highest rates of unemployment were formerly reserved for those with only a primary school education, whereas more recently those who have attended high school but failed to attain their grade 12 certificate are the most at risk. Even the better-educated workforce appears to be subject to an increasing unemployment risk over time. Unemployment has decreased between 1997 and 2008 for those with little education, likely as a result of decreasing labour-force participation among this group. However, unemployment has increased markedly for the better educated, with a particularly high increase of 98% for those with a tertiary education (Table 5.11). The increased unemployment levels of the better educated is the consequence of higher unemployment rates among the (relatively better educated) youth.

This relative increase in unemployment for the better educated does not indicate a shift in the demand for labour towards the less educated. Rather, the less-educated groups make up declining shares of the labour force and sharply declining shares of new entrants. Table 5.12 shows how the employment share for the less educated decreased between 1997 and 2008, while the share for the better educated was increasing. Jobs for those with a tertiary education increased by 35% while jobs for those with no education decreased by 24%. There were an additional 2.6 million jobs since 1993 for workers with at least a grade 12 qualification, and about 770 000 fewer jobs available for those with a primary education or none at all (Table 5.13). Those who failed to complete high school comprise the largest share of employed across all years, but this has more to do with this category accounting for the majority of the working-age population than a greater demand for this education level in the labour market. The high cost of labour relative to capital has resulted in a production shift away from unskilled labour, where South Africa does not have a comparative advantage, and towards more skilled and capital-intensive production (Banerjee *et al.*, 2008).

Table 5.11. **South Africa's unemployment rates by education, 1993-2008**[a]

	None	Primary	Secondary (incomplete)	Secondary (grade 12)	Tertiary
1993	10.5	17.0	16.2	12.7	2.0
1997	18.3	25.6	24.2	21.5	6.3
2001	20.2	28.9	36.4	30.4	11.1
2005	17.1	26.4	33.3	28.0	7.7
2008	16.9	20.7	30.2	25.0	12.5
Change 1997-2008 (in %)	-7.7	-19.1	24.8	16.3	98.4

a) Education is classified as follows: "none" includes crèche and pre-primary school as well as those with no education at all; "primary" includes those who have completed grades 1 to 7; "secondary-incomplete" includes those who have completed grades 8 to 11 (including those who have an additional diploma or certificate) or National Technical Certificate (NTC) 1 or 2; "secondary" includes those who have completed grade 12 or NTC 3, and "tertiary" includes those who have completed grade 12 and have an additional diploma or certificate, have attended some university courses or have a degree or higher.

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Table 5.12. **South Africa's employment share by education, 1993-2008**[a]

	None	Primary	Secondary (incomplete)	Secondary (grade 12)	Tertiary
1993	12.0	26.3	33.1	16.1	12.5
1997	8.5	21.3	33.1	22.8	14.3
2001	7.6	23.9	29.8	23.9	14.8
2005	6.2	19.4	31.9	27.3	15.2
2008	6.4	17.5	33.2	23.6	19.3
Change 1997-2008 (in %)	-24.7	-17.8	0.3	3.5	35.0

a) Education is classified as follows: "none" includes crèche and pre-primary school as well as those with no education at all; "primary" includes those who have completed grades 1 to 7; "secondary-incomplete" includes those who have completed grades 8 to 11 (including those who have an additional diploma or certificate) or National Technical Certificate (NTC) 1 or 2; "secondary" includes those who have completed grade 12 or NTC 3, and "tertiary" includes those who have completed grade 12 and have an additional diploma or certificate, have attended some university courses or have a degree or higher.

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Table 5.13. **Job creation in South Africa by education, between 1993 and 2008**

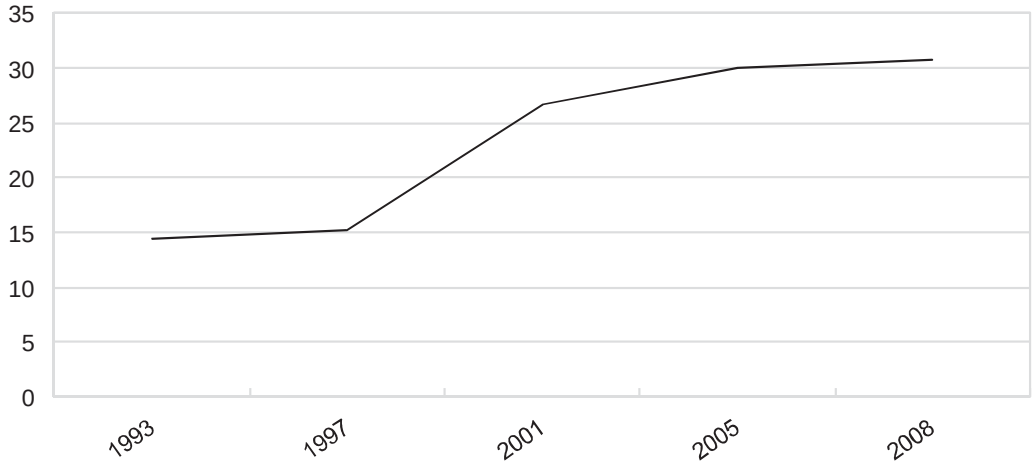
	None	Primary	Secondary (incomplete)	Secondary (Grade 12)	Tertiary
Job creation	- 380 414	- 392 005	919 923	1 394 167	1 199 989
Change (in %)	-31.9	-15	28	87.4	96.8

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Casual or part-time employment

Employers often cite strict labour legislation and an inflexible labour market as a business constraint, and many turn to hiring part-time or casual labour in order to avoid the "hassle factor" of permanent employment (Bhorat *et al.*, 2002).[2] These inflexibilities include the difficulty of hiring and firing labour, the need to adhere to bargaining council agreements, and labour laws that cover only permanent workers.[3] A sharp rise in casual and part-time work between 1993 and 2008 is shown in Figure 5.1. The drastic increase after 1997 in the use of part-time labour coincides with the implementation of the Labour Relations Act of 1995, the Employment Equity Act of 1998, and the Skills Development Act of that same year. This labour legislation is discussed in detail in Section 5.3 below. This data supports the argument that the implementation of firmer labour laws has resulted in an increase in the use of temporary workers and thus a fall in permanent, protected employment. This ultimately means that fewer workers are protected by legislation, and thus are likely to fall into unemployment far more easily.

Figure 5.1. **South Africa's share of part-time and casual employment in total employment, 1993-2008**



Source: PSLSD (1993), OHS (1997), LFS (2001), LFS (2005) and NIDS (2008).

This trend in the use of part-time labour not only indicates a decrease in the use of workers' full productive capacity, but also has implications for inequality. The rise in casual labour has occurred predominantly among the African population, where the share of part-time employment more than doubled, as opposed to an increase of only 22% among the White population. This may be explained by the fact that part-time labour generally involves workers with lower levels of education. In short, the proportion of the African employed population that is fully utilising their productive capacity and also enjoying the benefits of protective labour legislation is falling rapidly.

The informal sector and barriers to employment

Not all jobs are created equal, and many fall outside what would be defined as the "formal" sector. Informal jobs are defined here as those within a business that is not registered, in addition to all domestic workers.[4] Workers operating within the informal sector are not offered the rights and protections enshrined in South African labour law, and thus are open to exploitation in terms of wages, hours, leave, etc. The informal sector is generally considered the last preserve of the unemployed, for the reasons stated above. Considering the extent of unemployment in South Africa, one would expect the informal sector to be fairly large, while in reality it is relatively small by international standards. Informal employment is much higher for females than for males, most likely as a result of females involved in domestic work, but at 34% and 20% in 2008, respectively, the levels for both are relatively low (Table 5.14).

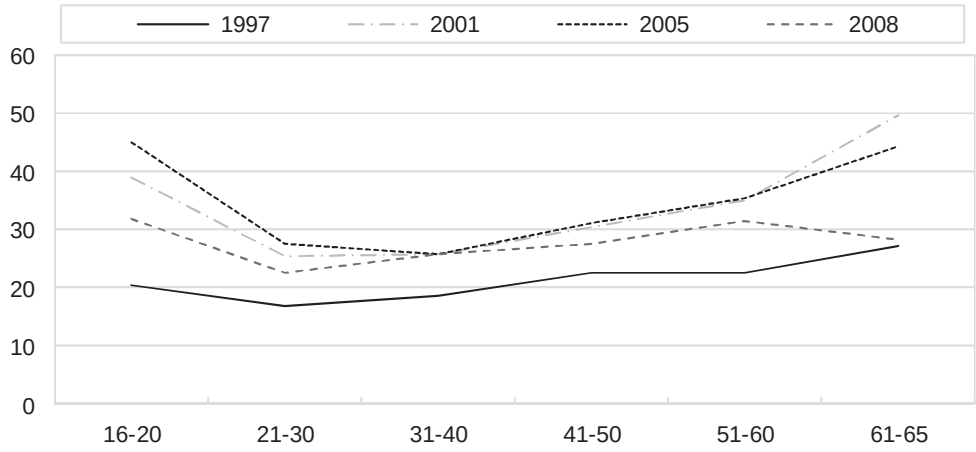
Table 5.14. **South Africa's share of informal employment by gender, 1997-2008**

	Total	Male	Female
1997	19.8	15.3	26.9
2001	29.4	21.8	39.8
2005	30.2	23.0	39.9
2008	26.2	20.2	33.8
Change 1997-2008 (in %)	32.3	32.0	25.7

Source: OHS (1997), LFS (2001, 2005, 2008).

If unemployment rates are high but the unemployed workers are still not entering the informal sector, this implies barriers to entry of some kind. Informal workers face similar problems with low labour demand, as do workers in the formal sector. Informal entrepreneurship, however, must face some other barriers to entry.[5] Capital and experience are cited as common barriers to entrepreneurship (Maloney, 2002), and are likely to be problematic areas for the South African unemployed. While it is known that access to capital for the poor is very low in South Africa, age appears to be less of a factor for entrance into the informal sector. Figure 5.2 illustrates how, as expected, employment in the informal sector increases with age, except for the 16-20 age bracket. Across all years and surveys, this age bracket exhibits markedly higher rates of informal employment compared to other ages. This could be a symptom of the high rate of unemployment for this particular age group, as the unemployed youth resort to informal-sector activities. The condition of the youth labour market is therefore even worse than the 41% unemployment rate for this group would lead us to believe, since over 30% of the employed youth were in the informal sector in 2008, leaving less than 29% of the youth labour force formally employed.

Figure 5.2. **South Africa's share of informal employment by age group, 1997-2008**



Source: OHS (1997), LFS (2001, 2008).

As can be seen in Table 5.15, Africans have had higher proportions of employed workers in the informal sector across all years. In 2008, the proportion of employed Africans working in the informal sector was sitting at around 33%, by far the highest of all the race groups. This could, of course, have more to do with higher unemployment rates amongst Africans when compared to the other races. The dominance of Africans in the informal sector does have inequality implications, as wages are generally much lower. The average wage in the informal sector in 2005 was USD 203 per month, while the average wage for the formal sector was 3.5 times higher at USD 715 per month.[6]

Table 5.15. **South Africa's share of informal employment for each racial group, 1997-2008**

	African	Coloured	Indian	White
1997	26.1	13.4	6.1	7.2
2001	36.7	18.4	8.2	6.5
2005	37.1	14.0	7.6	5.0
2008	33.4	16.2	8.7	5.0
Change 1997-2008 (in %)	28.0	20.9	42.6	-30.6

Source: OHS (1997), LFS (2001, 2005, 2008).

Kingdon and Knight (2008) reiterated the findings of Bhorat *et al.* (2001) that stringent labour laws raise the cost of labour for small firms, creating a barrier for entry into entrepreneurship activities. Of course, these restrictions should not prove to be a significant impediment to entrepreneurial activity in the informal sector, which often operates outside of the sphere of regulations. Kingdon and Knight (2008) additionally proposed that entrepreneurship amongst Africans is stifled by the legacy of Apartheid, as informal enterprises were often heavily deterred or clamped down on in terms of racial segregation, strict zoning and restrictive by-laws.[7] Geographically, Africans still find themselves located relatively far from business centres, mainly in rural areas and informal townships.

Kingdon and Knight's (2008) hypothesis finds some support in the low self-employment rate amongst Africans in 1993 when compared to other races (Table 5.16). In 2008, African self-employment was still lower than that for White workers, by roughly the same margin as earlier, although it had increased rapidly for both.[8] Coloured workers started out at roughly the same self-employment rates as Africans in 1993, which is to be expected as they were largely subject to the same laws, but by 2008 had increased by only about half the rate of Africans. This is likely to be a result of lower unemployment rates for the Coloured labour force.

Table 5.16. **Self-employment rates in South Africa by race, 1993-2008**

	African	Coloured	Indian	White
1993	1.9	1.1	3.0	7.8
1997	9.8	3.5	13.7	15.9
2001	10.6	4.8	12.1	20.6
2005	12.9	3.9	15.3	18.5
2008	10.9	5.9	20.1	17.7
Difference 1993-2008 (percentage points)	9.0	4.8	17.1	9.9

Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

In summary, despite unemployment being very high, informal entrepreneurship remains underutilised, particularly in comparison to other developing countries. Data at the firm level often suggest that labour legislation and an inflexible labour market dominated by trade unions are considered by entrepreneurs to be barriers to formal self-employment. It has been proposed that barriers to entry into informal entrepreneurship exist, such as low access to capital, lack of business experience and crime. Workers under the age of 20 exhibit higher participation in the informal sector, possibly because the barriers to formal employment are higher than for other age groups, as evidenced by very high youth unemployment rates. The labour market in this age group is in an even more critical state than previously outlined, since not only is youth unemployment high, but of those employed more than 30% are in informal employment. There also does not appear to be much evidence for the hypothesis that Africans do not enter self-employment due to the legacy of Apartheid. More likely deterrents are low levels of human capital and a lack of access to the capital necessary for entrepreneurship.

Conclusion

This section has highlighted a number of key characteristics and dynamics of the labour market. Firstly, labour participation has increased rapidly since 1993, especially for Africans, women and the youth. This increase in labour supply was not met with similar increases in labour demand, thus unemployment has also risen since 1993, particularly for the groups already mentioned. Given that labour-force participation is still relatively low in South Africa, by international and developing country standards, there is still potential for further growth in the labour supply, particularly if employment picks up and discouraged job seekers start to actively seek work. Unemployment also appears to be rising rapidly for the better educated. This is due to the fact that better-educated youth form the dominant share of new entrants into the labour market. Job creation remains much higher for those who have completed a high school or tertiary education. There is still a large differential in wages and unemployment by education and between races, particularly between Africans and Whites.

Given that employment is the main bridge between economic growth and higher living standards, a positive employment environment is the key requirement for sustainable social transformation in South Africa. Reductions in unemployment will depend critically on growth induced increases in labour demand and on the supply of a well-educated labour force with the necessary skills to fill the jobs that are created. Given that the South African economy has moved into financial services and other service sectors, and agriculture is on the downswing, there is a growing shift towards a higher demand for skilled workers. Skill-biased technical change is, of course, a global phenomenon and is unlikely to be reversed. This section has shown that the employed have become more educated over the last fifteen years. Many of the unemployed with low levels of education are unlikely to be absorbed into formal-sector jobs and require specific interventions, such as public works programmes (discussed in Section 5.4).

Other than government employment, there are a range of policy options that merit serious consideration and debate. For example, strategies to assist the youth in obtaining their first job might include a wage subsidy, a search subsidy and reduced regulations for first jobs. Policies like these received endorsement from the Harvard Group report (Banerjee *et al.*, 2008; Levinsohn, 2008), and a number of these options are under consideration. All of these policies are premised on some kind of failure in the market for youth employment, and as such will require careful design. A wage subsidy is worthy of consideration if the level of entry wages for youth proves to be an important cause of youth unemployment. A subsidy for employers would correct a situation in which these wages are too high from the employer's point of view but it would be socially sub-optimal for these wages to be adjusted downwards. This is a hard argument to make, and such a subsidy would be hard to target. A search subsidy is premised on the argument that many unemployed are prevented from pursuing optimal job search strategies because of credit constraints. Easing the regulations, such as making it easier for employers to hire and fire new entrants, is premised on the presence of serious information asymmetries that prevent an accurate assessment of the potential productivity of prospective employees. Concerns over the quality of education make a plausible case for such asymmetries. Given that all of these policies are built on behavioural responses by employers and employees, the willingness of government to experiment with these options on a small scale before large-scale implementation is to be endorsed.

Policy responses to the constraint of the mismatch between where the unemployed live and where formal-sector jobs exist might include transportation subsidies, housing policy and infrastructure investment. There is no doubt that the job-search costs are often highest for the poorest and, even though this consideration might not be the primary motivation for improved transport, housing and infrastructure, it is an important second-order benefit.

Policy responses to the constraint of the mismatch between the skills set of the unemployed and the skills required in the labour market might include educational reform, training programmes and training subsidies. These policies are discussed in detail in Section 5.5.

Facilitating the development of entrepreneurship represents an alternate employment strategy. Although entrepreneurship has grown to some extent, it has not been particularly responsive to rises in unemployment. This seems to suggest that there are impediments preventing the participation of more of the unemployed in entrepreneurial activity, whether formal or informal. Thus, potentially, the advantage of policy interventions in this sector is that gains could be seen relatively quickly. Increasing informal employment

is not an optimal outcome, as wages are lower and working conditions are worse than in the formal sector, but this would likely improve the lives of those who are without work and earning no wage income, at least in the short term.

That said, it is difficult to isolate specific impediments and targets for policy intervention clearly. It seems that any policy that improves the human and financial capital of the unemployed or lowers the costs of moving informal participants and/or their goods to potential markets or increases the security of informal work will improve the productivity of informal work and the returns to such work. Improving human capital involves education and health interventions. These are discussed subsequently in Section 5.5. Yet both types of intervention generate returns only in the long-run. Potential shorter-run improvements come from the cross-cutting impacts of policies as diffuse as credit market interventions, which enhance access to bank accounts and credit, and the housing, transport and policing interventions that were mentioned above with regard to the formally employed. These apply at least as strongly to the informally employed.

5.2. Labour market outcomes and trends in poverty and inequality: what links?

Introduction

Poverty and inequality in South Africa are inextricably linked with the labour market. This section draws on evidence from a related study carried out on trends in South African income distribution and poverty since the fall of Apartheid in order to provide evidence of the links between the changing post-Apartheid labour market milieu described in the previous section, and changes in household-level poverty and inequality. In the sub-section below, aggregate inequality and poverty trends are briefly presented. Sub-section on "Links to the labour market" goes on to look at the links between this situation and the labour market. Las sub-section concludes.

2.2. Inequality and poverty trends[9]

Census-based analyses reaching as far back as 1917 indicate that average real incomes have been steadily increasing in South Africa for all population groups. This trend has also persisted over the last 15 years according to work carried out on four household surveys, namely the Project for Statistics on Living Standards and Development (PSLSD), the Labour Force Survey (LFS), the Income and Expenditure Survey (IES), and the National Income Dynamics Study (NIDS). This income growth has not, however, resulted in a decline in South Africa's historically high levels of inequality. In fact, aggregate inequality measures have shown an increase in inequality over the post-Apartheid years. The rising aggregate Gini coefficients for 1993, 2000, 2005 and 2008 presented in Table 5.17 illustrate this point, and the evidence reviewed in Leibbrandt *et al.* (2010) shows the same trend using alternate data for other years.

Table 5.17. **Gini coefficients of per capita income, aggregate and by racial group, South Africa, 1993-2008**

	Aggregate	African	Coloured	Indian	White
1993	0.67	0.55	0.43	0.46	0.42
2000	0.67	0.61	0.53	0.50	0.47
2005	0.72	0.62	0.60	0.58	0.51
2008	0.70	0.62	0.54	0.61	0.50
Change 1993-2008 (in %)	4.50	12.7	25.6	32.6	19.1

Source: PSLSD (1993), IES (2000, 2005) and NIDS (2008).

Regarding inequality in general, income has become increasingly concentrated in the top income deciles at the expense of all other deciles. This discrepancy is reinforced by the fact that labour-force participation rates are highest in the top income deciles, which also have the highest labour absorption rates. This translates directly into far higher employment rates among those located in the top income deciles. Unemployment rates have fallen in the top deciles since 1993, especially after 2000. However, overall unemployment rates have tended to rise since 1993, due to sharply higher unemployment rates among those in the bottom four deciles. A breakdown of income sources identifies the labour market as the leading factor driving inequality.

While a decomposition of the income sources confirms the importance of rising unemployment as a key driver of inequality, it also emphasises the importance of rising inequality of earnings among households with access to labour market earnings. Earnings for those in the bottom deciles have not risen in real terms over the post-Apartheid period and have fallen markedly relative to those in the higher deciles. Having an earner with unskilled employment is no guarantee that a household will rise out of the lower deciles of the household income distribution.

For a country with a racially discriminatory past like South Africa, it is expected that the large and increasing income disparities outlined above would bear a strong racial footprint, and there is a tendency to attribute the country's unusually high aggregate inequality measures to strong income disparities between races. While it is true that the between-race component of inequality remains very high, when considering inequality between racial groups as a percentage of the maximum possible level, this measure declined by 21% from 1993 to 2008, with the largest decline occurring before the year 2000. As can be seen from the Gini coefficients for each racial group that are presented in Table 5.17, within-race inequality has increased markedly for all racial groups. By 2008, the most populous racial group, the African group, made up 80% of the population and had the highest inequality of the four major racial groups. The Gini coefficient was 0.12 points higher for Africans than for Whites. Thus, within-racial group dynamics have become more important and within-African dynamics have become especially important in driving aggregate changes in inequality.

In addition to racial inequality, in South Africa inequality by geotype (urban versus rural) has proven to be a leading theme in inequality studies. This bears a strong link to racial inequality, as zoning policies under the country's Apartheid government forced Africans, and thus predominantly poor people, to live in allocated rural homelands. Survey data reveals that urban inequality has in fact increased since 1993, whereas rural inequality seems to have fallen. This is generally linked to the prolific migration of rural dwellers to urban centres, thus increasing urban income discrepancies.

Table 5.18 presents evidence on poverty trends over the last 15 years, using two poverty lines. The headcount ratio for the two poverty lines is shown to have fallen over time, which is in line with much of the literature. This decline in poverty is more pronounced if poverty measures (such as the poverty gap ratio) that are sensitive to the depth of poverty are used. One notable difference between the picture of Table 5.18 and this literature is that other studies seem to indicate an improvement in poverty levels only after 2000. Thus, there is some contention over the timing of the poverty declines. There is no such contention with regard to changes in non money-metric well-being. In all analyses, access to services, formal dwellings and private assets were shown to improve in the period from 1996 to 2001 and then on through to 2008.

Table 5.18. **Poverty headcount ratios in South Africa, 1993-2008**

	Total population	USD 1.25 per day	USD 2 per day
1993	40 002 316	20.7	33.9
2000	45 134 247	18.2	30.8
2005	46 971 312	16.7	31.2
2008	48 687 036	17.7	30.0
Change 1993-2008 (in %)	21.7	-14.5	-11.5

Source: PSLSD (1993), IES (2000, 2005), NIDS (2008).

All the literature shows that the poverty incidence among Africans was and remains a lot higher than for Coloureds, which in turn is a lot higher than for Indians/Asians and lastly Whites. Combining this relative incidence with population shares, Africans account for more than 90% of the country's poverty share, with Coloureds making up the remaining share, with some nuances. In line with the declining national poverty rates, African poverty has also decreased over time. However, the Coloured poverty incidence is actually shown to have increased over the same period.

Then, in accordance with the change in urban/rural Gini coefficients pointed out earlier, rural poverty incidence barely changed over the last 15 years, whereas an increase in poverty was seen in urban centres. Unfortunately youth unemployment has increased over time and remains an important characteristic of the South African poverty scenario. Furthermore, the stubbornly high poverty incidence of one-worker households highlights the notion that not only employment levels are a fundamental concern, but the quality of support provided by employment is also a factor in the high incidence of poverty and inequality.

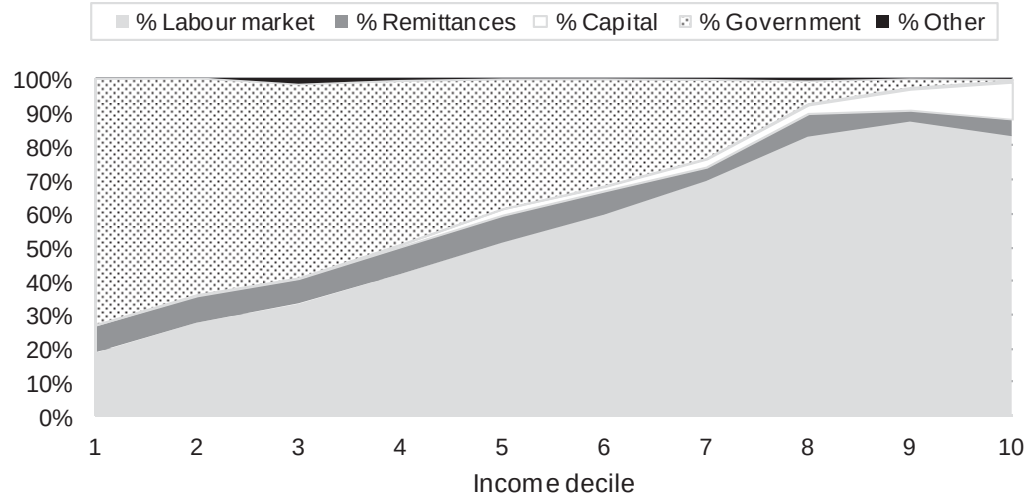
Poverty remains prevalent in households headed by persons with an education level of grades 10-12. This is an indication of a decrease in the demand for workers with this level of qualification. Leibbrandt *et al.* (2010) showed that, despite an increased unemployment risk for household heads with this educational level, these households have not become poorer over time. This highlights the presence of some alternative form of income, namely, social grants. In contrast to the major income source of wealthy households, the labour market, studies have shown that poor households receive most of their income from government grants. In addition, as one moves down the income deciles, the proportion of multiple-worker households decreases, and the proportion of no-worker households increases monotonically. This emphasises the increased reliance of poor households on state assistance.

Furthermore, the effectiveness of such assistance is revealed by the substantial decline in poverty incidence in two of the oldest age cohorts examined, those who are no longer considered a part of the labour market. In this case, the state old-age pension is shown to play an important role in poverty alleviation. Finally, childless households have become poorer over time in comparison with households with children. This signifies that the government's child grant programme has been instrumental in lifting households with children out of poverty. State transfers have been shown to have a neutral effect on aggregate inequality levels, because they provide sufficient support to households to move out of the bottom two deciles, clustering transfer recipients nearer the middle of the income distribution. Therefore, households at the bottom of the income distribution are those without access to labour market income or to grant income.

Links to the labour market

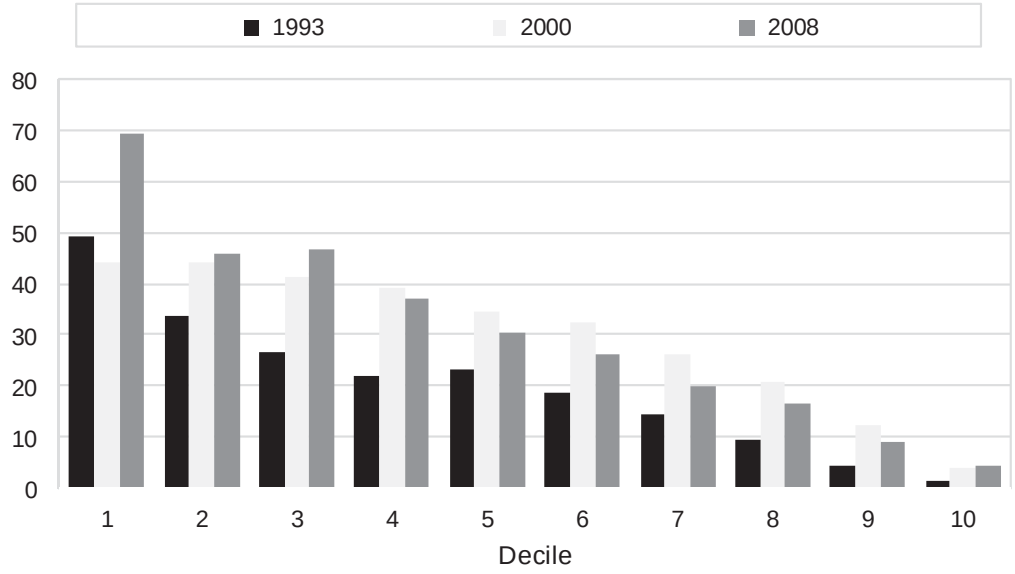
Figure 5.3 shows the share of income sources in total household income by income decile in 2008. The proportion of income derived from wages increases linearly by income decile. If a person is a member of a household situated in the poorest five deciles, they are likely to receive relatively little wage income and to depend quite heavily on government grants and subsidies. Figure 5.4 complements this picture by showing South African unemployment rates by decile for 1993, 2000 and 2008. The very high unemployment rates in the lower deciles fall as one move to higher deciles. As discussed, this unemployment situation has worsened between 1993 and 2008, especially in the lower deciles.

Figure 5.3. **South African income decomposition by decile in 2008**



Source: NIDS (2008).

Figure 5.4. **South African unemployment rates by income decile and by year**



Source: PSLSD (1993), LFS (2000) and NIDS (2008).

The major findings concerning poverty and the labour market are easy to discern from these two figures. While the presence of an employed person in a household is not a guarantee of being poor, lack of access to employment is a very strong marker of poverty. Despite strong overall economic growth in the post-Apartheid period, the labour market has not had a positive impact on poverty because of the failure to pull individuals from poor households into employment. The number of no-worker households has increased by 3% in the last 15 years, pushing up the number of households relying on assistance, especially child grants, as their main form of income. Indeed, in general, the improved aggregate poverty situation is due to increased support from social grants, and not from the labour market. Even in one-worker households, the poverty incidence remains high. This emphasises the point made earlier with regards to employment quality: having some form of wage income in a household does not guarantee that any individual in that household will not be poor. Finally, the difficulty in accessing wage income, despite a general increase in education levels, is partly reflected in the finding that the incidence of two-worker households has declined. While it is true that the high and increasing incidence of HIV/AIDS among the country's labour force has had a negative impact on the number of workers in some economically active age groups, the greatly increased participation rates in the labour market has more than offset this. Thus, the decline in the number of two-worker households has to be driven by the poor labour absorption of the South African labour market.

The poverty situation will be discussed in more detail in Section 5.4, while the rest of this section explores the inequality situation. Decompositions of formal income sources tease out key implications of Figure 5.1 for inequality. They show that the labour market plays a dominant role in driving inequality. For example, a decomposition of the Gini coefficient shows that, even though the average share of wage income in total income has remained relatively constant at around 70% over the post-Apartheid period, wage income has contributed between 85% and 90% of the total inequality in household income over

the years 1993, 2000 and 2008. In contrast, state transfers are shown to make up less than 1% of the overall Gini coefficient.

Figure 5.4 clearly shows the inequitable distribution of unemployment across the deciles. Since the labour market is an important source of income, it is not surprising that employment and income deciles are linearly related. This serves to highlight the important role that has been played in labour market inequality by the difficulty in accessing employment and by the growing number of zero-earners within households.

While a focus on unemployment and zero-earners is important, income source breakdowns clearly reveal that inequality in labour income is equally important, and perhaps more so. There is evidence to suggest that wage inequality is high and increasing. Figure 5.5 shows a large degree of inequality amongst those who do earn a wage income. Decile 9 earned on average 16 times more than decile 1 in 1997, and this increased markedly between 1997 and 2008 (Table 5.20). The ratios between the wealthy and the middle class, and between the poor and the middle class, are fairly stable, although both ratios have seen increases since 1997. This increase in wage inequality is largely because, between 1997 and 2008, deciles 9 and 10 were the only ones to experience any growth in real wages, as all other deciles suffered a decrease in real wages (Table 5.19). During this period, average real wages in decile 1 almost halved, while real wages in decile 9 increased by 12%. Ultimately, the highest decile enjoyed the highest increase in real wages, while the lowest decile suffered the highest decrease, further entrenching wage inequality.

Table 5.19. **South African wage inequality by decile ratios, 1997-2008**

	D9/D1	D9/D5	D5/D1
1997	16.0	3.3	4.8
2001	20.8	4.2	5.0
2005	25.4	5.2	4.9
2008	23.8	5.0	4.8
Change 1997-2008 (in %)	48.4	50.0	-1.0

Source: OHS (1997), LFS (2001, 2005), NIDS (2008).

Table 5.20. **South African real average monthly wages by decile, 1997-2008**

In South African Rands

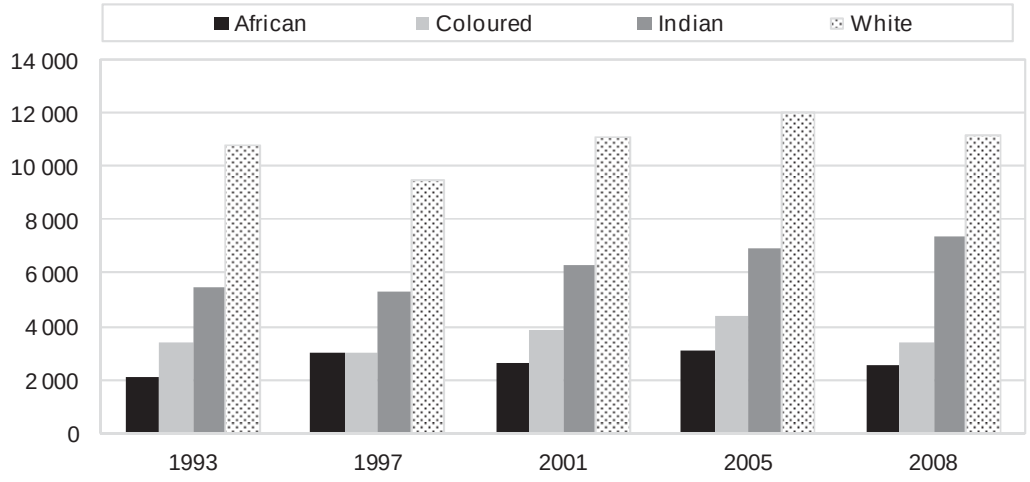
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10
1997	325	687	1 109	1 607	2 125	2 753	3 495	4 620	6 392	16 824
2001	306	605	970	1 387	2 010	2 920	4 219	5 873	8 542	19 846
2005	296	662	1 003	1 434	1 902	2 537	3 597	5 300	8 634	22 026
2008	186	578	899	1 200	1 597	2 159	3 031	4 335	7 186	20 771
Change 1997-2008 (in %)	-42.8	-15.9	-18.9	-25.3	-24.8	-21.6	-13.3	-6.2	12.4	23.5

Source: OHS (1997), LFS (2001, 2005), NIDS (2008).

Due to the fact that income deciles in South Africa are racially biased, with Africans pre-dominantly occupying the lower deciles, it is important to decompose wage inequality by race. As is shown in Figure 5.5, racial wage gaps have remained fairly steady over the last fifteen years. Such information may lead one to believe that racial inequality as a whole is fundamentally driven by the labour market. The prevalence of such vast wage gaps may be explained by the remarkable difference in the education level attained by different population groups, with Africans suffering the lowest levels. However, the number of Africans with a tertiary level of education has in fact increased far more dramatically than the number of Whites in the same category. This suggests that Africans experience a lower return to tertiary education than do other population groups, which coincides with the findings of Keswell (2004). A couple of factors could account for this, namely, quality of education and employer bias. In the post-Apartheid labour market, an increase in employer bias seems implausible, and Pauw *et al.* (2008) and Chamberlain and van der Berg (2002) suggest that controlling for specific tertiary qualifications and for the quality of education more generally removes a great deal of these lower returns.

Figure 5.5**. Average real wages in South Africa decomposed by race, 1993-2008**

In South African Rands

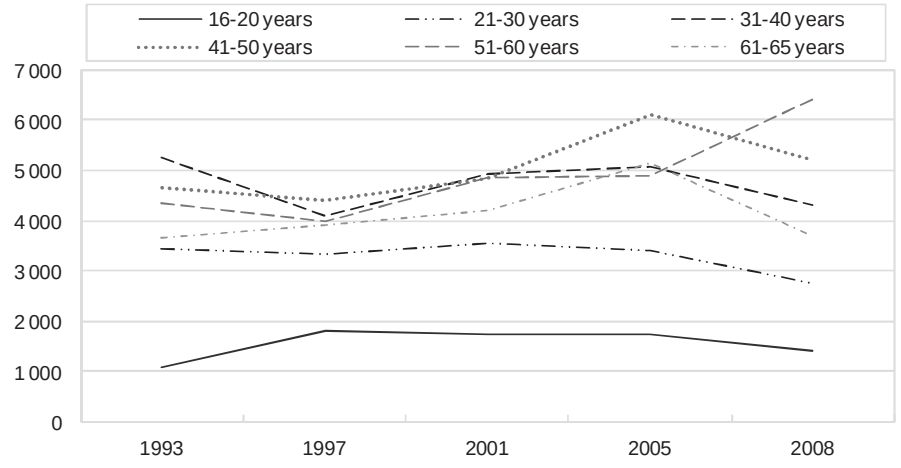


Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Similarly, inequality can be decomposed by age as shown in Figure 5.6. What is striking here is the low wage earned by 16-20 year-olds as compared to the other age cohorts. This is likely because this age group participates more in casual and part-time labour, or is paid low wages due to their lack of experience and education. In the last three years, there has been a clear decrease in the real wages earned in all age groups except age 51-60. As a result, most real wage increases since 1993 have been cancelled out, with the elderly suffering the largest fall. This coincides with a study carried out by Banerjee *et al.* (2008), who found that in general, real wages in South Africa have declined.

Figure 5.6. **Average real wages in South Africa decomposed by age cohort, 1993-2008**

South African Rands per person and month



Source: PSLSD (1993), OHS (1997), LFS (2001, 2005), NIDS (2008).

Conclusion

Income inequality has risen in post-Apartheid South Africa, aside from a slight drop between 2005 and 2008, and remains particularly high within the African population. Despite South Africa's racially segregated past, between-race inequality has been declining, while inequality within races is increasingly gaining prominence. The labour market has been identified as the leading driver of this inequality, since wages appear to comprise an important part of income generation, with the upper deciles making gains in real wages over time in this department and the lower deciles making losses. On the other hand, improvements in welfare appear to have taken place, with both poverty headcounts and poverty gaps declining post-Apartheid. Access to services also improved during this period. However, young Africans still find themselves being denied employment opportunities and hence bearing the brunt of poverty and becoming increasingly dependent on social grants. Any declines in poverty levels thus have little to do with the labour market, where those in the lower deciles are experiencing increasing difficulty in finding work, and more to do with an expansion in social assistance. This is discussed further in Section 5.4.

5.3. The role of labour market institutions and policies

Introduction

Any labour market functions within the framework of the labour market policies and institutions that govern collective bargaining and working conditions. This section presents these institutions in order to integrate them with the empirical picture of the first two sections.

The evolution of these institutions in South Africa is especially interesting. With the suppression of Black political organisation under Apartheid, struggles over the rights of Black workers to unionise and to participate in collective bargaining were integrated with broader political struggles, and from the late 1970s were seen as a major part of these

struggles. Fundamental to Apartheid were labour policies that undermined the rights of Black workers (Nattrass, 1997). Not only were well-paying, skilled jobs reserved for White workers, but Blacks were excluded from participating in the statutory collective bargaining arrangements of the time, namely the Industrial Councils (Godfrey *et al.*, 2007). As Black unions were not afforded legislative protection, wages and conditions of employment for Black labourers turned out to be especially dire. Yet the rapid increase in the number and strength of some Black unions, and principally their active pursuit of plant-level bargaining, resulted in the legalisation of Black trade unions and their inclusion on Industrial Councils and conciliation boards (*ibid.*).

In the 1980s, there were major differences between the objectives of established White unions and the emergent Black unions were due to the differing skill levels of the workers they represented and the level of bargaining they promoted. White unions concentrated their efforts on improving working conditions for skilled workers, ran membership benefit schemes, conferred with management and administered the system (Moll, 1993). Black unions, on the other hand, focused on gaining recognition, plant by plant, via the organisation of operations at the factory floor level and the training of shop stewards (a union-elected intermediary who negotiates with management) (*ibid.*). Despite the recognition of Black trade unions, White (and consequently established) unions dominated the collective bargaining body (*ibid.*). In addition, employers resisted attempts by the Black unions to organise their workers. The milieu for Black unions was conflictual and difficult.

Along with the induction of the ANC government in 1994 came the task of rewriting the labour legislation. The negotiations that gave rise to the revised legislation took place within the NEDLAC (the National Economic Development and Labour Council) in that same year. It was established with representatives from government, business and labour as a means to facilitate the development of formal negotiations over labour market regulation (Benjamin and Theron, 2007). These negotiations resulted in the new Labour Relations Act (LRA) and a brace of new legislation governing working conditions and employment standards. Table 5.21 provides a snapshot of this legislation.

The evolution of these post-Apartheid South African collective bargaining institutions did not follow international trends and thinking. At the time, these international trends favoured increased decentralisation of bargaining (Calmfors and Driffil, 1988; Soskice, 1990). In contrast, the negotiations at NEDLAC resulted in an acceptance of a sectoral or industry-level bargaining system for South Africa. Some saw this result as being little more than a consolidation of the strength of the non-racial trade union movement, reflecting a pro-labour ideology (Boccara and Moll, 1996). A more positive view of this negotiation process states that since this new legislation was founded upon a tripartite process (negotiations between government, labour and employers), "its core principles enjoy a high degree of legitimacy among the key stakeholders within the economy" (Benjamin and Theron, 2007).

Sub-section below details and assesses the set of wage bargaining institutions that were established in the NEDLAC negotiations. This includes a discussion of both the sectoral bargaining process and the trade unions. Sub-section on "Institutions covering conditions of employment" goes on to discuss some of the other institutions that define South Africa's employment standards and the bargaining over non-wage conditions. With this detail as the context, Last sub-section concludes by pulling together the debates over labour costs and the flexibility of South Africa's labour market.

Table 5.21. **Coverage of South African labour legislation**

Name of Act	Key aims	Coverage
Labour Relations Act (1995)	Orderly collective bargaining Workplace democracy Effective labour dispute resolution (Provision for the Council for Conciliation Mediation and Arbitration)	All workers except the defence force, secret services and essential services
Basic Conditions of Employment Act (1997)	Improve minimum rights for all workers Improve enforcement mechanisms Makes provision for the Employment Conditions Commission to advise the Minister on minimum wages in "vulnerable"sectors	All workers except the defence force and secret service, including part-time and casual labour
Employment Equity Act (1998)	Eliminate unfair discrimination Ensure implementation of affirmative action	Employees in "designated" companies
Skills Development Act (1998)	Devise and implement national, sector and workplace strategies to improve skills of the workforce	Designated employers and sectors

Source: Adapted from Bhorat *et al.* (2001).

Collective bargaining: councils and agreements

The structure of the South African collective bargaining process gives significant leeway to negotiating parties in determining the influence of statutory regulations and the levels at which industry negotiations should occur. Negotiations may take place at sectoral bargaining councils, statutory councils (introduced at NEDLAC), or outside of the statutes, or at firm and plant level or in non-statutory centralised bargaining forums (Godfrey *et al.*, 2007). The functions of these bargaining mediums are outlined in Table 5.22. To this day, bargaining councils remain the anchor and focus of the Labour Relations Act (LRA) for union-employer negotiations, whereas statutory councils seem to have been less successful (*ibid.*). Statutory councils were established as a compromise between the voluntary nature of bargaining councils and the obligation to bargain, as demanded by COSATU (Congress of South African Trade Unions), as well as acting as a spring board to the formation of more influential bargaining councils (Godfrey *et al.*, 2007).

Within the LRA, workplace forums were instituted to serve the purpose of minimising workplace conflict at the plant level and encouraging the relevant parties to contribute to problem-solving (*ibid.*). The hope was that these forums would accentuate the common ground, rather than the discrepancies, between management and workers (*ibid.*). Furthermore, matters dealing with distributive issues would be located at the industry level, whereas productivity- and performance-related concerns would be dealt with at the plant level by workplace forums (*ibid.*). According to Godfrey *et al.* (2007), however, workplace forums are a "dead duck", and are an ineffective tool for supplementing centralised bargaining (*ibid.*, p. 102). When putting forward this argument, they point out that the effect of the employment equity and skills development committees set up under the LRA has been to eliminate evaluation and training issues from the workplace forum bargaining agenda. According to the authors, these issues are critical if one is to link skills to rewards.

Table 5.22. **Levels of bargaining in South Africa under the Labour Relations Act**

Governed by statute	Functions and powers	Registration
1. Bargaining Councils	Make and enforce collective agreements; Prevent and resolve labour disputes; Establish and manage a dispute resolution fund; Promote and establish training and education schemes; Establish and manage schemes or funds to benefit its parties or members; Make and submit proposals on policies and laws that affect a sector or area.	May be formed by one or more registered trade unions and one or more registered employers' organizations, given that these parties are "sufficiently representative". NEDLAC is assigned the task of determining their scope and area of jurisdiction.
2. Statutory Councils	Resolve labour disputes; Promote and manage education and training schemes; Form and manage schemes or funds for the benefit of its parties or members; Make collective agreements; May perform any other bargaining council functions.	May be formed by a registered trade union or employers' organization which does not boast sufficient membership to meet the representivity requirement to form a bargaining council. Thus, registration is unilateral.
Outside of statute	**Functions and powers**	**Description**
1. Plant or firm level bargaining	Bargain over issues otherwise covered by Bargaining or Statutory Councils.	Collective bargaining between an individual employer and the trade union(s) representing the employees of that particular employer.
2. Workplace forums	They promote the workers' interests by consulting and making joint decisions. Employers must provide relevant information to workplace forums. A workplace forum has the right to be consulted by the employer on: restructuring and new work methods; partial or total plant closure; mergers and ownership transfers; retrenching workers; job grading; criteria for merits and bonuses; education and training; product development plans; export promotions; health and safety measures.	Workplace forums may be formed when there are more than 100 workers by applying to the Commission for Conciliation, Mediation and Arbitration (CCMA).

Source: Department of Labour, Republic of South Africa (available at *www.labour.gov.za*) and Godfrey, Theron and Visser (2007).

As depicted below, South Africa's collective bargaining framework exists on two levels: one is more centralised at the industry level in bargaining councils and one more decentralised to individual firms or plants. The 1990s view of the interaction between industry-level and firm-level bargaining is well summarised by Macun (1997). Using the South African Labour Flexibility Survey (SALFS), he argued that, although bargaining levels vary considerably across sectors, there is a trend towards greater centralisation of bargaining at the sector level. Plant-level bargaining remained in place, but the balance in collective bargaining in South Africa was seen as being positioned at a point closer to being centralised than decentralised (Macun, 1997). For Moll (1993), this was a predictable outcome of employers refusing to negotiate on two levels and trade unions compromising plant-level bargaining in exchange for the ability to set actual wage increases at councils. With some foresight, and given the debates that ensued, this led Moll (1993) to predict the possibility that wage hikes would thus automatically be transferred to smaller firms that who might not be able to afford them, and that productivity-bargaining at firm level would be seriously undermined.

In sharp contrast to this 1990s view, in 2007 Godfrey *et al.* argued that the new LRA seemed to have failed in promoting a more unified bargaining scheme. Rather, there was a tendency in the South African collective bargaining system for bargaining units to become increasingly decentralised, as the process of firm- and plant-level bargaining was put under increasing pressure and fragmented into ever smaller bargaining units. As a consequence, agreements reached at such decentralised levels were generally limited in scope, dealing only with wages and basic conditions of employment.

Furthermore, questions have been raised with regard to the binding nature of the minimum wages imposed by bargaining councils. By the late 2000s, Godfrey *et al.* (2007) reported that most firms cited poor enforcement of bargaining council rulings as a fundamental flaw in the system and demanded more rigorous enforcement. Interestingly, small firms turned out to be far more perturbed by a lack of enforcement, as they regarded themselves as being at greater risk from unregistered competition than their larger counterparts (*ibid.*). It must be pointed out that the growing trend towards outsourcing labour in South Africa is making the enforcement of rulings a far more challenging task, as the workers are generally not registered with the relevant council (*ibid.*).

South African labour unions feature prominently in bargaining at the sectoral-level bargaining councils as well as at plant-level bargaining, in addition to advising workers to resolve disputes through the Commission for Conciliation, Mediation and Arbitration (CCMA). Thus, they are central to the entire bargaining system and need to be spliced into this discussion. Commentators agree that because of the history of collective bargaining in South Africa, the unions see their mandate and objectives as being fairly broad. For Moll (1995), they were primarily driven by concerns about economic justice, fair working conditions and the standardisation of wages within and across firms and within occupations. This view is consistent with Godfrey *et al.* (2007) that the main agenda of South African labour unions is to address the effects of the inequalities created by the racially warped labour market of the Apartheid era. This includes raising wages, improving working conditions and expanding social benefits (*ibid.*).

In South Africa, the three major union federations, COSATU, FEDUSA (Federation of Trade Unions of South Africa) and NACTU (National Council of Trade Unions) have a vast membership majority and form the labour constituency at the NEDLAC. According to Moll (1996), in 1996 the share of the labour force that was affiliated to a union was high for a country with the income levels of South Africa. Macun (1997) found that 86% of firms had a recognised trade union, with COSATU having a 75% majority of membership. Trade union membership has begun to decline in recent years, however, with a drop in actual membership of just over 600 000 workers from 2005 to 2008 (Statistics South Africa, 2005 and SALDRU, 2008). The biggest drop in membership occurred in the finance and utilities sectors. Union representation in South Africa generally also reflects a relatively narrow spectrum. Small businesses had low union participation; an overwhelmingly high percentage of unionised workers are either unskilled or semi-skilled; and Black trade unions lack representation in the semi-skilled sector overall. Furthermore, it was found that union affiliation was dominated by African males.

Thus, the contemporary assessment of the wage-bargaining apparatus is that it is facing significant challenges. This appears to be part of a more general set of challenges facing the collective bargaining apparatus as a whole, encompassing both the bargaining councils as well as the trade unions. The number of bargaining councils in the private sector has fallen dramatically since the inception of the LRA, despite the fact that the

legislation was intended to promote sector-level bargaining (Benjamin and Theron, 2007). As a result, coverage by bargaining-council agreement has become severely limited and confined to a few sectors of the economy (Godfrey *et al.*, 2006; Benjamin and Theron, 2007). The diminishing influence of such agreements is exacerbated by developments in the tertiary or services sector, where union membership in the private division has declined significantly. Indeed, Benjamin and Theron (2007) makes the connection between a lack of bargaining councils within the private services sector and the difficulties faced by unions in organising this private sector workforce. Representation in unions has not only diminished in the private sector, but also, from the employer's side, the increased use of atypical (non-permanent) labour appears to circumvent plant-level bargaining almost entirely (Rosenthal *et al.*, 1997).

Institutions covering conditions of employment

Dispute resolution and the Commission for Conciliation, Mediation and Arbitration

The dispute resolution function of the LRA is carried out via the Commission for Conciliation, Mediation and Arbitration (CCMA), formerly known as the Conciliation Boards and the Industrial Court. Conflict resolution was an important new function that CCMA-accredited bargaining councils would need to perform within their designated scope and area (Godfrey *et al.*, 2007). The main objective of the CCMA is to ensure the more efficient resolution of disputes about employment issues (Benjamin *et al.*, 2006). Today, the vast majority of cases referred to the body deal with unfair dismissals, as well as unfair labour practices, collective bargaining and severance pay (*ibid.*). According to the positive view of Benjamin and Gruen (2006), the CCMA is effective at settling labour disputes and makes a considerable contribution to South Africa's solid industrial relations (Benjamin and Gruen, 2006). In addition, strike action as a means of labour retaliation has begun to decline since its implementation (*ibid.*).

However, there are strong indications of internal inefficiency within the country's main dispute resolution mechanism (Bhorat *et al.*, 2009). There is "tremendous backlog" (CCMAil, 2005, p. 16). Moreover, the subsidy provided by the CCMA to unions is perceived to be of insignificant value, as it does not fully cover their costs in carrying out conflict resolution services (Godfrey *et al.*, 2007). Similarly, legal costs have escalated because the High Courts that deal with more complex issues do not have national jurisdiction; consequently, if a single employer engages in industrial action in different jurisdictions, the applicant will be forced to bring separate applications in the respective jurisdictions (Roskam, 2007). The CCMA has also been accused of employing under-qualified and inexperienced judges, and delays in rulings are becoming longer and more frequent (*ibid.*). In addition, the high turnover rate of acting judges makes it practically impossible for important precedents to be set (*ibid.*). Roskam (2007) believes that training CCMA commissioners would improve labour market efficiency more than would any amendments to the labour legislation (*ibid.*).

Basic conditions of employment and protection for uncovered workers

As shown in Table 5.21, much of the legislative framework put in place in the immediate post-Apartheid bargaining pertained to general employment conditions rather than narrow wage bargaining. The Basic Conditions of Employment Act (BCEA), promulgated in 1997, covers all workers that can be considered "employees". The BCEA also made provision for the establishment of the Employment Conditions Commission (ECC). The Minister of Labour in consultation with NEDLAC appoints the commissioners. The commission consists of five members, two members representing organised business and organised labour respectively, and three members who are knowledgeable about the labour market and conditions of employment, including the conditions of employment of vulnerable and unorganised workers.

The minister requests the commission to conduct investigations into appropriate conditions of employment and minimum wages for workers in certain sectors with a view to making sectoral determinations for those sectors. In general, these are sectors in which no bargaining council exists. It is estimated that between three and four million workers are afforded protection via these sector-specific determinations made by the Minister of Labour on the advice of the ECC. Sectoral determinations are in place in the following sectors: domestic work, agriculture, forestry, contract cleaning, private security, civil engineering, hospitality and tourism, the taxi sector and wholesale and retail trade. The Minister of Labour can add additional sectors at any time if it is considered that there are significant numbers of "vulnerable" workers in the sector.

As part of the investigation into making sectoral determinations, the commission holds public hearings nationwide and obtains views from representatives of business, labour, and civil society, as well as from academics and other interested parties on various issues concerning wages and employment conditions. All sectoral determinations are reviewed every three years but there are provisions for inflation-linked increases in the intervening years. The annual increases in these sectoral minimum wages are usually set at 1 or 2 percentage points above inflation.

Little research has been done on the impact of these sectoral determinations on employment levels and wages. The best-researched sector in this regard is the domestic worker sector, which employs about a million individuals, mainly women. This sector was completely unregulated prior to 1993 and had no prescribed minimum wage before 2002. When the minimum wage was introduced, there was considerable concern that massive job losses would ensue, but the data does not bear this out. Hertz (2004) found that regulations appear to have increased domestic workers' wages and improved certain non-wage conditions as well. Also, Benjamin (2008) found that the use of the statutory dispute resolution mechanism (the CCMA) is heavily used by domestic workers, with over 10 000 unfair dismissals referred to it by domestic workers annually.

Conclusion: taking stock of labour costs and the flexibility of the South African labour market

It is generally accepted that well-intentioned labour regulations may sometimes have unfortunate and unintended consequences. From the outset, the key criticisms of South Africa's labour legislation have concerned its indirect effects on employment levels, equality and investment. These criticisms were strident in the 1990s.

Moll (1996) identified three ways in which labour market rules and regulations may influence unemployment: *a)* "wage-cliffs" induce covered firms to substitute capital for labour in the short-term, and, hence, employ more capital-intensive technologies in the long-term; *b)* large "wage-cliffs" encourage search behaviour which results in "wait" unemployment; and *c)* an adjustment to equilibrium is retarded, as wages are left sticky in response to shocks (Moll, 1996). According to Schultz and Mwabu (1998), not only do firms substitute capital for labour, but working hours may also fall as a direct result of an increase in the cost of labour. This may provoke workers to seek employment in sectors not covered by collective-bargaining agreements, thereby reducing wages in uncovered sectors. In addition, participation in the labour force is likely to contract (Schultz and Mwabu, 1998). This is indicated by the fact that in regions where the "wage-cliff" was found to be exceptionally high, young African men and women were more likely to have left the labour force (*ibid.*). Using the Labour Flexibility Survey, Standing (1997) found that the preferred means to avoid escalating labour costs was to introduce technological changes. This not only decreases the demand for labour overall, but increases the demand for skilled relative to unskilled labour. In South Africa, this means a shift in demand away from a pool of unskilled labour that is abundant to a pool of skilled labour that is scarce.

One of the themes of the review in this section is that some of these initial fears concerning South African labour legislation have not been realised. For example, Benjamin and Theron (2007) reported the findings of the Small Business Project (a South African survey carried out on small businesses) that, while a preference for more flexible labour agreements was raised by most employers, only 20% cited labour laws or government regulations in general as discouraging them from hiring more employees. This may be why employment levels were relatively unaffected by the implementation of any specific regulation (Benjamin and Theron, 2007). As such, the "rigidities" identified by employers within the South African labour legislation may not translate directly into labour market inflexibilities, since certain regulations can be circumvented, for instance through increasing the use of temporary or part-time labour. Furthermore, Benjamin and Theron (2007) argued that the legislation-employment trade-off is considerably more complex than is generally believed, and that the idea that high unemployment and poverty levels are necessarily a result of labour market regulation is as yet unproven (Benjamin and Theron, 2007). Similarly, Godfrey *et al.* (2007) found that many firms had in fact increased employment levels, and where employment levels had decreased, it was usually for reasons unrelated to labour legislation. In addition, Roskam (2007) claimed that a "one size fits all" approach to labour legislation is becoming increasingly inappropriate. This train of thought extends beyond the labour market debate in South Africa, as it is also one of the central themes of the "flexicurity" debate in Europe. Some general support for this view comes from the OECD's Economic Assessment of South Africa (2008). The assessment calculated South Africa's Employment Protection Legislation (EPL) indicator and found it to be less restrictive than the average for the OECD countries as a whole.

Nonetheless, this positive view is not shared by all. One of the core goals of the new LRA is equality, and some, for example Aron *et al.* (2008), believe that South Africa's labour legislation, in particular the labour market governance embodied in the Labour Relations Act, the Basic Conditions of Employment Act and the Employment Equity Act, is far too rigid for a country with the kinds of unemployment conditions and labour market segmentations that currently exist. Bhorat *et al.* (2002) identified rigidities in the bargaining system based on the fact that employers speak of high transaction costs or a "hassle factor" associated with labour legislation that extends far beyond meeting minimum-wage requirements. It includes the costs to employers of complying with wage

and benefit standards, and issues such as the legal and procedural requirements on hiring and firing employees, the extension of agreements and the number of trade unions firms are required to interact with. According to the authors, this "hassle factor" has contributed significantly to South Africa's low employment level (Bhorat *et al.*, 2002, p. 47). The resources utilised in addressing these issues are considered by businesses as an increase in the implicit fixed costs of interacting with labour (*ibid.*). As with any additional costs, firms employ various methods in order to avoid such expenses. These include hiring less labour, substituting capital for labour, increasing the use of temporary workers, and using sub-contractors (*ibid.*). The implication here is that as a result of stringent labour legislation, labour is being replaced by capital, workers are enduring unemployment for a substantial length of time, and firms are keeping employment levels to a bare minimum.

Godfrey *et al.* (2007) found that a majority of firms are reluctant to increase the number of people they employ, due to the negative impact of the country's labour legislation. Similarly, Rankin (2006) found that, after other business factors, the most frequently mentioned constraint on hiring new workers, especially the unskilled, was inflexible labour laws, particularly concerning the hiring and firing of employees and minimum-wage laws. In addition, the 1990s argument that South African's labour market legislation has a negative effect on investment levels has not disappeared. For example, according to Rankin (2006), firm surveys indicate that labour legislation is perceived to be as important a constraint on investment as interest-rate levels.

Some of the stronger claims about the impact of rigidities and high costs are hard to prove, because they revolve around the claim that, if the regulations were not so cumbersome for small firms and if the bargaining processes within the bargaining councils were not dominated by larger firms and large unions, there would be more firms and therefore more workers than are seen in the data. However, it is hard to make a convincing case about the magnitude of these absent firms and workers.

Finally, and importantly, the increased use of atypical (or non-permanent) workers can be seen as a reaction to the labour market institutions. This allows firms to avoid increased labour costs but may have detrimental effects on the protection and remuneration of this form of labour and may threaten the very existence of bargaining councils. According to Benjamin and Theron (2007), the use of atypical labourers in South Africa is growing at a rapid pace. Rankin (2006) found that increasing sub-contracting and outsourcing was a more common response to labour regulations than labour-shedding. Generally, temporary workers are paid less than permanent labour and receive fewer or no benefits, and the value of the benefits provided is lower. According to Roskam (2007), casual labourers work for wages that are well below the poverty line, often work only for a few hours a day, and have no access to medical aid or retirement fund schemes. In addition, temporary workers have virtually no job security, and the supervision of labour standards by labour inspectors is more difficult (Roskam, 2007).

Thus, it does seem that there are some negative consequences from the legislative milieu. These raise problems for the calls for nuance, as there is little evidence that South African collective bargaining institutions have provided positive benefits to offset their costs.

5.4. What role for social policies?

Introduction

This section discusses the role of social policies in complementing the labour market policies discussed in the previous section. While the assimilation of more people into the labour market is at the heart of South Africa's poverty reduction strategy, there remains a need for programmes that provide income support to the unemployed and to people who are unable to work. In this section, we discuss the role of unemployment insurance, the Expanded Public Works Programme and social assistance grants (*i.e.* non-contributory and income-tested benefits provided by the state to vulnerable groups). Once again, much of the information in this section is drawn from a previous study on trends in South African income distribution and poverty since the fall of Apartheid (Leibbrandt *et al.*, 2010).

To frame the discussion, we begin by looking at the extent to which the unemployed are able to rely on the labour market income of other (employed) household members or on remittances (which usually represent labour market income of non-resident family members) or on social assistance grants (of any household member). Table 5.23 shows that in 2008 just under half of the unemployed were living in households that contained at least one employed person. Another 13% were living in households that received some indirect labour market income in the form of remittances. Most pertinently for this section, about one-quarter of the unemployed were living in households that were receiving social assistance grants and had no access to labour market income. The share of households with no link to the labour market has risen sharply, from 30% in 1997 to 42% in 2008.

Table 5.23. **South African household labour market attachment and access to grants of the unemployed**[a]

In percentage

	1997	2006	2008
No one employed, no remittances, no social grants	11.8	13.2	16.9
No one employed, no remittances, social grants	17.5	24.7	24.9
No one employed, remittances	21.3	11.2	12.9
One employed	35.8	39.4	36.6
Two or more employed	13.5	11.5	9.4
Total	100	100	100

a) This table is only done for selected years owing to the absence of data on either remittances or labour market status in other surveys.

Source: 1997 October Household Survey; September 2006 Labour Force Survey, Statistics South Africa and 2008 NIDS data.

Unemployment insurance

The Unemployment Insurance Fund (UIF) provides short-term income support to individuals who are not currently working because they lost their job, became ill or went on maternity leave. (Workers that voluntarily resign are not eligible for unemployment benefits.) Benefits are paid only in the period immediately following the cessation of work, and the person must have been contributing to the UIF at the time the event related to the cessation of work occurred. Benefits may be claimed for up to 238 days.

In the 2008/09 fiscal year, 442 000 people claimed unemployment benefits. Given that the maximum claim period is 238 days and that many claimants will receive benefits for a shorter time, this implies that significantly fewer than 442 000 people were in receipt of unemployment benefits at any given time. This figure is in stark contrast to the number of unemployed, which at the end of 2009 stands at 4 165 000 according to the Quarterly Labour Force Survey. It may seem surprising that less than 10% of the unemployed are in receipt of unemployment benefits. Part of the explanation lies in the fact that slightly more than half (55%) of the unemployed report that they have never worked and thus have not contributed to the UIF. Furthermore, of the unemployed who have previous work experience, 44% have been unemployed for more than a year and would have exhausted their benefits if they were ever eligible for them. Thus, while the UIF clearly has an important role to play in providing replacement income to the short-term unemployed with work experience, the vast majority of the unemployed fall outside of this system.

The Unemployment Insurance Fund is currently running a large and growing surplus. In the 2008/09 fiscal year, expenditure by the UIF was approximately ZAR 4.5 billion, while revenues exceeded ZAR 12 billion. This level of expenditure equates to less than 0.2% of GDP. This has prompted calls for reforms to the system to allow for non-contributors to benefit in some way. Given that more than 90% of the unemployed do not currently receive UIF benefits, the surplus would not stretch very far if they were all drawn into the current system. It would also require a complete overhaul of the existing system, given that it currently operates as an insurance scheme for contributors. It may be more feasible to reach non-contributors via the social assistance system.

Public works programmes

The Expanded Public Works Programme (EPWP) was implemented in 2004. The EPWP aims to create productive employment opportunities by increasing the labour intensity of all government programmes. Most EPWP jobs are in government-funded infrastructure projects (*e.g.* road-building), but there are also work opportunities in public environmental programmes (*e.g.* the removal of alien vegetation) and in public social programmes (*e.g.* early childhood development and home-based care programmes).

Under this scheme, all government bodies and state corporations are required to make a concerted effort to increase the use of unskilled labour. Through the use of public expenditure, temporary, generally unskilled employment is created for the jobless. This temporary employment is coupled with on-the-job skills development and training. The intention is to provide the participants leaving the programme with a better chance of finding regular employment.

Over the past five years, the size of the EPWP has grown steadily. As shown in Table 5.24, the EPWP provided 1.4 million "work opportunities" between 2004/05 and 2008/09. It should be noted that a "work opportunity" is defined as "paid work created for an individual on an EPWP project for any period of time" (Department of Public Works, 2009). Ideally, these figures should be converted to full-time equivalents to give a more accurate sense of the employment effects of the EPWP. This data is not, however, readily available. Hemson (2007) reported that in 2006/07 the average length of a work opportunity was 51 days in the infrastructure sector and 165 days in the social sector. They estimated that the number of full-time person years of work created is about one-quarter of the number of "work opportunities" reported.

Table 5.24. **Work opportunities and budget for the South African Expanded Public Works Programme (EPWP), 2004/05-2008/09**

	2004/05	2005/06	2006/07	2007/08	2008/09
Cumulative number of work opportunities created	393 441	503 843	592 990	1 107 162	1 449 806
Cumulative total expenditure (in billions ZAR)	7.8	6.1	11.2	30.2	54.2

Source: Department of Public Works, Republic of South Africa (available: *www.epwp.gov.za*).

It is important to note, however, that only a small proportion of the expenditure figures above represent wages paid to EPWP participants. Most of the spending in EPWP projects goes on non-wage costs, such as building materials. Hemson (2007) reported that in 2006/07 wage costs accounted for only 8% of spending in EPWP infrastructure projects and 48% of spending in social sector projects.

Currently, the EPWP transfers fairly modest amounts of income into a relatively small number of households. However, the intention is to increase the scale of the project to provide the full-time equivalent of more than 400 000 jobs a year over the medium term (National Treasury, 2009). If the state has the capacity to implement the programme at this level of intensity, it has the potential to make a significant contribution to poverty alleviation through providing short-term income support.

Social assistance grants

As discussed in Section 5.2, social assistance grants have far-reaching implications for poverty alleviation, particularly for households that have little connection to the labour market. There are several kinds of Social Assistance Grants, namely, the State Old-Age Pension, the Disability Grant, the Child Support Grant, the Care Dependency Grant and the Foster Care Grant. Spending on social assistance expanded rapidly between 2000/01 and 2006/07. While spending on most budget items (*e.g.* education and health) remained fairly constant in real terms, consolidated expenditure on welfare and social assistance has increased from 3.3% of GDP in 2000/01 to 4.5% of GDP in 2008/09 (National Treasury, 2002 and 2009).[10] In April 2009, 13.4 million people were benefiting from social grants. Of these, 2.3 million were receiving old-age pensions, 1.4 million were receiving disability grants and 9.1 million children were benefiting from Child Support Grants. All these grants are means-tested unconditional cash transfers, apart from the disability grant, which does not require means-testing.

Table 5.25 looks at the percentage of households in each income quintile that received income from specific social grants in 2008. More than half of households in the bottom quintile received some income from the Child Support Grant, in comparison with only 9% of households in the top quintile.[11] Because the size of the Old-Age Pension is sufficient to lift many households out of the poorest quintile, households receiving the Old-Age Pension are more likely to be in the second or third quintile rather than the very poorest quintile. As seen in Figure 5.3, the bottom income quintile receives nearly two-thirds of its total income from social assistance grants, predominantly from the Child Support Grant.

Table 5.25. **Percentage of households reporting income from social grants in South Africa by quintile, 2008**

Quintile	% reporting any income from child grants	% reporting any income from disability grant	% reporting any income from old age pension
1	55.8	5.7	9.8
2	57.9	10.9	27.1
3	45.4	14.7	23.5
4	26.5	9.9	17.7
5	9.0	2.8	5.0
All	33.6	8.2	15.3

Source: NIDS (2008).

Whether social assistance grants decrease labour-force participation or not is unclear, as empirical studies present conflicting evidence. Bertrand *et al.* (2000) found a reduction in working hours of members of working age when another member of the household reaches pensionable age. The reduction is greater when the older person is a woman. Working-age women tend to reduce their working hours less than working-age men and the oldest son tends to reduce his working hours more than other members. Klasen and Woolard (2009) argued that access to state transfers results in the unemployed basing their location decisions on the availability of financial support rather than on the best location for the employment search. Because a lot of financial support (specifically that provided by the elderly) is based in rural areas, this leads to reduced opportunities for job matching. Posel *et al.* (2004) found that African women are significantly more likely to be migrant workers when they are members of a household in receipt of a pension, especially when the pension recipient is female. Labour migrants in age-eligible households are slightly more likely to be female, to be more educated, and to be older than those in non-age-eligible households. The authors hypothesised that the reasons for the relationship between pension income and migration could be that the pension provides the means to migrate, and/or that the pension provides the means for the older person to care for the child/children of the migrant.

Conclusion

This section has provided a review of the current and potential impacts of three major policy prongs. At first pass, the Unemployment Insurance Fund and Expanded Public Works Programme have potential, as they are explicitly directed at the unemployed. However, both of these policies currently have a very limited impact. The UIF aims to provide relief for the short-term (frictional) unemployed and is financed out of employer and employee contributions made while employed. This meshes poorly with the circumstances of most of South Africa's unemployed, many of whom are unemployed for long periods of time or have never even been employed. Thus, only 10% of the unemployed receive benefits and, looking forward, the UIF seems to have limited possibilities. In contrast, a significantly expanded public works programme with improved targeting and efficiency (in terms of increasing the share of wage costs in overall programme costs) could have a larger impact. This expansion has been underway since early 2009. However, this will require a large budget allocation and employment will need to be carefully targeted to ensure that these jobs reach the most needy unemployed rather than opening up additional possibilities for those already in employment.

Social grants are shown to have been central to poverty alleviation over the post-Apartheid years. A quarter of the unemployed derive income support exclusively from the grant income of other members of their household. These grants assist in reducing unemployment only indirectly: through funding job search or migration or the establishment of a business. Some of these grants involve large cash transfers, and there is some concern about negative labour-supply effects from these transfers. However, there is little empirical evidence to support this concern.

5.5. Other policies impacting inequality

Two areas that are central to the longer-run amelioration of inequality are education and health. The effectiveness of post-Apartheid education and health policies is explored in this section. The data has shown unambiguously that levels of education determine the opportunities facing South Africans in the labour market. There is an urgent need for education and training policies that raise the levels of education and productivity of South Africans. The same is true of health policies. However, education and health policies have been producing unsatisfactory outcomes, not because of under-resourcing but because of inefficiencies in service delivery and quality.

Inequality in education

Education policy under Apartheid was starkly inequitable in terms of how it treated people of different races. The majority of state resources were diverted to schools in "White" areas while the population living in "Black" areas was subjected to very low-quality schooling. In this way, South Africa developed a high-quality education system that benefited only a minority of the population. The task of the government post-Apartheid has been to extend this well-functioning education system to the entire population. But despite massive shifts in the allocation of state resources, educational inequalities have proven to be remarkably persistent.

Figure 5.7 illustrates how educational attainment has changed over time for each race. The differences in educational attainment by race are startlingly large, with Whites on average receiving eight more years of schooling than Africans in the 1960s. This differential has been decreasing over time, as educational attainment for all races except Whites has been increasing rapidly since then. Despite this convergence, educational inequality still exists; while on average Whites and Indians had equal years of schooling in 2008, Africans and Coloureds still achieved 1.5 grades less.

There is a large difference in quality of education between formerly White schools and formerly African schools. The majority of South African learners attend poor-quality schools, and thus educational attainment figures could be exaggerating the level of education (Van der Berg, 2009a). Only grade 12 has externally set examinations, so all grades below this are likely to exhibit varying levels of learning, dependent on the school. South African pupils perform very badly when compared to other countries, even at the primary school level. Table 5.26 compares South African literacy performance with an international benchmark of 40 other countries, both developed and developing. The vast majority of South African learners (78%) did not attain the basic level of 400, while 94% of students from other countries did. Being an Afrikaans or English first-language speaker (and thus more likely to attend a historically "White" school) greatly improves test scores, but performance is still poor in comparison to international standards. Scores for learners with an African first language were particularly low, which signals that these children are getting an extremely poor-quality education.

Figure 5.7. **Educational attainment of 21-30 year-olds across cohorts in South Africa**[12]



Source: NIDS (2008).

Table 5.26. **South African literacy standards for grade 5 learners in 2006**[a]

Mark (benchmark/competence)	All	South Africa	Afrikaans	English	African language
400 (low /basic)	94	22	55	52	4-14
475 (intermediate/some)	76	13	35	36	0-3
550 (high/competent)	41	6	17	18	0
625 (advanced/fully competent)	7	2	5	5	0

a) Figures represent the percentage of students who achieved that score or higher. Afrikaans, English and African refer to the first language of the student. The ranges refer to variance across the African languages, with Setswana and Sesotho-speaking learners performing best.

Source: Progress in International Reading Literacy Study, 2006.

Even using the Department of Education's own standardised assessments, primary education is poor. Table 5.27 shows that even though standards have increased between 2001 and 2007, levels of competency are still low. There are also large variations by province. The Western Cape and the Free State have made the largest improvements in literacy and numeracy. The worst-performing provinces are once again the former homelands: Limpopo, KwaZulu-Natal and Mpumalanga. There is also a large amount of variation to be expected within provinces. Ultimately, these scores show that not only is the standard of education poor, but there is also a large degree of variation in quality by region and school.

Table 5.27. **Grade 3 standardised assessment scores by province in South Africa**

	Literacy		Numeracy	
	2001	2007	2001	2007
Eastern Cape	24	35	34	36
Free State	27	43	29	42
Gauteng	33	38	32	42
KwaZulu-Natal	35	38	31	36
Limpopo	27	29	26	24
Mpumalanga	28	32	29	31
North West	29	35	25	29
Northern Cape	23	34	26	31
Western Cape	33	48	32	49
South Africa	30	36	30	35

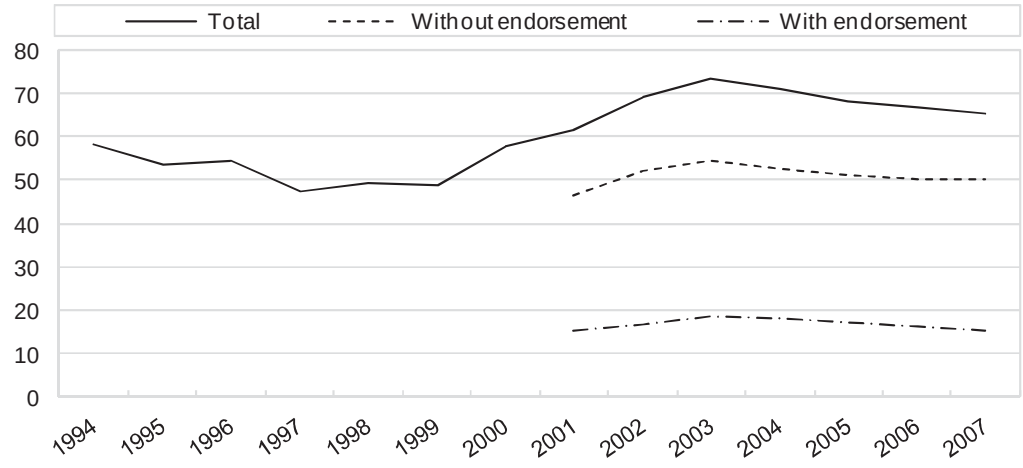
Source: Department of Education, Grade 3 Systemic Evaluation.

Access to education

Educational attainment has been increasing across all race groups, particularly for Africans. In 2007, 94% of all school-age children were enrolled in school, which means that there is close to universal access to primary and secondary education (Department of Education, Annual Reports). There is however, still a high rate of grade repetition, particularly in secondary school. The enrolment of age-appropriate children in grade 12 has increased over time, but the level of 62% in 2007 still suggests either a high drop-out rate or a high repetition rate at earlier grades (*ibid.*). Dieltiens and Meny-Gibert (2008) suggested a phenomenon of "discouraged learners", where students withdraw from education without entering the job market due to disillusionment about their chances of employment. Anderson *et al.* (2001) provided evidence that African students are more likely to be repeating grades than dropping out, due to high enrolment ratios, particularly after the age of 18.[13] In 2008, more than half of African males and 40% of African females had repeated at least one grade by the time they reached grade 10. Previously students were allowed to repeat grades as often as they liked, which resulted in schools and classrooms being disrupted by the presence of much older children. Regulations have been implemented that prohibit children from continuing in a grade past certain ages, forcing many students to discontinue their education and join the labour force.

African students are also battling to obtain their school-leaving certificate when they do reach grade 12.[14] Many students in poor-quality schools find themselves inadequately prepared for this national exam and end up repeating this year in particular. Figure 5.8 shows that the grade 12 pass rate increased rapidly after 1999, but appears to have been falling again since 2003. Due to the low level of education experienced by the majority of the population before 1994, reallocating resources resulted in large gains post-1994, particularly in secondary education. The fruits of this investment are borne out in post-1999 grade 12 pass rates. However, it appears that since 2003 factors other than access that affect the quality of education have come to the fore. More troubling is the low achievement of the certificate with endorsement, which is required for entry into university. This results in denying access to a university education to more than 70% of those passing grade 12.

Figure 5.8. **South African grade 12 pass rates, 1994-2007**



Source: Department of Education.

The standard of university education in South Africa is relatively high, but unfortunately the large variance in the quality of education received at the primary and secondary level results in only a small percentage of the population being able to fully benefit from these institutions. In 2008, only 1.4% of working-age Africans held a degree, compared to almost 20% of working-age Whites (Table 5.28). This proportion for Africans has hardly increased since 1993, while the proportion for Whites has grown by 5.4%. Tertiary education policy provides many incentive and support schemes for African students but the poor quality and success rate of their secondary schooling effectively excludes them from achieving a university education.

Table 5.28. **Proportion of working-age population with a degree or higher in South Africa, by race, 1993-2008**[a,b]

	African	Coloured	Indian	White
1993	0.5	0.8	6.7	14.2
1997	0.8	1.3	5.5	12.5
2001	1.6	1.5	8.2	15.7
2005	1.6	1.3	6.5	18.5
2008	1.4	2.7	5.5	19.6
Difference 1993-2008	0.9	1.9	-1.2	5.4

a) Working age refers to the population between the ages of 16 and 65.

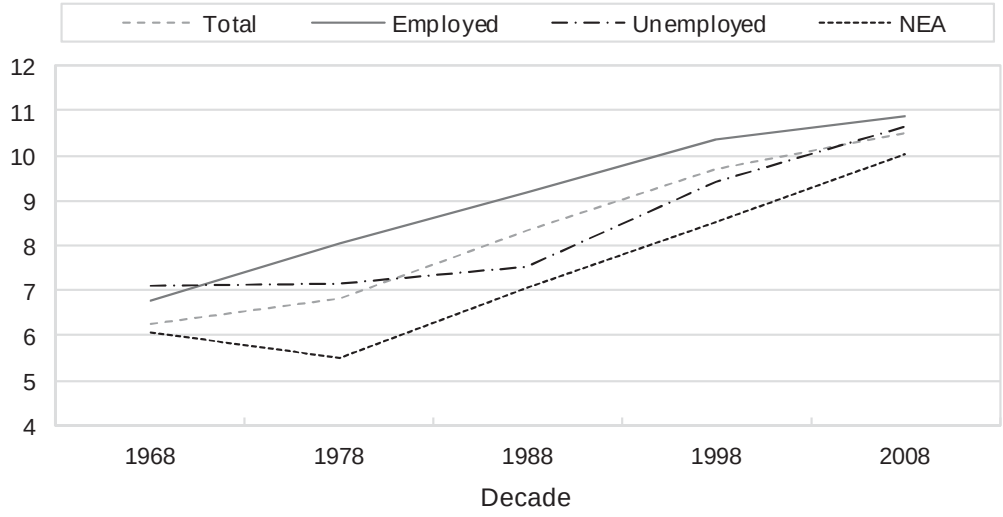
b) A degree or higher includes those with a Bachelor, Honours, Masters or Doctorate degree.

Source: PSLSD (1993), OHS (1997), LFS (2001), LFS (2005), NIDS (2008).

This inequality in schooling could go some of the way towards explaining the high levels of unemployment amongst Africans, as well as lower average wages. Education is clearly a factor that makes a worker more competitive in South Africa's tough labour market. However, as labour demand fails to keep pace with labour supply, the better educated increasingly find themselves amongst the unemployed. Figure 5.9 shows that the education levels of the employed have been increasing over time, as have those of the

unemployed. In fact, the education differential between the employed and the unemployed is smaller now than for previous generations. This suggests that labour demand simply does not have the capacity at present to absorb an increasing number of educated labour-force participants.

Figure 5.9. **South African educational attainment by employment status across cohorts**[a]



a) NEA refers to Not Economically Active, in other words, those not included in the labour force.

Source: NIDS (2008).

Since education is not homogeneous, and exhibits varying functionalities and degrees of quality, the pertinent question to ask is, what types of education or skills are lacking in the labour market? The Department of Labour, together with other departments, drafts a national scarce skills list annually in order to try and identify which skills are lacking in the labour market (see box below). These skills are then promoted through Sectoral Education Training Authorities (SETAs) at a sectoral level through various policy interventions and training.[15] Unfortunately, these SETAs have proven very ineffective and unsuccessful at producing meaningful levels of change. The skills deficit generally revolves less around qualifications, although this is important, and more around a lack of work experience within these occupations. What are needed are senior level professionals and managers, which require internships, mentoring programmes and individual career building within an industry (see Box 5.1 for details). This helps to explain why unemployment is such a pervasive and growing problem among the youth, despite higher levels of education.

In conclusion, skills shortages suggest some level of excess demand in the labour market that is currently not being met by supply. Tertiary education, particularly in the areas highlighted above, is necessary in order to bridge the divide between labour demand and supply and lower unemployment. Adjusting policy at the tertiary level will not prove very effective if this is not combined with increased educational attainment and quality at the primary and secondary level. While education policy has taken great strides in improving access to education and educational attainment, particularly for Africans, the quality of education is still very poor. The variable quality of education between previously advantaged and disadvantaged schools serves to reinforce inequality,

particularly between areas and races. This unequal access to quality education persists through primary and secondary school, and effectively reinforces inequality at the tertiary level. Low skill levels result in low wages or become a barrier to employment, which reinforces a cycle of poverty and inequality. While the chances of employment remain higher for workers with a tertiary education, unemployment in South Africa is increasing across all education levels, possibly eroding the returns to education over time. While increasing skills in identified areas of skills shortage will help decrease unemployment (and boost economic growth), this is unlikely to provide a sufficiently large change due to the extent of the unemployment problem. Thus while more equal access to quality education is necessary, a simultaneous increase in labour demand is required if the newly educated are to avoid joining the ranks of the unemployed.

Box 5.1. **South Africa's skills shortages**

The Department of Labour annually publishes a national skills shortage list that explains in detail which occupations the government has deemed as "scarce skills" for policy and intervention purposes. It can be found at: *www.labour.gov.za/documents/useful-documents/skills-development/useful-documents.*

This list is too exhaustive to publish here, so instead what follows is a list of the annual scarce skills working visa quotas for 2007, as published by the Department of Home Affairs. This list is derived from the national scarce skills list and identifies crucial occupations where the department is willing to import skills; As such, it provides a more meaningful indicator of scarce skills than the more expansive list. Including the number of visas allocated for workers also assists in quantifying the extent of the scarcity.

5 000: Clinical and biomedical engineers, agricultural science technicians

4 000: School teachers (maths, science, design and technology specialisations)

1 500: Civil engineering draftspersons and technicians, structural steel and welding trade workers, precision metal trade workers and toolmakers

1 000: Civil engineers, biological science technicians, industrial technologist and testers, aircraft and avionics technicians

800: Millwrights and mechatronics trade workers

500: Actuaries, statisticians, economists (in particular agricultural economists), aeronautical engineers, aircraft maintenance engineers, electrical engineers (including draftspersons and technicians), specialist pipe engineering and manufacturing, agricultural and forestry scientists, bioengineers, sheet metal trades workers, boilermakers, metal fitters and machinists, fitters and turners, ICT network and support professionals

350: Autotronics technicians

300: Research and development pharmacologists

250: Avionics engineers, quality engineers and inspectors, veterinarians, earth science technicians, electronics technicians, mechanical engineering draftspersons and technicians, hydraulics and pneumatics technicians, jewelry designers

200: Chemical engineers, astronomers, astrophysicists, atmospheric physicists, space scientists

150: Structural engineers, geophysicists, mechatronics technicians, manufacturing technologists and technicians, electricians

100: Industrial and mechanical engineers, mining engineers, chemists, food technologists, geologists

50: Education planners

The state of healthcare

In 1994, the newly elected ANC government inherited a health system that was divided in terms of access and quality along racial, geographical and socio-economic lines. The previous Apartheid government encouraged the growth of the private healthcare sector in the 1980s in order to reduce demand for public health services through various measures, such as deregulating and promoting private medical aid schemes (Centre for Health Policy, 2007). The public sector, which primarily catered for the poor, was commercialised by increasing its reliance on user fees at public health facilities (Centre for Health Policy, 2007).[16] Thus, by 1993, private health facilities were being accessed by 23% of the population yet received 60% of the total national health expenditure (Centre for Health Policy, 2007). Consequently, one of the major challenges that faced the new health department was to address the disparities in health-care resource allocation.

In an attempt to curb the growth of private health providers, the Medical Schemes Act of 1998 imposed a moratorium on the construction of private hospitals, restricted dispensing of medicines by private practitioners, introduced drug price regulations, and capped dispensing fees (Centre for Health Policy, 2007). The Act also limited the extent of risk-rating by medical aid schemes, and thus encouraged the subsidisation of the sick by the healthy within the population covered by private health insurance. In addition, this subsidisation also prevented sickly patients who had exhausted their private medical insurance benefits from becoming reliant on the public sector (Centre for Health Policy, 2007; McIntyre and Gilson, 2002). It is important to bear in mind that South Africans not covered by private medical insurance had and still have no access to health insurance at all. Any reference made to medical schemes therefore necessarily refers to the private health-care sector. The Act does not allow for cross-subsidisation between higher- and lower-income groups, as it does not require medical schemes to establish income-related premiums (Centre for Health Policy, 2007). Therefore the divide which exists between those who have access to and can afford world-class health care, and those who find access to quality health care nearly impossible, has yet to be adequately addressed.

Private versus public healthcare

Despite attempts by the government to promote equality, especially in terms of access to health-care, figures still seem to suggest that South Africa's health-care system is dual in nature. Since 1994, divisions within the health sector between rich and poor, African and White, and insured and uninsured, have broadened (Centre for Health Policy, 2007). On the one hand, there is public healthcare, which is cheap and of poor quality, and on the other there is private healthcare, which is unaffordable to the vast majority of the population yet of a very high quality. According to Burger and Grobler (2007), household surveys indicated that cost was the main complaint of private health-care users, whereas users of public services complained of long waiting times, unavailable drugs, incorrect diagnoses and rude staff. The quality divide between private and public healthcare is further intensified due to the shortage of skilled staff in the public sector, due in turn to the low wages offered. Recently-qualified doctors who have completed the compulsory two years of working in public health care generally either move into private practice or leave the country (Banderker and Van Belle, 2006). People without comprehensive private medical insurance are effectively excluded from accessing private healthcare and become reliant on the public health system. This results in a large amount of inequality in quality healthcare provision, based on income.

It is important also to note that access to medical schemes in South Africa is highly unequal. Table 5.29 shows that while 66% of the White population is covered by medical aid (private health insurance), only 7% of the African population belong to these schemes. Since there is no discrimination by medical aid on race, this difference more closely reflects income inequality between races. The proportion of Africans covered by medical aid appears to have decreased since 1996, while the coverage of the White population has remained more stable. In addition, older working-age adults are more likely to have medical coverage, whereas retirement-age individuals are least likely to have it (Koch, 2009). A vicious cycle develops where unemployed Africans living in poverty are unable to access medical aid, and hence quality healthcare, and so suffer greater ill health and are less likely to be employable and productive in the future.

Table 5.29. **Medical scheme coverage in South Africa by racial group**

In percentage

	1996	1999	2004	2007
African	10.0	8.4	7.2	7.3
Coloured	21.7	21.3	18.4	18.9
Indian	29.5	28.9	36.0	31.2
White	68.8	67.8	69.7	66.1

Source: Health Systems Trust.

The duality inherent in South Africa's health-care system is exacerbating inequalities, mainly along racial and geographic lines. Due to high private sector costs and low medical scheme coverage, the majority of South Africans, particularly Africans and the poor, are denied quality healthcare. Populations residing in rural areas also suffer from a lack of adequate public treatment centres, and as a result suffer from greater ill health and are less likely to become productive members of society. The progression of the HIV/AIDS pandemic serves to further increase this divide. At present, government policy does not play enough of a redistributive role in terms of equal access to quality healthcare.

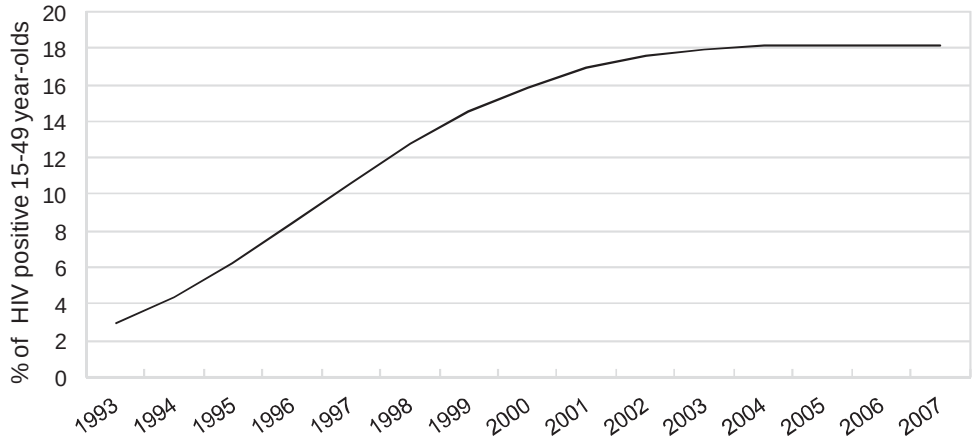
Redistributive impact of fiscal policy

Fiscal policy redistributes resources through tax collection and subsequent social expenditure. South Africa's income tax system is redistributive in nature and levies progressively higher tax rates on higher income earners. Analysing income distribution before and after taxation or social expenditure provides a window through which the effects of redistributive policies can be analysed. In 2006, the Gini coefficient for income before receiving social transfers was 0.69; for income after social transfers it was 0.52; and for income after taxes, it was 0.47 (Van der Berg, 2009b). Despite the large difference social spending makes, the level of inequality after social transfers is still relatively high. The scope is thus fairly limited for decreasing inequality though further fiscal reforms.

Box 5.2. **Impact of HIV/AIDS in South Africa**

One of the fundamental factors placing a severe strain on health-care service delivery in South Africa is the country's high incidence of HIV/AIDS. Although the percentage of 15 to 49 year-olds who are living with HIV/AIDS seems to have reached a plateau, at of over 18%, remains critically high (see figure below). The mortality rate for adult males has increased by 24% between 2000 and 2008, and the rate for adult females has increased by 48%, largely as a result of the spread of HIV/AIDS (figures from Health Systems Trust). Life expectancy, particularly for females, who have the highest infection rate, has been decreasing since 1995. Female life expectancy has dropped by 13 years, from 65 in 1995 to 52 in 2008, while male life expectancy has dropped by eight years, from 57 in 1995 to 49 in 2008 (figures from Health Systems Trust).

The incidence of HIV/AIDS in South Africa for 15-49-year-olds, 1993-2007

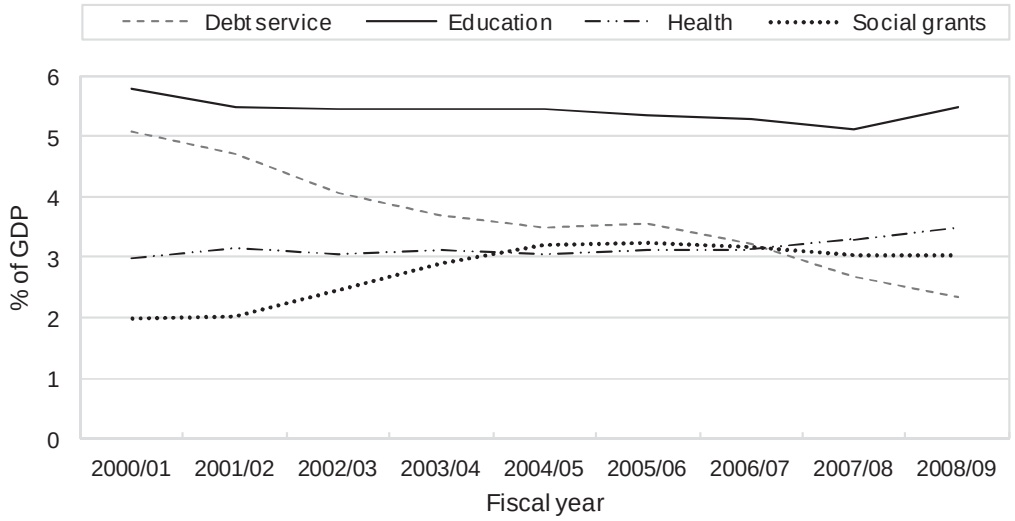


Source: World Bank Development Indicators.

The spread of HIV/AIDS will undoubtedly have an impact on the labour market through slower labour-force growth, increased absenteeism, lost skills, higher staff turnover and decreased productivity (Smit and Ellis, 2008). Labour market size projections carried out by Vass (2005) showed that HIV/AIDS will result in a smaller labour force, and that workers may become both younger and older, due to the prevalence of the illness in 15-49 year-olds. In addition, because women and Africans are disproportionately affected by HIV/AIDS, a decrease in the supply of female and African workers may be predicted (Vass, 2005). The overall impact is hard to quantify, since slower labour-force growth should positively impact unemployment, but higher mortality and ill health will negatively affect productivity. However, as HIV/AIDS is most prevalent among the unskilled and semi-skilled portion of the labour market, according to Vass (2005) the distribution of HIV infections and mortality will serve to impact economic indicators significantly less than predicted by the World Bank. While GDP is generally expected to fall, GDP per capita may not, and may in fact even rise over time as the population losses outweigh the productive losses (Smit and Ellis, 2008). At a micro level, the loss of breadwinners lowers household income and pushes many families below the poverty line. This is likely to exacerbate inequality between races and the socio-economic divide.

There was a large redistributive shift in social spending towards the poor post-1994, and pro-poor targeting of social spending has continued to be a priority. Social spending impacts on inequality directly, through measures such as social grants, or indirectly, through human capital gains from health care or education. Expenditure as a percentage of GDP shows the relative size of various measures of social expenditure (Figure 5.10). While education spending has remained the largest, social spending is rapidly catching up, fuelled by greater tax receipts and lower debt servicing. How effective these expenditures are depends on the targeting of the population as well as on the transfer of this expenditure into improved living conditions for the poor.

Figure 5.10. **South African expenditure items as a percentage of GDP since 2000**



Source: South African National Treasury (various years).

The country's health expenditure varies widely between provinces and between the private and public sector. In 2007, the Western Cape was spending the highest amount per capita on health (ZAR 1 272), despite containing a relatively small proportion of the country's poor. Conversely, Limpopo was spending the smallest amount per capita on health (ZAR 720), despite containing a relatively large proportion of the poor.[17] The average amount spent on each person in the private sector is more than 5 times higher than the amount spent on each person in the public sector, due mostly to the relatively large number of people using public healthcare. This ratio increased between 1997 and 2002, but started to decrease after that year, showing an improvement in the allocation of health resources.

In an attempt to address the variable quality of education across schools and provinces, the government has attempted to shift the distribution of resources towards formerly disadvantaged schools and poorer provinces. Gauteng and the Western Cape received the smallest increases between 1999 and 2007, while the North-West and KwaZulu-Natal received relatively large increases.[18] Large resource shifts towards previously disadvantaged schools in poor areas have failed to address the unequal quality of education, as discussed previously. Van der Berg (2009a) used regression analysis to show that variances in grade 12 pass rates cannot be explained by the level of school fees,

or government resource allocations. So while educational spending has become more redistributive, the quality of education received remains unrelated and unequal.

South Africa has been fairly successful at targeting the poor through social expenditure. Table 5.30 illustrates how concentration ratios remain negative and decreasing across most categories of expenditure. In comparison, amongst a group of 30 developing countries the average value for school education was 0.01, and for tertiary education 0.39, and not a single negative value was found for health expenditure (Yaqub, 1999). Social grants are the most successfully targeted form of social spending, due largely to the means-testing required to qualify. Health expenditure is also well targeted, as those with higher incomes shun public healthcare in favour of the higher-quality private sector (Van der Berg, 2009b). Housing still exhibits some bias away from the poor, although this decreased between 2000 and 2006. This is a result of housing subsidies largely benefiting urban residents and excluding some of the poorest of the population living in rural areas (Van der Berg, 2009b).

Table 5.30. **South African concentration ratios by social sector**[a]

	Education		Social grants				Health			Housing	Total
	School	Tertiary	Child support	Disability	Old age	Total	Clinics	Hospitals	Total		
2000	-0.121	0.528	-0.247	-0.291	-0.412	-0.371	-0.177	-0.105	-0.118	0.16	-0.112
2006	-0.128	0.641	-0.318	-0.288	-0.436	-0.359	-0.257	-0.103	-0.137	0.07	-0.152
Change 2000-06 (in %)	5.8	21.4	28.7	-1	5.8	-3.2	45.2	-1.9	16.1	-56.3	35.7

a) Concentration ratios are similar to Gini coefficients and describe the distribution of expenditure by population income. A positive value means spending is biased towards the wealthy, a value of zero means no discrimination by income, and a negative value means spending is biased towards the poor.

Source: Van der Berg (2009a).

The least redistributive form of social spending is that on tertiary education. In an attempt to encourage the development of scarce skills, tertiary education subsidies are 2.5 times larger for the natural sciences than for the humanities and social sciences. Since fewer African students register to study in the natural sciences, the allocation of resources becomes biased towards White students (Van der Berg, 2009b). Barriers to entry into tertiary education often prove too high for poorer students, so tertiary institutions are populated mainly by more affluent learners. Poorer students attend poor-quality schools and as such are unlikely to perform to the standard required to enter tertiary education. For those whose performance is high enough, the opportunity cost of not earning any wages while studying is often too high, as is the actual cost of education itself. Bursaries and scholarships are available to poorer students but do not make enough of a difference to alter the demographics of tertiary institutions.

Conclusion

The post-Apartheid labour market has not translated South Africa's strong macroeconomic and growth performance into substantially improved inequality and poverty outcomes. However, an additional benefit of strong macroeconomic performance and economic growth is that it generates tax revenue for use by the state on social expenditures. The last two sections of this report have shown that the state has used

increased tax revenues to follow an aggressive set of social expenditure policies. On the social assistance side, these expenditures have been successful and key to poverty alleviation efforts. There have also been continual improvements in access to services such as water, electricity and housing. However, in terms of human capital policies, this revenue has not translated into improved education, training and health services. The labour market is demanding an increasingly skilled and productive workforce, and the weakness of the country's human capital policies continues to leave those who were particularly disadvantaged by Apartheid poorly equipped to face this future.

Notes

1. Figures for Indians in all tables are unlikely to be representative measures due to the small sample sizes in most surveys.
2. Part-time employees work less than 35 hours per week. The terms "temporary' and "casual' are often used interchangeably and describe work with a fixed end date.
3. As detailed in Section 5.3, part-time workers are covered only by minimum wages set by the Employment Conditions Commission (ECC), and the Basic Conditions of Employment Act (BCEA).
4. The 2003 International Conference of Labour Statisticians specifies a broader definition including those working within formal businesses without a labour contract, but this paper uses the narrower definition currently specified by Statistics South Africa (Devey et al., 2008). There are several ways of registering a business such as, registration at Registrar of companies, commissioner of unemployment, South African medical and dental council or Commissioner of Workmen's Compensation.
5. The concepts of self-employment and informality are not necessarily mutually exclusive. A worker who is self-employed has created his own employment opportunity and is not accountable to an employer. An informal worker works for a company or entity that is not registered. An informal worker could be self-employed and someone working for themselves could be operating informally.
6. Using October 2005 exchange rates, South African Reserve Bank.
7. Informal traders were often viewed as unsightly and hazardous to public health, and there were frequent clearances of street vendors (Kingdon and Knight, 2008).
8. The self-employment figures include the formal and the informal sector.
9. The data in this section are drawn from Leibbrandt et al. (2010).
10. This figure includes social grants administration and welfare services such as old-age homes and drug treatment centres. If only direct cash transfers to households are considered, these accounted for an estimated 3.3% of GDP in 2009/10.

11. Since means-testing is done at the individual level, and quintiles are assigned at the household level, it is possible for a poor individual residing in a relatively wealthy household to receive a means-tested grant.

12. Educational attainment does not reflect years in school, but rather the highest grade achieved. Those aged 21-30 were measured, as they should have completed their schooling by this age, and this age bracket best reflects the most recent trends in education.

13. Enrolment ratios are the number of students enrolled in a particular grade (irrespective of age) divided by the population who should be enrolled in that grade according to their age.

14. A matric certificate is for the final exam in grade 12, set externally by the Department of Education, which signifies the end of secondary schooling (high school) and is most often a minimum requirement for access to tertiary education.

15. SETA refers to Sector Education and Training Authorities. There are various SETAs catering to different sectors in the economy.

16. User fees refer to payments made by patients for health services, as opposed to services provided free of charge. They are normally adjusted based on the patient's income level.

17. This data comes from the Health Systems Trust database.

18. Data comes from the Department of Education and the Reserve Bank.

References

Anderson, K., A. Case and D. Lam (2001), "Causes and Consequences of Schooling Outcomes in South Africa: Evidence from Survey Data", *Social Dynamics*, Vol. 27, No. 1.

Aron, J., B. Kahn and G. Kingdon (2008), "South African Economic Policy under Democracy: Overviews and Prospects", in J. Aron, B. Kahn and G. Kingdon (eds.), *South African Economic Policy under Democracy*, Oxford University Press, Oxford.

Banderker, N. and J.P. Van Belle (2006), "Mobile Technology Adoption by Doctors in Public Healthcare in South Africa", University of Cape Town, Cape Town.

Banerjee, A., S, Galiani, J, Levinsohn, Z. McLaren and I. Woolard (2008), "Why has Unemployment Risen in the New South Africa?", *Economics of Transition*, Vol. 16, No. 4, Oxford: Blackwell Publishing, pp. 715-740.

Benjamin, P. (2008), "Informal Work and Labour Rights in South Africa", Development Policy Research Unit, University of Cape Town, Conference on "The Regulatory Environment and its Impact on the Nature and Level of Economic Growth and Development in South Africa".

Benjamin, P. and C. Gruen (2006), "The Regulatory Efficiency of the CCMA: A Statistical Analysis of the CCMA's CMS Database", Development Policy Research Unit Working Paper No. 06/110, University of Cape Town, Cape Town.

Benjamin, P. and J. Theron (2007), "Costing, Comparing and Competing: Developing an Approach to the Benchmarking of Labour Market Regulation", Development Policy Research Unit Working Paper No. 07/131, University of Cape Town, Cape Town.

Bertrand M., S. Mullainathan and D. Miller (2000), "Public Policy and Extended Families: Evidence from South Africa", NBER Working Paper No. 7594.

Bhorat, H. *et al*. (2001), "Fighting Poverty: Labour Markets and Inequality in South Africa", UCT Press. Cape Town, South Africa.

Bhorat, H. and P. Lundall (2002), "Employment, Wages and Skills Development: Firm Specific Effects – Evidence from Two Firm Surveys in South Africa", Working Paper No. 9654, Development Policy Research Unit, University of Cape Town, Cape Town.

Bhorat, H., P. Lundall and S. Rospabé (2002), "The South African Labour Market in Economic and Legislative Considerations", ILO Employment Paper No. 2002/32, International Labour Organisation (ILO), Geneva.

Bhorat, H., K. Pauw and L. Mncube (2009), "Understanding the Efficiency and Effectiveness of the Dispute Resolution System in South Africa: An Analysis of CCMA Data", Development Policy Research Unit Working Paper No. 09/137, University of Cape Town, Cape Town.

Boccara, B. and P. Moll (1996), "Labour Market Flexibility and Industrial Councils in South Africa", Africa Region, World Bank.

Burger, R. and C. Grobler (2007), "Have Pro-Poor Health Policies Improved the Targeting of Spending and the Effective Delivery of Health Care in South Africa?", Development Policy Research Unit Working Paper No. 07/122, University of Cape Town, Cape Town.

Burger, R. and I. Woolard (2005), "The State of the Labour Market in South Africa after the First Decade of Democracy", Centre for Social Science Research Working Paper No. 133, Southern African Labour and Development Research Unit, Cape Town.

Calmfors, L. and J. Driffil (1988), "Bargaining Structure, Corporatism, and Macroeconomic Performance", *Economic Policy: A European Forum,* April.

CCMAil (2005), Special CCMAil edition, July 2005, available online at *www.ccma.org.za/UploadedMedia/CCMAil_July%202005Special%20Edition.doc*, accessed 10 September 2009.

Centre for Health Policy (2007), "Commercialisation and Extreme Inequality in the South African Health System", Health Policy Unit Equity Briefing.

Chamberlain, D. and S. van der Berg (2002), "Earnings Functions, Labour Market Discrimination and Quality of Education in South Africa", Stellenbosch Economic Working Paper No. 2/2002.

Department of Home Affairs (2008), "Immigration Act (13/2002): Specific Professional Categories and Specific Occupational Classes, No. 412", *Government Gazette,* Vol. 514, No. 30975, Government Printing Works, Pretoria, 15 April 2008.

Department of Public Works, Republic of South Africa (available at *www.epwp.gov.za*).

Department of Public Works (2009), "Reaching the One Million Target", *Expanded Public Works Programme Five-year Report, 2004/05–2008/09*, Department of Public Works, available at *www.epwp.gov.za/downloads/EPWP_Five_Year_Report.pdf.*

Department of Trade and Industry (2004), "Employment", Research Report for the Department of Trade and Industry, South Africa.

Devey, R. *et al.* (2008), "Section 6: The Informal Economy", in A. Kraak and K. Press (eds.), *Human Resources Development Review 2008*. HSRC Press.

Dieltiens, V. and S. Meny-Gibert (2008), "School Drop-out: Poverty and Patterns of Exclusion", in S. Pendlebury, L. Lake and C. Smith (eds.), .*South African Child Gauge 2008/2009*, Children's Institute, University of Cape Town, Cape Town.

Godfrey, S., J. Maree and J. Theron (2006), "Presently There Is Only One Sectoral Determination Applicable to the Manufacturing Sector Which Is for the Clothing and Knitting Sector".

Godfrey, S., J. Theron and M. Visser (2007), "The State of Collective Bargaining in South Africa: An Empirical and Conceptual Study of Collective Bargaining", Development Policy Research Unit Working Paper No. 07/130, University of Cape Town, Cape Town.

Hall, K. and S. Giese (2008), "Addressing Quality through School Fees and School Funding", in S. Pendlebury, L. Lake and C. Smith (eds.), *South African Child Gauge 2008/2009*, Children's Institute, University of Cape Town, Cape Town.

Hemson, D. (2007), Mid Term Review of the Expanded Public Works Programme: Synthesis Report, Human Sciences Research Council: Pretoria.

Hertz, T. (2004), "Have Minimum Wages Benefited South Africa's Domestic Service Workers?", Development Poverty Research Unit, University of Cape Town in association with Trade and Industrial Policy Strategies, Cornell University, African Development and Poverty Reduction: Forum Paper.

International Labour Organisation (2008), "Key Indicators of the Labour Market", 6th edition, International Labour Organisation, Geneva.

Keswell, M. (2004), "Education and Racial Inequality in Post Apartheid South Africa", Paper presented at the DPRU/FES Second Annual Conference on Labour Markets.

Kingdon, G. and J. Knight (2008), "Unemployment: South Africa's Achilles Heel", in J. Aron, B. Kahn and G. Kingdon (eds.), *South African Economic Policy under Democracy*, Oxford University Press, Oxford.

Klasen, S. and I. Woolard (2009), "Surviving Unemployment without State Support: Unemployment and Household Formation in South Africa", *Journal of African Economies*, Vol. 18, No. 1, pp. 1-51.

Koch, S. (2009), "Equity in Private Health Insurance Coverage in South Africa: 2002-2007", Working paper No.16, August 2009, University of Pretoria, Department of Economics.

Leibbrandt, M., I. Woolard, A. Finn and J. Argent (2010), "Trends in South African Income Distribution and Poverty since the Fall of Apartheid", OECD Social, Employment and Migration Working Paper No. 101, OECD Publishing, Paris, January.

Levinsohn, J. (2008), "Two Policies to Alleviate Unemployment in South Africa", CID Working Paper No. 166, A publication of the CID South Africa Growth Initiative.

Macun, I. (1997), "Evolving Practices in Industrial Relations and Collective Bargaining: The SALFS Results", Sociology of Work Unit, University of Witwatersrand, Presentation at the Labour Market and Enterprise Performance in South Africa Conference.

Maloney, W. (2002), "Informality Revisited", mimeo, World Bank, Washington, DC.

McIntyre, D. and L. Gilson (2002), "Putting Equity in Health Back onto the Social Policy Agenda: Experience from South Africa", *Social Science and Medicine,* Vol. 54, pp. 1637-1656.

Moll, P. (1993), "Black South African Unions: Relative Wage Effects in International Perspective", *Industrial and Labour Relations Review,* Vol. 46, No. 2, pp. 245-261.

Moll, P. (1995), "Compulsory Centralisation of Collective Bargaining in South Africa", mimeo, Chicago, December 17.

Moll, P. (1996), "A Proposal for Research into Unemployment in South Africa", *Mission Economist.*

National Treasury (2003), *Budget Review,* Government Printer, Pretoria.

National Treasury (2005), *Budget Review,* Government Printer, Pretoria.

National Treasury (2009), *Budget Review,* Government Printer, Pretoria.

Nattrass, N. (1997), "Business and Employer Organisations in South Africa", Occasional Report No. 5, Employment and Training Department, International Labour Office, Geneva.

OECD (2008), *South Africa: Economic Assessment 2008*, Vol.2008/15, OECD Economic Surveys, OECD Publishing, Paris.

Pauw, K., M. Oosthuizen and C. van der Westhuizen (2008), "Graduate Unemployment in the Face of Skills Shortages: A Labour Market Paradox", *South African Journal of Economics*, Vol. 76, No. 1.

Posel, D., J. Fairburn and F. Lund (2004), "Labour Migration and Households: A Reconsideration of the Effects of the Social Pension on Labour Supply in South Africa", Ninth Annual Conference on Econometric Modelling for Africa, 30 June to 2 July 2004.

Portfolio Committee on Finance (2008), "Statistics South Africa Revamps Labour Force Survey", Government information, News from Parliament.

Rankin, N. (2006), "The Regulatory Environment and SMMEs. Evidence from South African Firm Level Data", Development Policy Research Unit Working Paper No. 06/113, University of Cape Town, Cape Town.

Rosenthal, T., I. Macun and G. Standing (1997), "South African Enterprise Labour Flexibility Survey – Report on Worker Representative Survey 1995", Presentation at the Labour Market and Enterprise Performance in South Africa Conference.

Roskam, A. (2007), "An Exploratory Look into Labour Market Regulation", Development Policy Research Unit Working Paper No. 07/116, University of Cape Town, Cape Town.

Schultz, T.P. and G. Mwabu (1998), "Labour Unions and the Distribution of Wages and Employment in South Africa", *Industrial and Labour Relations Review*, Vol. 51, No. 4.

Smit, B. and L. Ellis (2008), "The Macroeconomic Impact of AIDS and ART", in J. Aron, B. Kahn and G. Kingdon (eds.), *South African Economic Policy under Democracy*, Oxford University Press, Oxford.

Soskice, D. (1990), "Wage Determination: The Changing Role of Institutions in Advanced Industrialised Countries", *Oxford Review of Economic Policy*, Vol. 6, No. 4.

South Africa.info: Gateway to the Nation: "South Africa's Labour Market", available at *www.southafrica.info/business/economy/policies/labour.htm*, accessed 1 September 2009.

Southern Africa Labour and Development Research Unit (SALDRU) (2008), "National Income Dynamics Study 2008", University of Cape Town, Cape Town.

Standing, G. (1997), "Labour Market Dynamics in South African Industrial Firms: The South African Labour Flexibility Survey", International Labour Organisation, Presentation at the Labour Market and Enterprise Performance in South Africa Conference.

Statistics South Africa (2005), "Labour Force Survey, 2005".

Van der Berg, S. (2009a), "The Persistence of Inequalities in Education", in J. Aron, B. Kahn and G. Kingdon (eds.), *South African Economic Policy under Democracy*, Oxford University Press, Oxford.

Van der Berg, S. (2009b), "Fiscal Incidence of Social Spending in South Africa, 2006", Stellenbosch Economic Working Paper No. 10/09, Stellenbosch: Bureau of Economic Research and Department of Education, Stellenbosch University.

Vass, J. (2005), "A Review of Labour Markets in South Africa: The Impact of HIV/AIDS on the Labour Market", Employment and Economic Policy Research Programme, Human Sciences Research Council, Cape Town.

Yaqub, S. (1999), "How Equitable is Public Spending on Health and Education?", Background paper to World Development Report, No. 2000/1, Poverty Research Unit, Sussex University, Sussex.

Chapter 6

What role for policies in tackling inequality?

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In recent years, the BCIS governments have incorporated the goal of reducing poverty and inequality into their approaches to more sustainable growth and have enacted some reforms in that direction. Tackling inequality traps requires improving economic opportunities for all, and this covers a variety of policy actions. Labour market and social policies have an important role to play, as they directly or indirectly affect household incomes. In countries with significant labour market segmentation between formal and informal employment, policies and measures directed exclusively at the formal labour market have a small influence, limiting their impact on reducing poverty and inequality. But, labour market policies can have a considerable impact on maintaining this labour market duality by making employment expensive and favouring underemployment and informality. In this kind of configuration, they could even become counterproductive with respect to reducing poverty and inequality.

Brazil, China, India and South Africa have in common, although at different degrees, limited public service provision, low coverage of social insurance schemes and high incidence of informality, which makes social assistance or social safety a key component of social protection for poverty alleviation. This refers to all non-contributory transfer programmes targeted to the poor and the most vulnerable. The emphasis has been given to the development of public work schemes, as in India and South Africa, and to cash transfers, being conditional as the case of Brazil, or not as the South African social grants.

Introduction

Reducing inequality and promoting equal opportunity are fundamental issues for development and sustainable growth. Institutions and policies have a role to play in creating a more equal playing field for all members of society. Policy can in particular influence the distribution of assets, economic opportunities, and political voice, but it can also create conditions for a more equal distribution of income and other resources through specific and targeted measures.

The purpose of this chapter is to discuss the redistributive role of different labour market and social policies put in place in Brazil, China, India and South Africa (the BCIS countries) in the past decade, analysing the advantages and disadvantages of the instruments in more general use. To a greater extent than in most OECD countries, in the BCIS countries the distinction between labour market policies and social policies is not always clear, as they are very interrelated, and different measures can be classified under both types of policy areas.

The labour market and social conditions prevailing in BCIS differ from the conditions observed in most OECD countries in ways that clearly affect the key objectives of labour market and social policies, their key target groups and their impacts. First, the BCIS countries still have high – albeit declining – proportions of the population who live in extreme poverty and are vulnerable to any external shock. Second, labour market and social policy institutions are underdeveloped compared to most OECD countries. Third, informality in the labour market is widespread, although it varies significantly across countries. Fourth, the administrative capacity is limited, making governmental action and its monitoring more difficult.

The business climate is also generally less stable in the BCIS countries, so there is a need to promote broader development policies that affect the production system *(i.e.* macroeconomic stability, development of the domestic market and strong product market competition, improving education and training, etc.). In this context, to be effective and comprehensive, labour market and social policies have to be integrated into the general development agenda on a country-specific base, as their impact may depend very much on past history as well as on the overall existing framework in each country.

The chapter is structured in three sections. The first gives a comparative account of the available labour market and social policy instruments used in BCIS countries, focussing in each country on the measures they relied on the most. Section 6.2 selects three policy areas that are often the focus in emerging economies in general, and in BCIS countries in particular, for instruments that are oriented at reducing poverty and tackling income inequality, and it discusses in more detail their poverty-alleviation and redistributive effects. In particular, the focus is on public works programmes, non-contributory social assistance programmes and conditional cash transfers. A third section concludes.

6.1. Main labour market and social policies affecting redistribution

Labour market institutions comprise the regulations, practices and policies – both formal and informal, written and unwritten – that affect how the labour market works in each country. They influence labour outcomes both in terms of employment access and the quality of jobs and in terms of labour incomes. On the other hand, as labour income is the main source of income for most households, the existing labour market institutions

and policies in each country in turn play a key role in determining and shaping income inequalities among different groups of the working age population.

Details on labour market regulations and policies in BCIS countries (*i.e.* ranging from employment contracts regulation, firing and hiring conditions, working hours, wage setting and wage flexibility, collective bargaining, and active labour market policies, when existing), was given in the country chapters and will not be repeated here.[1] The discussion below rather focuses on how some policies can better combine flexibility and security for workers in order to assure a better income distribution.

Social protection systems include contributory social insurance programmes (*i.e.* old-age pensions, health and unemployment insurance) and non-contributory social assistance programmes financed out of general taxation, such as cash transfers (*i.e.* social pensions, child allowances), in-kind benefits, certain types of price subsidies, public works programmes and fee waivers for essential services (Grosh *et al.*, 2008). The main features of social protection systems in BCIS are summarised in Box 6.1.

Box 6.1. **Main features of the social protection systems in BCIS**

Social protection systems can be described using three main dimensions: *i)* the relative importance of social insurance versus general public expenditure and/or social assistance; *ii)* the overall coverage of the schemes; and *iii)* the unification/fragmentation of the schemes.

Brazil has a comprehensive social insurance scheme financed by social contributions, which covers old-age pensions, maternity, disability, and work-accident benefits for all private sector employees and the self-employed, and their dependents. There is also an unemployment insurance scheme. Most public servants are covered by their own social security schemes. According to PNAD data, 52% of the workers were affiliated to social security in 2007. Public health care is provided on a universal basis and financed out of general taxation. Social protection also includes a (rather generous) non-contributory basic old-age pension, as well as a conditional cash transfer scheme for the poorest (*Bolsa Família*).

China has various social insurance schemes for medical care, pension, unemployment, etc. Most schemes are administered at a decentralised level (county, municipality), and contribution rates often vary across provinces or even within the same province, thus limiting risk-pooling. Until recently, social insurance schemes covered only urban areas, but efforts have been made to increase coverage in rural areas under different types of schemes, largely subsidised. According to Zhu (2009), coverage rates in 2008 were 55% for the urban basic pension and 85% for urban and rural medical care. A means-tested minimum subsistence (*Dibao*) is also provided in urban and rural areas.

India has a very fragmented social protection system. A number of social insurance schemes exist, all of very limited coverage. The main one provides health insurance and maternity benefits to highly-skilled employees (earning wages above a certain ceiling) in large and medium-sized businesses (it covered 8.7 million workers in 2006, compared with about 400 million employed persons in 2004). A number of contributory schemes are also run by the state governments (often with funding from the central government) for workers in small enterprises, but their coverage is limited to certain areas and population groups. The most important non-contributory safety nets for poor households are the national rural public employment programme and product subsidies (on rice and fuel). A large number of cash transfer programmes for poor households are also available, but most of them have very limited coverage.

South Africa: the only social insurance scheme is for unemployment. The pension system is a fully-funded scheme managed by private pension funds. According to the LFS, in 2007 about 75% of the workers were covered by a pension scheme or unemployment insurance. Public health expenditure is financed out of general taxation. Social assistance is rather developed, notably through a (relatively generous) basic old-age pension, and means-tested child allowances and disability grants (covering, respectively, 5%, 10.5% and 3% of the population in 2008 (source: National Income Dynamics Study). Public works programmes are also available for the unemployed.

Source: OECD (2010a).

In terms of both coverage and generosity, social protection is lower in BCIS than in most OECD countries. Social expenditures as a percentage of GDP are also lower, although disparities among countries are large (Figure 6.1). Public social spending in terms of GDP varies considerably, ranging from 15% in Brazil (three-quarters of the OECD average) to less than 5% in India (four times lower than the OECD average) (Panel A). Moreover, there are large cross-country differences in the division of social spending between social insurance (contributory schemes financed out of employer and/or employee social contributions) and social assistance (programmes financed out of general taxation). Eligibility for social insurance schemes differs across countries and programmes, but is crucially based on contribution requirements. Social assistance programmes, in contrast, tend to be means-tested and targeted to the most vulnerable individuals and households, independent of their labour market status.

In all countries, social insurance accounts for the bulk of non-health public social expenditure (Panel B). This mainly reflects the role of contributory pension schemes, while unemployment insurance tends to account for a rather small part of total social insurance expenditure. Social assistance expenditures in BCIS remain very limited, especially when considering the large shares of the poor in the total population. With the exception of South Africa, social assistance represents less than 2% in terms of GDP, in line, however, with some OECD countries *(i.e.* Chile, Mexico and Turkey).

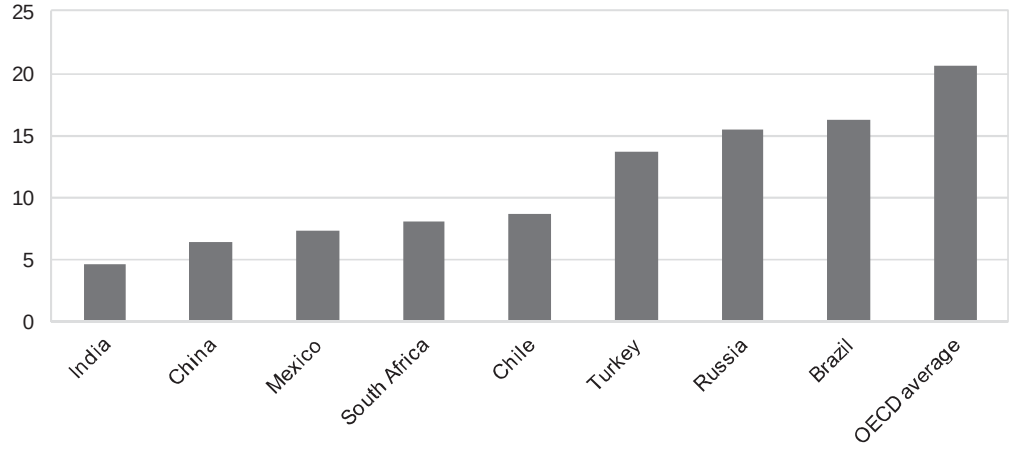
As a result, coverage of social insurance tends to be limited in BCIS, although with considerable variation. It is, for example, high in South Africa – close to 80% of the employed population – but very limited in India. There is also diversity in the scope and degree of fragmentation of social insurance systems. The Brazilian system is the most comprehensive (*i.e.* covers old-age pensions plus maternity, disability and work accident benefits for all private-sector employees and the self-employed), whereas in South Africa it covers only unemployment.[2] In China, despite growing coverage, the existing schemes are fragmented, *de facto* limiting the pooling of risk across individuals and the redistributive impact (*i.e.* there are three different medical insurance schemes for urban employees, non-salaried urban residents and farmers, managed by two different authorities, each with its own infrastructure; the contribution rates and benefits of most schemes vary across provinces or even localities). In India, besides having a very low coverage, social insurance schemes are also very fragmented.

Taken together, the four BCIS countries have recently developed a range of labour market and social policy instruments, some of which are common, while others have emerged from the specific conditions of one or the other country. Table 6.1 gives an overview of the main instruments in place in the four countries and shows the different focus and priorities of these instruments in each country. Conditional cash transfer systems are, for instance, much more important in Brazil (and other Latin American countries). Public works programmes are of particular importance in India, and most recently in South Africa.

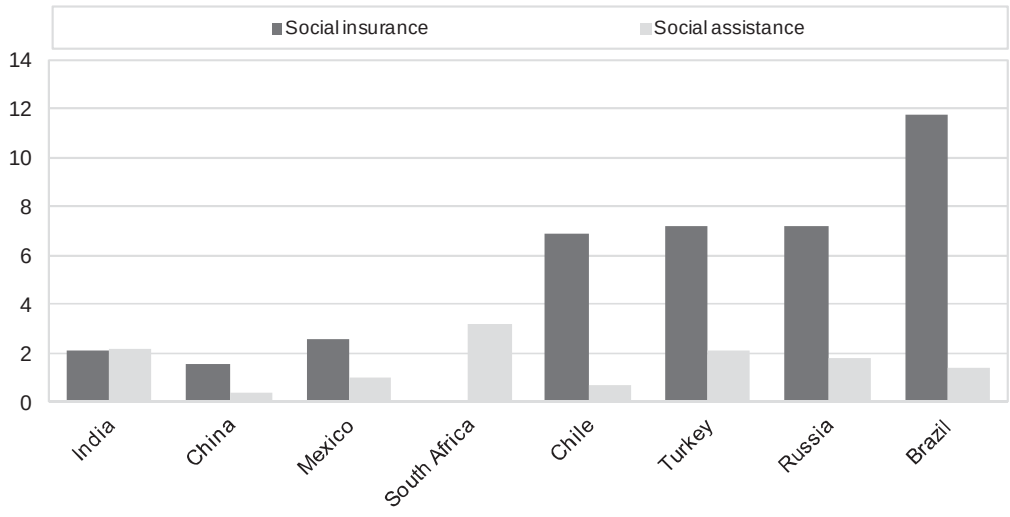
Figure 6.1. **Public social expenditure in selected OECD and BCIS countries**

Percentage of GDP

Panel A. Total public social expenditure, second half of the 2000s[a, b]



Panel B. Public social expenditure (excluding health)[c]



StatLink http://dx.doi.org/10.1787/888932332341

a) 2005 for Brazil, Mexico, Turkey and OECD average, 2006-07 for India and South Africa, 2007 for Chile and the Russian Federation, 2008 for China.

b) Data were taken and/or constructed from various sources, in an effort to approach as far as possible the definition used in the *OECD Social Expenditure Database (SOCX)*, which covers old-age, survivors, and incapacity-related benefits, as well as family, health, active labour market policies, unemployment, housing and others.

c) Data on social insurance is not available for South Africa.

Source: OECD (2010a).

Table 6.1. **Instruments more often used in BCIS countries to reduce poverty and inequality**

	Brazil	China	India	South Africa
Employment protection	+	+	+	+
Unemployment insurance	++	+		+
Minimum wages	+	+	+	+
Old-age contributory pension	++	+	+	+
Old-age non-contributory pensions	++	+	+	++
Other social grants (*i.e* disabled and children)		++	+	+++
Public works programmes			+++	++
Conditional cash transfers	+++			

Note: + Indicates the measure is in place but covers just a small part of the concerned population; ++ Indicates the measure is in place and covers a large part of the concerned population; +++ Indicates the country has given priority to these actions.

Source: OECD elaboration from national sources.

Combining flexibility with security for all workers

Finding a balance between allocating labour to its most productive use and protecting workers is a key priority for policy makers. This can be achieved by different policy measures, but mainly through employment protection – the rules governing the firing of workers and the use of temporary contracts – and income support labour market policies. In countries characterised by large inequalities, employment instability and poor labour conditions, as in most developing and emerging economies, governments tend to use more the first type of measure to protect workers against the risk of unemployment (by both making dismissal more difficult and offering severance payments), whereas active labour market policies more oriented to supporting the job search and improving the employability of workers have been less developed (Berg and Kucera, 2008).

In BCIS countries the focus has been to give priority to job security rather than improving labour force skills and employability, although this is done to varying degrees. As a result, only the better-off workers, generally in the formal sector, have some kind of protection in case of dismissal, whereas for the majority of workers losing their jobs would often leave no choice other than accepting worse working conditions, often in the informal sector, to reintegrate the labour market. Labour reallocation then imposes large welfare costs on workers and an inefficient job matching that negatively affects labour productivity.

Governments can play an important role in avoiding these negative effects by ensuring workers against the risk of unemployment through different income support mechanisms. Indeed, labour market policies should then progressively evolve from protecting jobs to protecting workers, both in the formal as in the informal sector. This mainly means fostering a shift from the current protection mechanisms, based on employment protection, towards more comprehensive income-support mechanisms for all.

From employment protection to income-support measures

Employment protection, defined as the rules governing the firing of workers and the use of temporary workers, is justified in order to protect workers from arbitrary actions, including dismissal by their employers. Strict employment protection regulations may also have positive impacts for firms by encouraging longer working relationships between firms and workers, facilitating firm and workforce stability and building-up firm-specific human capital. However, by restricting labour turnover, employment protection also restricts a firm's ability to respond quickly to changes in technology and demand (Venn, 2009).

The OECD Employment Protection Legislation indicator (EPL) is used to measure the strictness of employment for OECD countries. This is a synthetic indicator that quantifies the costs and procedures involved in hiring and dismissing workers on permanent contracts as well as fixed-term and temporary contracts.[3] There are other policies and institutions besides employment protection legislation that affect labour market flexibility, including regulations on working hours and part-time contracts, as well as policies affecting wage settings that are not captured in the OECD indicator.

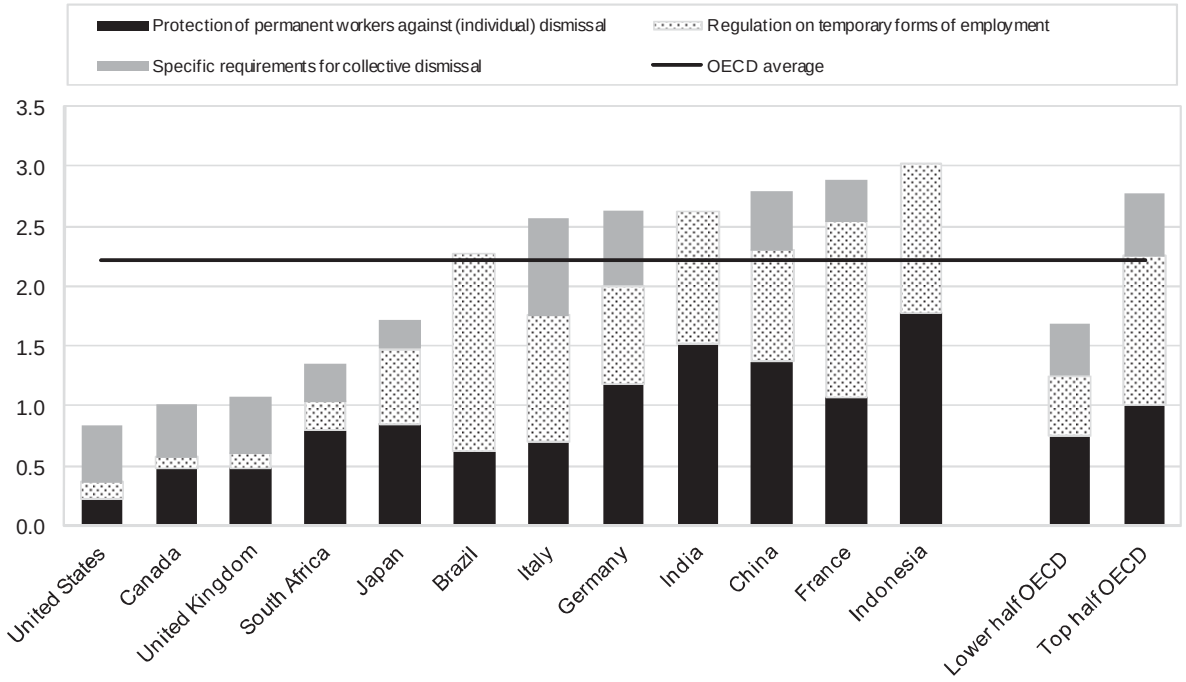
Research on the impact of the EPL indicator in OECD countries has found that overly strict labour market regulations can have a negative impact on labour flows, reducing the employment prospects for some groups of the population (mainly youth). Strict EPL also tends to encourage informal employment and dualism in the labour market and to hinder productivity and economic growth (Bassanini *et al.*, 2009).

The EPL indicator has also been compiled recently for non-OECD countries, showing that the overall level of stringency of employment protection varies significantly across countries (Figure 6.2). Whereas in Brazil the employment protection regulation is similar to the OECD average, "de jure" regulation seems excessively strict in India and China, but is below the OECD average in South Africa.

This variation of the overall stringency of employment protection amongst BCIS is mainly due to the component consisting of the cost of the individual dismissal of regular workers. In particular, regulation of individual dismissal is restrictive in both China and India, reflecting excessive notification or time-consuming requirements that make it extremely difficult to lay-off workers; it is below the OECD average in Brazil and South Africa. In China, EPL is stricter for open-ended labour contracts, with procedural requirements that are cumbersome, but the rules on fixed-term contracts were until recently very flexible, allowing cumulated job durations of up to ten years. The new Labour Law of 2008, however, restricts that practice to no more than two consecutive contracts (Box 6.2).

Severance payments are also high in China, exceeding all OECD countries, and to a lesser extent in India (in the top third of OECD countries, together with Indonesia) (OECD, 2010a). For these reasons, regulation related to employment protection has often been seen as too restrictive in India. This is put forward by some as an explanation of the high informality rate as well as the difficulty for small firms to expand and create employment (*i.e.* Ashan and Pages, 2007; OECD, 2007; Dougherty, 2009). Although there is evidence that labour regulations have had an influence on limiting Indian firms' size and their capacity to generate employment, mainly in the manufacturing sector, other factors have also had a non-negligible impact (*i.e.* the lack of access to electricity and other amenities).[4]

Figure 6.2. **Strictness of employment protection legislation in selected OECD and non-OECD countries, 2008**[a]



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a) The EPL indicator ranges from 0-6 from least to most restrictive.

Source: *OECD Database on Employment Protection Legislation*.

Box 6.2. **The 2008 labour reform in China**

As part of its agenda for a "Harmonious Society", the Chinese government started to modernise labour legislation in 2008 by introducing three new laws:

1) *The Labour Contract Law*, which makes mandatory the use of written contracts (*i.e.* fixed-term, open-ended or for a specified job), but introduces a limitation of two years on the use of fixed-term contracts. It also instructs the Labour Inspectorate – under Labour Bureaus at county level and above – to oversee the labour contract system and to respond to complaints from workers and trade unions, and lays down a revised, sharpened and much more detailed version of the employment protection rules briefly outlined in the 1994 Labour Law.

2) *The Law on Arbitration and Mediation in Labour Disputes*, which specifies the procedures workers and trade unions can use to file complaints against employers in the labour inspectorate or courts.

3) *The Employment Promotion Law*, which makes the government responsible for employment and for providing employment services, unemployment insurance, vocational training and active labour market programmes. It also rules out discrimination in employment, notably when it is based on gender, ethnicity, disability and rural versus urban residence.

One of the main purposes of these new laws, and especially the Labour Contract Law, was to promote the formalisation of individual labour relations and to ensure that a set of basic rules are consistently applied. Recognising the difficulty of this task, authorities at the national, provincial and city levels have followed-up the launching of the three laws with many further regulations and implementation instructions during 2008 and 2009.

Although it is too early to assess the success or failure of these reforms, it appears that they have stimulated a process of development of labour relations across the country, including raising public awareness. It is widely expected that this legislation will facilitate the improvement of the working conditions of many low-skilled workers, although the key is how effectively these new laws will be enforced.

Some authors have argued that removing excessive job protection can contribute to reduce the differences between the formal and the informal sector and boost the creation of more and better jobs, also improving the job prospects for the most vulnerable groups (*i.e.* Heckman and Pages, 2000; Pages *et al.*, 2009). The arguments for this are mainly the following: *i)* there could be spill-over effects of regulations in the formal sector; *ii)* if regulation is excessive, firms may have incentives to stay small to avoid it; *iii)* dualism in the labour market creates and/or reinforces inequality in earnings and job careers.

Compared with most OECD countries, the number of workers covered by employment protection regulations is limited in BCIS. First, self-employed workers, who by definition are not covered, account for a much larger share of the employed population than in most OECD countries. Second, the legislation sometimes excludes some categories of salaried workers from its scope (*i.e.* in India, businesses employing fewer than 100 employees). Third, salaried workers on non-standard contracts, such as temporary or subcontracted workers, are also not covered by dismissal regulations. In China, nearly all private-sector labour contracts, where they exist, are for fixed terms and only employees of government or state-owned enterprises have permanent labour contracts (Herd *et al.*, 2010).

In addition, the enforcement of regulations is generally weak in these economies. Enforcement problems are often aggravated by the lack of freedom of association for workers (*i.e.* in China, Herd *et al.*, 2010). Depending on enforcement and on the segment of the labour market examined, national perceptions of the degree of strictness of employment protection may also differ significantly. According to the Global Competitiveness Report 2009-10, which was based on employer surveys, restrictive labour regulations are not always perceived in BCIS countries as the most problematic factors for doing business in these countries. Other factors such as tax regulations and tax rates, access to financing, government bureaucracy or inadequate supply of infrastructures seem to be more important. Moreover, on a scale from 1 to 100 (with 100 being the most rigid employment protection), employers perceive employment rigidity to be the highest in Brazil, followed by South Africa,[5] and less rigid in India, and much less in China. However, even Brazilian employment protection rigidity is below the level perceived in one-third of the OECD countries (World Economic Forum, 2009).

The gap between "de jure" and "de facto" rigidities of employment protection increases when workers and employers do not perceive any benefits of complying with the law, because benefits are not valued or are so low that they do not compensate for the costs. In other cases, there is a lack of trust in the state and in the institutional framework, due to important enforcement and governance problems that need to be tackled.

Income support measures for the unemployed

In most OECD countries, unemployment compensation schemes provide the first line of defence for job losers.[6] These cover the majority of the employed, irrespective of occupation or industry and, in addition, are often complemented by active labour market policies that provide labour intermediation and training to promote employability. Although important differences also exist among OECD countries in terms of system coverage and generosity, unemployment compensation schemes tend to provide an adequate smoothing of consumption patterns, and they are an important tool against vulnerability and social exclusion, especially during economic downturns.

The use of unemployment compensation schemes tends to be positively correlated with a country's degree of economic development. With the acceleration of economic growth in the past two decades, an increasing number of emerging economies have introduced income support programmes, and Brazil, China, and South Africa have been no exception to that trend.[7] Whereas China and South Africa have unemployment compensation schemes that are financed out of social contributions, as in most OECD countries, in Brazil the scheme is financed by employers through a levy on business revenues that is allocated to a Guarantee Fund for the protection of workers and that also finances job-search assistance and active labour market programmes. India, by contrast, has no unemployment scheme, except for workers who are covered by the social insurance system, which covers less than 1% of workers (Table 6.2).

Table 6.2. **Comparison of unemployment compensation schemes in BCIS**

Country	Date	Eligibility[a]	Financing[b]	Required employment record	Maximun duration of benefits	Relation to individual's earnings	Minimum/maximum benefit	Share of unemployed receiving benefits	Number of beneficiaries
Brazil	1990 (amended in 1994 and 2002)	All workers except the self-employed. Special system for craft fishermen, domestic workers, and workers formerly in forced labor.	Employers contribute 8% of earnings to the Guarantee Fund for Severance Pay (FGTS). Government finances the total cost by earmarked taxes.	Six months	Five months	Benefit varies according to average earnings in the last 3 months of employment.	From minimum wage up to to 1.8 minimum wage	8% (in 2008)	In 2008: 550 000 (monthly average)
China	1999	Urban workers (including those with rural contracts) and self-employment. Are excluded civil servants, rural workers, school or graduates leavers and workers of the informal sector.	Employers 2% of payroll; Employees 1% of gross earnings; Provincial and local governments subsidise Unemployment Funds.	12 months	Up to 12 months if the applicant's contribution is below 5 years. Up to 24 months if it is above ten years.	Benefits are not related to previous earnings.	From Minimum Living Standard scheme (*dibao*) to local minimum wage	Less than 16%	In 2008: 2.6 million (at year end)
India	2005 Rajiv Gandhi Shramik Kalyan Yojana Unemployment allowance	Only for contributors to the Employee's State Insurance (ESI) Fund. Employees earning up to INR 10 000 (USD 212) working in firms with at least 20 workers (ten in manufacturing).	Employees State Insurance Fund 4.75% of payroll: Employees 1.75% of earnings if daily wage of at least INR 70 (USD 1.5); Government pays the medical care for beneficiaries and their families.	At least five years of contribution to ESI Fund.	UI in one spell or in different ones up to 12 months. Medical benefits are also provided to the insured and its family during that period.	Benefit equals 50% of annual average wages.		Close to 0%	n.a.
South Africa	2001	All workers working at least 24 hours per month. Includes domestic and seasonal workers but excludes self-employment.	Employers 1% of worker earnings; Employee 1% of earnings; Government 25% of employee and employer contribution up to a maximum.	3 months of contributions in last year. In case of death, benefit is paid to the partner (or the dependent child) up to six months.		Benefit varies between 30.78% and 58.64% of previous earnings.	From 1 day of benefit for 6 days of work up to 8 months in the 4 - year period before the application of the benefit.	Significan-tly less than 10%	In 2008: 168 000 (monthly average)

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a) Eligibility refers to formal workers, meaning workers having a contract and/or affiliated to the social security system.

b) Both in Brazil and in India the contributions to the FGTS and the ESI Fund act as a savings account, and the insured can withdraw the amount in the event of unemployment, marriage, retirement or other contingencies.

Source: OECD authors from national sources.

BCIS unemployment compensation schemes have different characteristics in terms of the eligibility criteria and the maximum duration of the benefits, and they cover different types of workers, but have in common low coverage and recipiency rates and a low level of income support, which limits their capacity to provide adequate safety nets.

In the emerging economies, unemployment compensation systems, when they exist, tend to cover a small proportion of the working population. This is also the case in BCIS, where a small number of workers from the formal sector contribute to the unemployment insurance funds and then are eligible for benefits. The lack of unemployment insurance tends also to push workers into informal employment to survive when their jobs are lost. Being unemployed and having no income is not affordable, and this contributes to maintaining a low level of participation in the unemployment scheme. Moreover, fiscal policy constraints, budget limitations, weak administrative capacity and an environment sometimes prone to administrative corruption are additional elements that do not facilitate the extension of the coverage of the unemployment insurance systems.

Apart from workers in informal employment, there are other groups of workers representing an important share of the labour force in emerging economies who are not involved in the system (*i.e.* self-employed, rural workers, etc.). For example, in China unemployment insurance covers only urban workers in the formal sector (Box 6.3). Although the number of contributors to the unemployment insurance system in China has increased steadily, reaching 124 million workers in 2008, migrant workers, who represent an important share of the urban workforce, are generally not covered. Data from the China Urban Labour Survey (CULS), conducted by the Institute of Population and Labour Economics of the Chinese Academy of Social Sciences, show that in 2005 only 2% of migrant workers were covered by the unemployment insurance compared to 31% for local workers. This figure has however slightly increased in the recent years to reach 6.5% in 2010 for migrant workers and 47% for locals. This means that around half of the total urban employed contribute to the Unemployment Insurance Fund.

The number of unemployment benefit recipients in China reached a peak in 2004 and then decreased to 2.6 million in 2008, representing 30% of total urban unemployed according to official statistics (under alternative unemployment figures that almost double the official unemployment statistics, that ratio drops to 16%).[8] Zhu (2009) reported that in 2008, to counteract the impact of the economic crisis, a lump-sum subsistence subsidy was paid to an additional 930 000 rural migrant workers, whose labour contract was either not renewed or terminated in advance. Considering this, 40% of the official urban registered unemployed received an unemployment support in 2008.

In South Africa, a country characterised by very high levels of unemployment, both coverage and recipiency rates are lower. Leibbrandt *et al.* (2010) estimate that in 2008/09 the number of unemployment claimants was 442 000, representing 10% of the unemployed.[9] Considering that the maximum claim period for unemployment insurance is six months and that many claimants will receive benefits for a shorter time, the ratio of unemployment recipients to total unemployment is considerably lower. In fact, according to National Treasury figures, in 2008/09, unemployment recipients' monthly average was half of the claimants, clearly representing less than 10% of total unemployed. Although this can be explained mainly by the fact that more than half of the unemployed declare that they have never worked, and thus are not entitled to the benefit, another factor is that long-term unemployment is high in South Africa, and many unemployed have exhausted their benefits. In fact, among the unemployed with previous work experience, 44% have been unemployed for more than a year and are no longer eligible for the benefit.

Box 6.3. **From *Xiagang* to Unemployment Insurance in China**

The Chinese government introduced an Unemployment Insurance (UI) programme in 1986 to cover lay-offs by the urban state-owned enterprises (SOEs). The programme was intended to serve as a social safety net, providing temporary income support and re-employment assistance to laid-off workers, and it was financed by employer contributions, interest earnings, and government subsidies, without any contributions from workers.

During the first years of operation, the system remained very limited, forcing the government to introduce new provisions in 1993 to expand coverage. The acceleration of economic and corporate reforms at the end of the 1990s significantly increased the number of displaced workers, and the government obliged SOEs to establish Re-employment Service Centres to facilitate the transition of their laid-off workers into other jobs. Under this system, laid-off workers kept a connection with their former employees (*xiagang*) and could receive a certain amount of subsidies for up to three years. The Re-employment Centres[10] were responsible for paying laid-off workers' pension and health insurance and basic living allowances (including retraining expenditures). In 1999, the Chinese government transferred the *xiagang* subsidy to the UI programme, and the Re-employment Centres were merged with the Unemployment Insurance programme. The provinces shifted to this system progressively, and by the end of 2006, the transformation from *xiagang* subsidy to unemployment insurance was complete.

The Chinese UI programme currently covers urban enterprises and institutes and their employees as well as self-employment. It does not cover civil servants, rural workers, school leavers and workers in the informal sector. Benefits are not related to previous earnings, but fixed according to a flat level set by the local authorities, between the level of the Minimum Living Standard Scheme (*Dibao*) for urban residents and the local minimum wage. The number of participants to the UI Fund increased steadily, and the recipiency rate, calculated as the ratio of UI recipients to total registered urban unemployment, reached a peak in 2002 and declined considerably thereafter (see table below).

Unemployment insrance in China, 1999-2008

In millions	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Total employment	713.9	720.9	730.3	737.4	744.3	752.0	758.3	764.0	769.9	774.8
Total urban employment	224.1	231.5	239.4	247.8	256.4	264.8	273.3	283.1	293.5	302.1
Registered urban unemployment	5.8	6.0	6.8	7.7	8.0	8.3	8.4	8.5	8.3	8.9
Participants in UI Fund	98.5	104.1	103.5	101.8	103.7	105.8	106.5	111.9	116.4	124.0
Beneficiaries of UI Fund (at year end)	1.1	1.9	3.1	4.4	4.2	4.2	3.6	3.2	2.8	2.6
In percentage										
UI coverage rate (of urban employment)	44.0	45.0	43.2	41.1	40.5	40.0	39.0	39.5	39.7	41.0
UI coverage rate (of total employment)	13.8	14.4	14.2	13.8	13.9	14.1	14.0	14.6	15.1	16.0
UI recipiency rate	19.0	31.7	45.6	57.1	52.5	50.8	42.9	37.8	33.7	29.3

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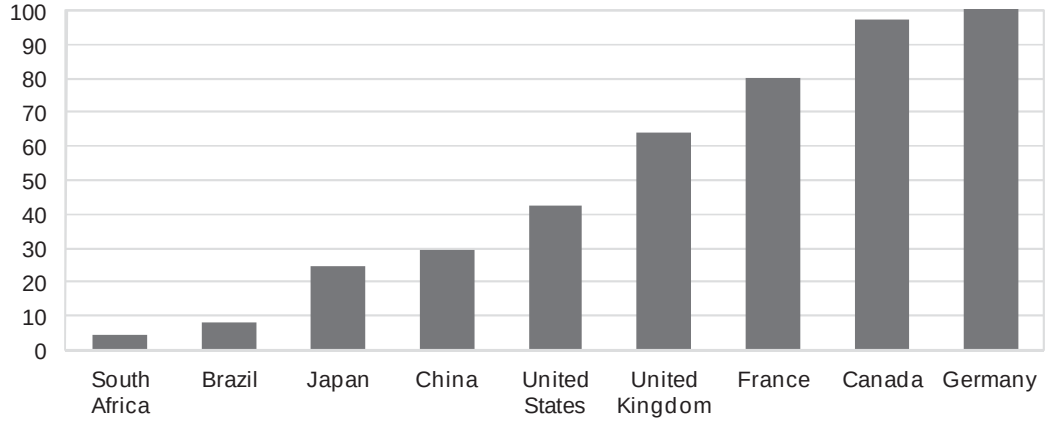
Note: The UI coverage rate is calculated as the ratio of UI Fund participants to urban employment, whereas the recipiency rate is the ratio of beneficiaries to registered unemployment.

Source: China Statistical Yearbook and China Labour Statistical Yearbook (various years).

In Brazil, coverage has been increasing in the last decade, but still remains very low. Rama and Maloney (2001) estimated that at the end of the 1990s although almost half of urban workers were eligible for unemployment insurance, just above one quarter of them receive it. Using data from the Ministry of Labour, the monthly average of the unemployment allowance recipients was around 550 000 in 2008, representing 8% of the total unemployed (Figure 6.3).

Figure 6.3. **Unemployment benefit recipients in selected countries, latest year available**[a,b]

As a share of total unemployed persons



StatLink http://dx.doi.org/10.1787/888932332379

a) 2008 for Brazil, China and South Africa. Data refer to 2002 for Canada, 2004 for France, Germany, Japan and the United States and 2007 for the United Kingdom.

b) For China the unemployment figures are taken from the official registered unemployed (urban areas only). The labour force for China also excludes the rural unemployed.

Source: Duell *et al.* (2009), Table 4.3; *OECD Labour Force Statistics Database*; *OECD-EU Database on Emerging Economies* for Brazil, China and South Africa.

In India, there is no unemployment benefit scheme as such. The Employees' State Insurance (ESI) Scheme, in place since 1948, is a social security scheme providing health insurance to the insured persons and their dependants for the contingencies of sickness, maternity, disability and death due to employment injury. It was only in 2005 that an unemployment allowance scheme (the Rajiv Gandhi Shramik Kalyan Yojana Unemployment allowance) was introduced. This is, however, applicable only to workers previously insured through the ESI scheme who have contributed to the ESI Fund during at least five years, which represents a very small percentage of the better-off labour force. Also in 2005, the government introduced the National Rural Employment Guarantee Act (NREGA), a demand-driven and non-targeted public works scheme giving rural workers the right to work for 100 days. If work is not provided, the worker has the right to an unemployment allowance. This scheme can be seen as the first shoots of a comprehensive income support scheme in India for rural areas. It will be discussed in sub-section below on "The role of public works programmes".

The support level provided by unemployment insurance systems in BCIS tends to be low; nonetheless, significant differences appear across countries. The generosity of unemployment benefits depends on both the duration of the benefit and its level. Compared with OECD countries, where the duration in general ranges from 12 to 24

months (the shortest being six months), the maximum duration of benefits in BCIS, with the exception of China, is lower. Also, both initial replacement rates of previous incomes and maximum benefits are relatively low in emerging economies (OECD, 2010a).

The level of benefits is also low in BCIS. In China, the unemployment benefit level is set by local governments between the living standards level and the minimum wage. It is a fixed amount ranging from 60-70% of the minimum wage determined by local authorities, which is already low compared to the average wage (Zhu, 2009). In a comparison with other transition economies from central and eastern Europe, Vodopivec and Tong (2008) estimated that Chinese unemployment benefits provide a wage replacement rate of 14% of the average wage, below the replacement rate observed in these transition economies (which varies from 45% to 70%). In South Africa, the initial replacement rate varies from 38% to 58% of average earnings over the previous six months, depending on the length of the contribution. In Brazil, the level is higher than in the other countries, and the gross replacement rate increased from 51% in 1995 to 65% in 2006, more in line with OECD figures.[11]

In contrast to many OECD countries, unemployment compensation schemes in BCIS rarely impose strict requirements on the claimants of the benefit, such as to be registered in the employment services or to search actively for a job. When active labour market services are in place (*i.e.* job intermediation, training, etc.), some requirements or conditionalities can be set for unemployment benefit recipients. But this also requires improving the quality of the employment services offered, which is often an important constraint on implementing more active labour market measures. Indeed, BCIS governments have limited administrative capacities to monitor whether unemployment benefit recipients are searching for a job during the benefit receipt period.

Apart from the different designs of BCIS unemployment schemes, the budgets devoted to their unemployment compensation systems is quite low, with the exception of Brazil. Expenditure on unemployment benefits as a share of GDP varies from 0.4% in Brazil to 0.001% in China, compared to 0.6% in OECD countries (OECD, 2010b).[12]

In the past decade, some developing and emerging economies have developed alternatives to traditional unemployment insurance schemes, including Individual Unemployment Saving Accounts (IUSAs). Mainly based on the experience in Chile, which introduced IUSAs in 2002, some authors have proposed the use of private unemployment funding systems like this to achieve a number of ends: to extend coverage without imposing a burden on government budgets, to reduce the moral hazard associated with unemployment insurance, and to cut labour costs (*i.e.* Robalino *et al.*, 2009; Vodopivec, 2009). But IUSAs can also have disadvantages, as they do not protect workers against unemployment duration risks, are not well suited to workers experiencing frequent spells of unemployment, and often tend to cover only the workers that can afford it, *i.e*, the best-off (Box 6.4).[13]

Unemployment insurance schemes do not seem to have had a major impact on welfare and living standards in emerging economies *(i.e.* Vodopivec, 2004; Pages *et al.*, 2009). The combination of unequal and low coverage (between formal and informal workers) with the fact that funding comes from general revenues (which in many countries can be highly regressive) limits the redistributive effect. For example, in Brazil the unemployment insurance system contributes to maintaining wage inequalities, as a majority of benefit recipients are found in the middle deciles of the income distribution and its redistributive impact has been limited *(i.e.* Barros *et al.* 1997 and Balbinotto and Zylberstajn, 1999).

Box 6.4. **Are Individual Unemployment Savings Accounts an alternative that allows extending coverage?**

Individual Unemployment Savings Accounts (IUSA) are private savings (from employers and also employees) deposited monthly into an individual worker's account that can be withdrawn when they lose their jobs. They have been implemented in the past decade in some developing and emerging economies (*i.e.* Brazil, Chile, Colombia, Ecuador, Peru, Panama and Slovenia).

Amongst the most cited advantages of IUSAs are the following: a) they help to avoid state budget limitations and extend protection to more workers (on the assumption that firms and workers are willing and able to sustain the system); b) they need little administrative capacity to identify the unemployment status; and c) they do not affect the intensity and efficiency of job searches. IUSAs have been praised for reducing costs for public budgets, but also for creating incentives for workers to find a new job rapidly (reducing the moral hazard problem linked to unemployment insurance), and for reducing firing costs and avoiding business liquidity issues due to severance payments.

IUSAs have also been criticised as a way of externalising the costs of the eventual risks related to workers losing their jobs and disengaging the responsibility of governments. Contrary to unemployment insurance schemes, by definition IUSAs do not pool the risk of unemployment. They do not protect workers against unemployment duration risks, and their role in protecting against unemployment is limited when the cumulated savings are very low. Workers with short tenures will receive small amounts, insufficient to endure lengthy unemployment, which is more often the situation in less developed countries, where job tenure is lower and turnover much greater than in more developed countries (Berg and Kucera, 2008). In that context, individual unemployment saving accounts are not well suited for workers who experience frequent spells of unemployment.

In addition, the effectiveness of IUSAs rests heavily on the performance and credibility of the financial institutions that manage the individual funds. If returns on the deposits are low, the valuation of the accumulated funds will also be low, facilitating collusive behaviour between the unemployed and the employer. This indeed has happened in Brazil, where there is evidence that some workers have negotiated their dismissal in order to access the funds (Ferrer and Riddell, 2009).

In some countries, IUSAs have been combined with the existing severance payment or unemployment insurance schemes. For example, Colombia, Panama, Peru and Venezuela have combined IUSAs with mandatory severance payments, whereas Brazil, Chile and Ecuador have done so with unemployment insurance systems (Pages *et al.*, 2009). The study on IUSAs in Latin American countries by Ferrer and Riddell (2009) concluded that the overall effect of the IUSAs depends very much on country-specific characteristics and programme parameters, and even more so when they are combined with other instruments. But they also depend on the implementation system, existing labour regulations, the extent of informal employment and the scope for collusive behaviour.

In conclusion, IUSA performance has been mixed and, in particular, there is not much evidence about their adequacy as income support. Moreover, not much evidence is available regarding their effect on employment, which indicates that further country-specific evaluations are needed to better understand the circumstances in which these instruments are more successful.

In China too, there are indications that the unemployment insurance system has no redistributive impact. A survey conducted in five large and seven small Chinese cities showed that the richest households have benefited the most from the unemployment insurance scheme. In 2005, the proportion of workers in poor households – defined as those with per capita incomes below the USD 2/day poverty line – covered by the unemployment insurance scheme was 17% in the large cities and 24% in the small cities, while the proportion of the non-poor was 35% and 46% (Vodopivec and Tong, 2008). Among the bottom quintile of per-capita household income, the proportion of workers covered by the unemployment insurance scheme was 21% and 27%, respectively, in the large and small cities whereas it was double that for the top quintile. If the Chinese unemployment insurance scheme is to play a redistributive role, it would be necessary to expand the coverage to workers without labour contracts, as well as to all rural migrant workers, as they are generally in the lowest quintile of the income distribution in urban areas.

One of the main ways income support mechanisms for the unemployed in BCIS could be made more redistributive is to extend coverage. This essentially involves creating incentives for formal employment that would make it possible to expand the number of contributors and beneficiaries in the unemployment insurance system. Creating incentives for a large share of uncovered workers in the informal sector to contribute to the unemployment system should be explored, at least for some groups *(i.e.* the self-employed, and in China migrants into urban areas and rural workers).

Although they do not have a redistributive objective, active labour market measures oriented to improve labour market matching can also play an important role in promoting access to formal sector jobs and in increasing unemployment coverage. Better job intermediation and more and better training facilitate job searches and are good complements to income-support measures. If well targeted to the groups that have more difficulty entering the formal labour market (mainly women, the youth and the low-skilled), they can act as a powerful measure to tackle inequality.

Nevertheless, the fiscal and budget constraints that BCIS countries face (China to a lesser extent) place important limitations on extending unemployment coverage and on active labour market policies. Although combining unemployment insurance schemes with IUSAs for some groups or in some sectors of activity is not a panacea, it could be considered on a country-specific base, but combined with maintaining a solidarity fund in order to improve redistribution outcomes.

Minimum wage policies

Minimum wage policies can be seen as an instrument to provide socially acceptable wages to unskilled workers and for some authors is an attractive social protection tool. Compared to other policy options, they are self-targeting, need lower monitoring, have low leakage and do not impose high labour costs (Cunningham, 2007). But the impact of minimum wages on employment and the distribution of earnings and income are not neutral, and has been a source of controversy in the literature. On the one hand, when enforced, minimum wages play an important role in ensuring that "fair" wages are paid to unskilled workers. On the other hand, the level of the minimum wage matters and high minimum wages can discourage job growth, in particular affecting the very workers that they are intended to protect, and this may limit their impact on poverty.[14]

However, the empirical evidence in the literature on the minimum wage in developing countries is still limited, especially concerning its effects on the informal sector, where most of the poor are. In principle, by setting a floor and being a reference in wage negotiations in the formal sector, minimum wages contribute to raising earnings at the lowest level, but they can also favour informality. Determining the appropriate level of the minimum wage is the crucial point. When minimum wages are set too low, their impact on the earnings structure is marginal. When set too high compared to average wages, they risk not being respected and can discourage formal employment, facilitating informality. Indeed, workers with a lower labour market attachment – generally women, youth and less-skilled workers – are more likely to be adversely affected, with a greater risk of losing their jobs or being trapped in informal employment.

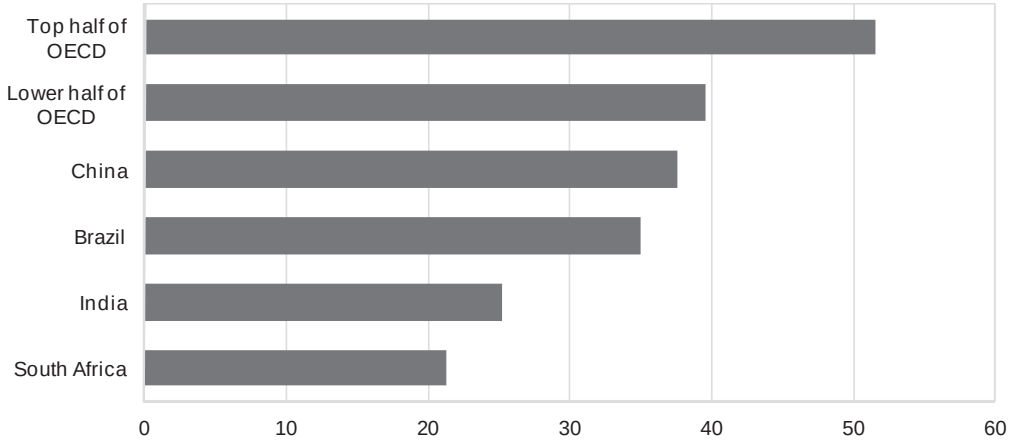
Around two-thirds of OECD countries have set statutory nation-wide minimum wages, and although their levels vary greatly across countries, they tend to be between 40% and 50% of average wages. Interestingly, the ratio of the minimum wage to average wages does not seem to be correlated with GDP per capita, showing that this is not so much the result of the country's economic level of development but rather the result of policy choices (ILO, 2009).

BCIS countries have also developed statutory minimum wages, although their coverage differs substantially. Coverage can be national (Brazil), regional (China and India), by occupation or industry or activity (South Africa) or a combination of these. Indeed, only Brazil has a national minimum wage, which is regularly updated by the government, although the states can set higher minimum wages, which may vary in different economic sectors. In South Africa no national minimum wage exists, although the government has set minimum wages in some sectors (*i.e.* mining, construction, domestic services, etc.), but this affects only a small number of employees. In India, minimum wages are set by states and are rarely revised upward. Indeed, the Minimum Wage Act has existed in India since 1948, but the procedures for fixing and revising it are vague. This has translated in practice into a proliferation of minimum wages that vary by state, covering a broad range of employment groups and economic activities, with many states having statutory minimum wages well below the poverty level.

In China, minimum wages are set by provinces and local prefectures, with effect in all the cities in the prefecture, but less often in the towns. They were established by the 1994 Labour Law to ensure workers enough support to cover their daily needs.[15] The minimum wage provision issued in 2003 strengthened the protection offered by covering migrants, but only in urban areas. It was recommended that minimum wages should be set around 40-60% of average monthly wages, but in most provinces it is often below – or barely reaches – that lower level.[16] Indeed, the ratio of the minimum wage to average wages was below 40% in China, not very far from the lower half of OECD countries and above the other BCIS countries. With ratios below 25%, India and South Africa are considerably below the OECD average (Figure 6.4).

Figure 6.4. **Ratio of minimum to average wages**[a]

In percentage



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a) Ratio of minimum to average wages in 2006 for BCIS; Ratio of minimum to average wage of full-time workers in 2008 for OECD countries.

Source: *ILO Global Wage Database* and *OECD Database on Minimum Wages.*

Moreover, in the BCIS countries, minimum wages are not completely binding, and the extent of non-compliance, although difficult to quantify, is large. In China, there is evidence that low-skilled migrant workers often receive less than the minimum wage as employers tend to deduct from their wages the costs for accommodation and meals. This tends to push these workers to increase their working hours in order to boost their earnings. Indeed, data from the China Urban Labour Survey (CULS) confirm that, although monthly wages for migrants and urban local workers are similar, this is not the case for hourly wages. In 2005, hourly wages for migrants were half of hourly wages for urban local workers, and this difference has increased since 2001. Moreover, the percentage of urban local workers who receive above-minimum hourly wages was double the percentage for migrant workers.[17]

Another non-compliance problem observed in some sectors in China, particularly in the construction sector, has been frequent and extended delays in payment. Indeed, wages in arrears has recently been one of the most important sources of conflict between labour and management in the private sector, substantially increasing the number of labour disputes (which multiplied by five between 1995 and 2005).

As already mentioned, economic theory suggests that increases in minimum wages can cause job losses and unemployment. However, whereas these effects are evidenced for developed countries and the formal sector, these links are less evidenced in countries characterised by an important dual labour market and where informal employment can absorb the employment losses in the formal sector. For example, there is some evidence that in Brazil an increase in minimum wages can force formal sector workers to move to the informal sector of the economy, especially women, youth and low-skilled workers (*i.e.* Cunningham and Siga, 2006; Corseuil and Carneiro, 2001; Foguel *et al.*, 2001). For other authors, minimum wages set a social norm, and hikes in minimum wages in the formal sector are translated into the informal sector, which questions the validity of the

two sector model for explaining minimum-wage effects (*i.e.* Barros *et al.*, 1997; Maloney and Nunez Mendez, 2003).

The extent to which changes in the level of the minimum wage contribute to reducing or increasing inequality is thus not straightforward. There is some evidence that in countries with low relative minimum wages to start with, an increase of the minimum wage tends to compress the wage distribution and reduce overall wage inequality. This happened in Brazil and in Mexico (*i.e.* Lemos, 2004 and Cunningham, 2007). In Brazil, the minimum wage compressed the wage distribution both of the formal and the informal sectors, with a stronger compression effect at the bottom of the formal sector distribution (Lemos, 2004). The lowest paid workers saw the greatest increase in wages when the minimum wage increased, low-paid workers above the minimum wage were less affected, and wages at the top of the distribution were unaffected.[18] However, not all workers whose wages are clustered around the minimum wage make the most significant wage gains. In Brazil, the highest minimum wage premium was found for adult men, whereas women, even if overrepresented among minimum-wage earners, have wages that respond less to a minimum wage increase (Cunningham, 2007). On the other hand, a decrease in the minimum wage increased the dispersion of wages, as measured by the Gini coefficient, in both Brazil and Mexico. These effects were particularly strong for women, unskilled workers and informal workers. These findings cannot, however, be generalised to all countries, as many other factors are at play.[19]

Indeed, when considering the impact of a minimum wage policy as a social policy tool to reduce poverty and inequality, the analysis has to move from the individual to the household level. Immervoll (2009) compiled minimum wages after taxes and benefits in OECD countries and showed that in a majority of countries, a full-time minimum wage earner in a single-person household reaches 50% of the median household income, conventionally considered the relative poverty threshold in OECD countries. But in the case of families, one minimum wage is normally not enough to escape relative poverty (using this same 50% threshold).

For Latin American countries, Cunningham (2007) showed that the effect of the minimum wage on poor households depends on the relative level of the minimum wage as well as on the nature of wage and labour contracts. It also depends on the distribution of employment between the different members of the household, as different combinations of employment at different wages can be observed at the household level, and may have different impacts. Generally, however, minimum wages, even when enforced, are not a good anti-poverty instrument, as they are too low to lift workers out of poverty. Other income support instruments are needed on that front for specific groups of the population.

Finally, not only is the level of the statutory minimum wage important, but so are the methods and processes used to set and enforce it. There is no universal system of fixing minimum wages, but there is evidence that, since national institutional arrangements reflect the level of collective bargaining development and the role of the state in wage policy, involving the social partners in minimum wage negotiations clearly matters. A minimum wage that results from a negotiated arrangement between unions and business representatives facilitates, among other things, both its binding character and its enforceability. Moreover, minimum wages negotiated by the social partners are more likely to be adjusted regularly, based on productivity levels and business economic performance, and tend to preserve workers' purchasing power (ILO, 2009).

Retirement income transfers

Retirement income transfers – which are designed to help the elderly, and by extension the household in which they live, to avoid falling into poverty (or remaining in poverty) – constitute a significant component of social protection. Indeed, old age is generally associated with declining living standards, and this is even more pronounced in countries where social protection schemes fail to reach large segments of the population (Barrientos, 2007).

The BCIS countries have both contributory and non-contributory old-age pension schemes in place (Box 6.5), but their coverage and their importance as a tool to combat poverty vary significantly across countries. Whereas the first schemes depend on the contribution made to the system during working life, and only apply for those working in the formal sector, the second are means-tested measures more directly oriented to reduce poverty, and they form part of the social programmes considered in sub-section below on "Non-contributory social programmes".

Box 6.5. **Main characteristics of old-age pensions in BCIS**

Brazil: The first pillar consists of two schemes. The Regime Geral de Previdência Social (RGPS), the "general regime of social security", covers the private-sector workforce. It is financed through payroll taxes (shared by the employer and the employee), revenues from sales taxes and federal transfers that cover shortfalls in the system. The RGPS is a mandatory, pay-as-you-go financed single-pillar scheme operated by the National Social Security Institute.

Public-sector employees are covered by multiple special pension regimes at different governmental levels pooled to the *Regimes Próprios de Previdência Social* (RPPS). Municipal, federal and state entities manage their own schemes for their employees, but are jointly co-ordinated by the Ministry of Pensions and Social Assistance. In general, these pension plans are financed on a pay-as-you-go basis with the employee paying a percentage of their salary. The percentage varies depending on the public entity.

China: China has a two-tier pension system, consisting of a basic pension and a mandatory employee contribution to a second-tier plan. This system, which was introduced in 1997, was significantly revised in 2006. It covers urban workers, and many of the parameters depend on city-wide (rather than national) average earnings. The second-tier system comprises individual accounts. In addition to the north-eastern provinces (Liaoning, Jilin and Heilongjiang), a further eight have funded individual account systems. In other cases, the accounts are largely notional and are credited with a notional interest rate.

India: India has an earnings-related employee pension scheme and defined contribution employee provident fund administered by the Employees Provident Fund Organisation (EPFO) and other employer-managed funds. Employees with monthly earnings of INR 6 500 or less at firms with 20 or more members are compulsorily covered by the EPFO. Firms not covered under the EPFO may run their own pension and provident fund for the benefit of their employees, subject to certain regulations. Social assistance is available for the needy elderly above 65 years who do not have any regular means of subsistence from personal income sources. This is in the form of a monthly pension of INR 200 under the National Old Age Pension Scheme (NOAPS), jointly administered by the central government and the various state governments. Under this, the central government provides INR 200, which the state government is expected to match, resulting in a pension of about INR 400 per month.

South Africa: The public pension is flat-rate and based on a residency test. There are also voluntary occupational schemes, but coverage for these is not high.

As with other social insurance programmes (*i.e.* unemployment insurance), contributory pensions cover just a small percentage of the population in BCIS, implying that the most important challenge is how to extend coverage to the broader labour force. Indeed, mandatory pension schemes in BCIS have a lower coverage than in OECD countries. According to OECD (2009b), just 9% of the workforce is covered by a mandatory pension scheme in India and 20% in China, compared to an OECD average of 83%, which varies from 34% in Mexico to 95% in Japan. In South Africa, the share of the labour force covered by the old-age pensions system is even lower, around 5%, whereas it is higher in Brazil (around 30%).[20]

Expected demographic developments will make extending coverage an even more pressing task. The BCIS countries are experiencing a fast demographic transition, characterised by declining fertility and progressive ageing. Moreover, informal old-age support systems are more widespread in BCIS than in OECD countries (*i.e.* the elderly often are supported by their children and live in three-generation households), but these are coming under increasing pressure due to different factors (migration, increased female labour force participation, changes in household composition, impact of HIV/AIDS, etc.).

Between 1990 and 2008, the old-age dependency ratio increased slightly in BCIS, and it is expected to accelerate further in the coming years (Figure 6.5). The share of those aged 65 and above in the total population is expected to double between 2010 and 2050 in the BCIS countries, reaching around 20% in China and Brazil, and below 15% in India and South Africa, though these are still half the ratios expected in the most ageing OECD countries (*i.e.* Italy and Japan) (Figure 6.6).

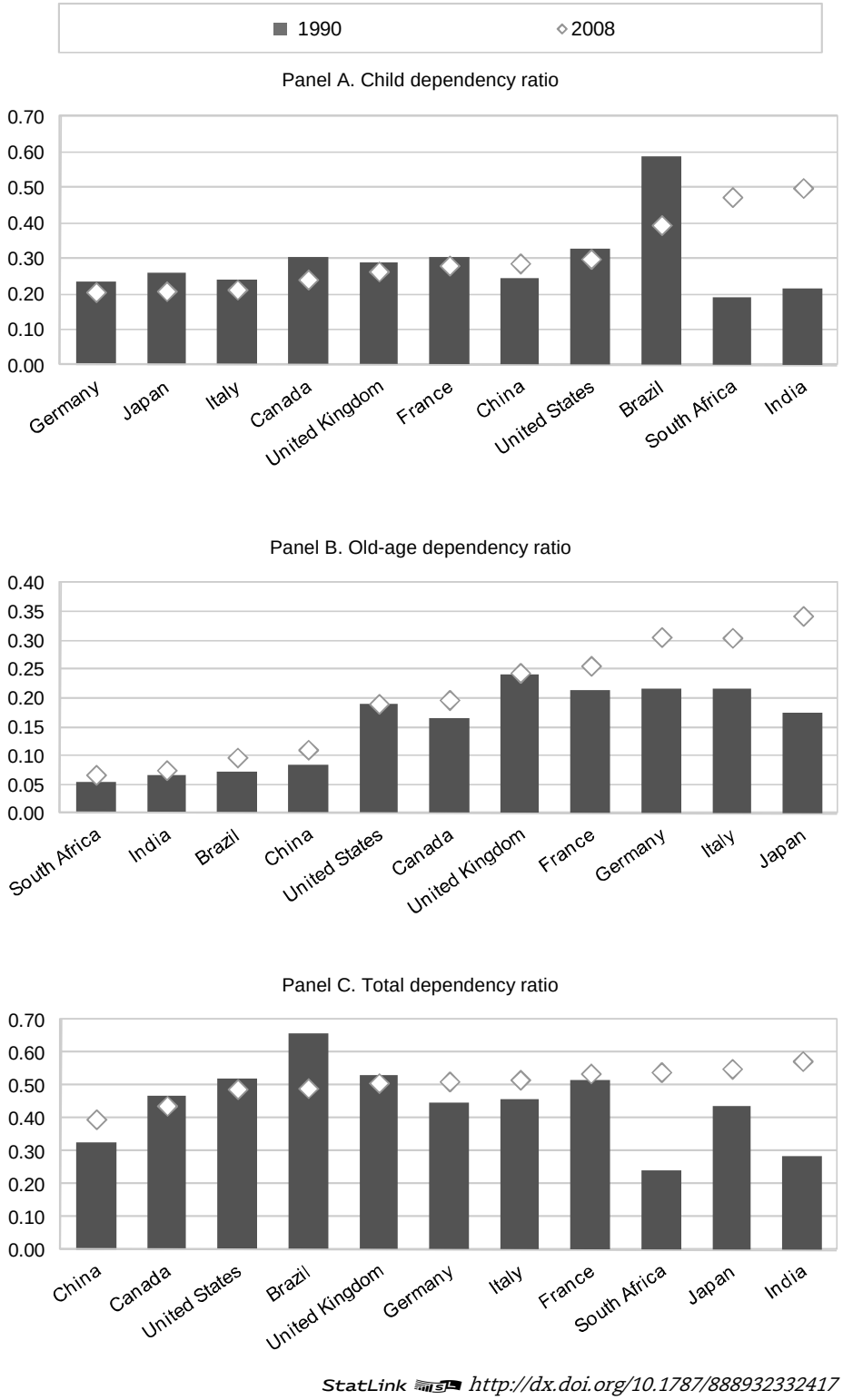
These trends clearly add pressure to extend and improve the design of mandatory pension schemes in the coming years in BCIS, especially China. However, while there is a general consensus on the need to extend the coverage of pensions systems in BCIS, there is less agreement on the available means and most effective ways to do this.

Recent efforts have been made to extend social protection system in China to migrants as well as to rural areas. Indeed, improving rural pensions is the main challenge the Chinese government faces to its goal of achieving a universal social security system by 2020. In China, the support system for the elderly differs greatly between urban and rural areas, with the transition between work and retirement being much better established in the first case than in the second. Indeed, in rural areas the elderly continue to work much longer, as they are not supported by a pension. In urban areas the elderly retire earlier, and their main income in old age comes from government payments.[21]

Although some progress has been observed in the last five years, still only a small percentage of migrant workers in urban areas are affiliated to a pension scheme. According to the preliminary data from the China Urban Labour Survey (CULS) conducted by the Institute of Population and Labour Economics of the Chinese Academy of Social Sciences in 2010, whereas in 2005 6% of migrants were covered by a pension insurance (compared to 65% for the local residents), almost 20% are so in 2010 (73% for local residents).

Figure 6.5. **Dependency ratios for selected OECD and BCIS countries, 1990 and 2008**

As a percentage of persons aged 15 to 64

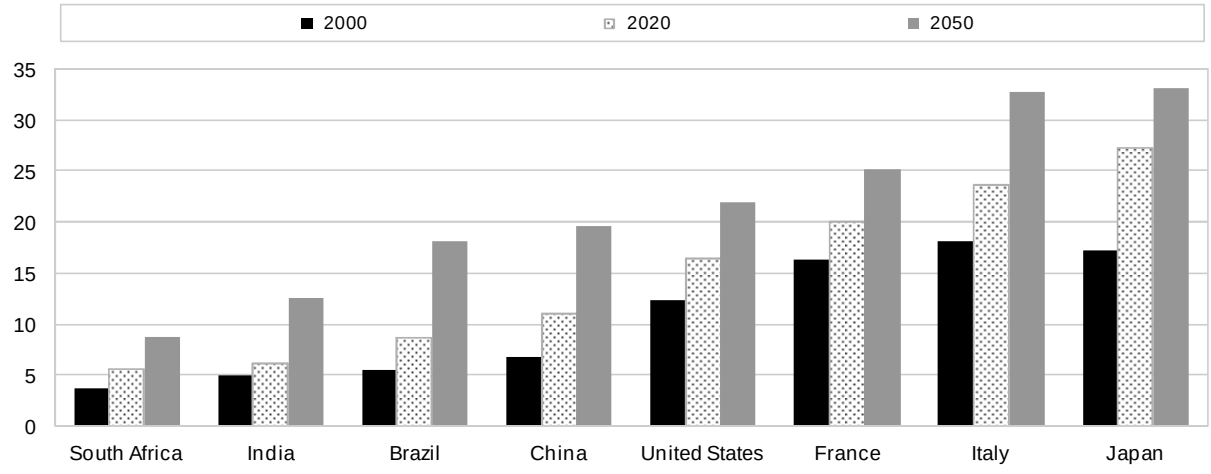


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Source: *OECD Pensions at a Glance, Asia/Pacific Edition*, 2009, and the *World Bank Indicators Database* for Brazil and South Africa.

Figure 6.6. **Projected share of elderly persons, 2000-50**

Persons aged 65 and over as a percentage of the total population



StatLink http://dx.doi.org/10.1787/888932332436

Source: OECD Population Projections 1950-2050 Database.

Indeed, since 2005, many local governments have started to provide social protection to migrant workers not having urban *hukou*[22] by offering partial, low-cost insurance packages, although this protection is still less effective than for urban formal workers. The lack of portability of pension rights is one of the key problems for these workers, as many migrants withdraw what was supposed to be their pension funds as a lump-sum at the end of the year, and then start contributing from zero in a new job. Officials at central and provincial level often stress the desirability of shifting the pooling of funds from the local to the provincial level, which would facilitate extending pension insurance to within-province migrants. But Guangdong province, for example, has found this impossible, because its richer cities, whose funds are in surplus, refuse to cover other cities' deficits. Although these problems are widely recognised in China, there are few indications of a policy response with the time-frame, modalities and scale needed that would have a chance of being implemented.

In India, there have been some efforts to extend social protection, mainly social security benefits, to the unorganised sector. In 2004, the government extended the social security scheme to unorganised sector workers, providing for old-age pensions, accident insurance and medical insurance on the basis of a tripartite contribution by workers, employers and government.[23] However, during the first two years of its existence, only 3 500 workers enrolled, showing the almost non-existent backing for this initiative, both from employers and workers, and the need to improve it further (NCEUS, 2006). Finally, in December 2008, the government approved the Unorganised Sector Worker's Social Security Bill, which is designed to establish a social security system for informal workers. It aims to increase social security coverage for all types of workers (*i.e.* self-employed, casual and contract workers, home-based workers etc.). Upon registration, even without contributing to the scheme, workers will be entitled to a floor level, covering life, health and permanent disability and maternity benefits. Old-age pensions will, however, require the worker's contributions. The Bill's implementation will, however, depend on the amount of public funds available and the way to dispense them, issues that have not been clarified.

The burden of an old-age pension contribution tends to be higher for the more impoverished. Indeed, the contribution of the lowest quintile of the income distribution is higher than for the top quintile relative to their respective incomes. Moreover, when the generosity of the pension is low, there is not much incentive to pay for it. Indeed, although extending coverage of the retirement systems in BCIS remains an important challenge for the future, in terms of present welfare the debate is more over how to reach the poor, and in particular the elderly poor, when they have not contributed to the pension system during their working life. Developing targeted non-contributory measures for the elderly is the alternative that is more frequently used for that purpose.

6.2. Impact of selected poverty alleviation policies

In economies characterised by limited public service provision, a low coverage of social insurance schemes and a high incidence of informality, as in the BCIS countries, social assistance or social safety nets become a key component of social protection for poverty alleviation. This refers to non-contributory transfer programmes targeted to the poor and the most vulnerable, varying from cash and in-kind transfers to poor households, to price subsidies, jobs on labour-intensive public works schemes and fee waivers for essential services (*i.e.* schooling, health care, etc.). The focus here will be on public works schemes and cash transfers in BCIS, conditional or not, and their impact on reducing poverty and tackling income inequality.

The role of public works programmes

When there are not enough jobs on offer, direct job creation through public works programmes (or employment through last-resort strategies) can play an important role in generating income for the most vulnerable and less-developed communities. Under public works programmes, governments offer a temporary job for unskilled and unemployed workers, at a minimum wage, with the aim of combating poverty and improving human capital. If the programmes are well designed, then in addition to being a source of job and income creation, they can contribute to social inclusion and gender equality by substituting paid for unpaid work. They have thus often been valued as useful instruments for pro-poor growth, with the dual aim of promoting infrastructure and economic development in the most backward regions while at the same time alleviating poverty and facilitating social inclusion, mainly for women.

Public works have an insurance function and have been an important safety net intervention, mainly when formal unemployment compensation schemes are not widespread. They have been put in place in recent decades in some emerging and developing economies (*i.e.* Argentina, Bangladesh, Bolivia, Chile, Colombia, Ethiopia, India, Malawi, Mexico, Peru, and South Africa).[24] These programmes have often been implemented as temporary poverty relief programmes during economic shocks or crises and then phased-out when conditions improve. But some authors have advocated the use of these measures on a permanent basis to promote the right to a job as a guaranteed entitlement, rather than acting only as important macroeconomic stabilisers in times of economic shocks.[25]

This has been the case in India, which has a long tradition of public works schemes, which have progressively evolved until the introduction in 2005 of the National Rural Employment Guarantee Act (NREGA), recently renamed the Mahatma Gandhi National Rural Employment Guarantee Act. While there were previous public works schemes, this is the first time that the government is guaranteeing work in India. The NREGA treats

employment as an enforceable right that can be demanded by any adult (one per household) willing to do unskilled work for a maximum of 100 days per year, paid at the minimum wage. If no work is offered within 15 days after the demand is made, the claimant has the right to an unemployment allowance (30-50% of the minimum wage) and, if denied, the state can be pursued in court.

By guaranteeing jobs during lean and distress seasons (within a five-kilometre radius) and by developing local infrastructures and creating productive assets in rural areas, the Indian public works programme also aims to curb the migration of rural workers to urban areas. Another important aspect of the NREGA is the empowerment of the rural poor, by involving them actively in listing and prioritising the works to be carried out at the local level. However, this bottom-up planning system needs transparent expenditure and employment provisions as well as close monitoring and social audits. The main challenge to the scheme concerns the number of institutions and departments with responsibilities for implementation. This requires strengthening the administrative structure as well as transparency and co-ordination among all the actors (the centre, the state, the district, the block and the village level). It also demands continuous evaluation and accountability systems to redirect the scheme when appropriate.

A survey carried out by the Institute of Applied Manpower Research for the year 2006-07 in 20 districts[26] showed that in some regions the scheme took longer than expected to start rolling, and some malfunctioning was detected. Although the survey results should be taken with caution, as it was conducted during the programme's initial phase, it gives some indication of the problems encountered. The majority of the households surveyed positively evaluated the communications about the scheme at the local level, and they could register for work and get their job cards easily and quickly. However, 80% of the beneficiaries said that they did not get a job within the stipulated 15 days, nor were they paid any unemployment allowance. Of those who got a job, only a minority were able to work for more than 30 or 40 days. Even if the scheme stipulates that at least one-third of the wage allocated to each household is for women, women obtained that share of the wage days in only 42% of the households (it is interesting to note, however, that in 22% of the households women got more than one-third of the wage days). As for the impact of the scheme on the well-being of families, the survey pointed to some improvements in the consumption of food and other items, but this was not very conclusive (IAMR, 2008).

The Indian public works programme improved its functioning in the following years and is probably now the world's broadest non-targeted demand-driven scheme. Its budget for 2008/09 represented 0.5% of GDP, the highest share devoted to this kind of programme in emerging and OECD countries. It doubles the South African equivalent programme and is clearly above the OECD average (less than 0.1% of GDP in 2007) (OECD, 2010a). In the past two years, nearly 70% of the funds were devoted to pay wages to workers, and its effectiveness in reaching the poor has been higher than previous versions of the programme (Chhibber *et al.*, 2009). In 2008/09, around 45 million workers benefited from the programme (almost twice the level of two years earlier), representing around 10% of the labour force.

Data from the Ministry of Rural Development confirm that the NREG scheme has offered increasing work opportunities for many women and for the lowest income groups. Indeed, women have progressively increased their participation in the public works programme (from 40% in 2006 to 50% in 2009 in terms of person-days), and

participation is highest among the poorest groups (*i.e.* Schedule Castes and the Scheduled Tribes together represent more than 50% of the participants).

However, there have been significant differences between regions. Low-income states, with more households below the poverty line and lower than average capacity to plan, manage and forecast labour demand, tend to receive less resources on average (Chakraborty, 2007). In addition, weak implementation capacity at the local level limits the benefits poor rural communities derive from the scheme.

The problems most often encountered in implementing the NREG have been: *a)* the lack of communication and information to ensure an understanding of the scheme among all stakeholders (*i.e.* rural households, local communities and local government officials); *b)* weak district planning, giving rise to works that are not relevant to the community and/or of bad quality; *c)* administrative problems, which have in some cases facilitated the improper use of the scheme, including corruption and nepotism (*i.e.* in some cases beneficiaries' job cards have been retained, and delays in paying wages and not paying for the entire time worked have been reported although the progressive inclusion of wage payments through banks and post offices is expected to diminish these practices); *d)* scarce monitoring and lack of systematic evaluations.

Overall, even if effective implementation is still a problem in many regions, and the NREG needs further improvement, it seems to have had positive impacts in combating extreme poverty by raising income in rural areas and creating productive assets. As a result, some commentators have called for a similar scheme to be implemented in urban areas where poverty has increased significantly in recent years.

In South Africa, as part of a broad strategy to reduce poverty and redress the high unemployment situation, in 2004 the government launched a nationwide programme, the Expanded Public Works Programme (EPWP), whose main goal was to alleviate unemployment by creating at least 1 million work opportunities within five years, of which at least 40% for women, 30% for youth and 2% for people with disabilities. All spheres of government and state-owned enterprises can offer productive work, accompanied by training.[27]

The South African programme aims to create job opportunities based on the real demand for services, without displacing existing permanent jobs. The EPWP is conceived as an important instrument to provide exposure to the world of work for the high numbers of unemployed who have never worked (70% of the 16-34 year-old population has never worked, whereas this percentage is 59% for all unemployed). The programme not only offers temporary jobs for unemployed unskilled workers, but also intends to strengthen their skills through providing training and offering formal accreditation of skills as a stepping stone towards better jobs. However, the EPWP has been criticised on the grounds of its limited capacity to pursue both objectives at the same time (Hemson, 2007). As a result, the second phase of the scheme, announced in April 2009, places more emphasis on employment generation relative to training provision in order to maximise the benefits from job creation.[28]

Evaluations of the programme during its first phase show that 58% of the programme's beneficiaries were women, with an average household size of 5.5 people, and that their average income levels almost doubled when participating in the programme. Nearly 90% of respondents thought that assets created by the EPWP would be sustainable, and around 75% of the beneficiaries felt that their participation was positive for their family. However, among the respondents no longer working on EPWP

projects, only one-third were still employed, and of those, only half were employed full-time. As in the Indian scheme, average job duration is shorter than initially stipulated, especially in areas with high unemployment rates, because of the pressure to rotate jobs (Lieuw-Kie-Song, 2009), and wages are low (Hemson, 2008). Furthermore, on-the job training seemed insufficient, as just a third of respondents received it during the last six months (DPWSA, 2009).

Using data from the September 2007 Labour Force Survey (LFS), Leibbrandt *et al*. (2010) found that only a third of adults had heard about the existence of the EPWP, with no difference in awareness between age groups. Those who had participated in the EPWP in the last six months represented less than 1% of the working-age population (1% for men and 0.7% for women). Although the LFS cannot reveal whether EPWP participants were among the poorest, Leibbrandt *et al*. (2010) used educational attainment as a proxy and found, contrary to expectations, that one-third of the participants had completed high school, showing a clear problem with the programme's targeting.

On the other hand, budgetary allocations for the programme seem to have been too low compared to the magnitude of the unemployment problem in South Africa and, as a result, job opportunities were too few and too short in duration to have a significant impact. Indeed, only a small proportion of the expenditures devoted to this programme covered the wages paid to participants. For example, in 2006/07, the wage bill of the EPWP programme was below ZAR 1 billion (10% of the total expenditures on the programme for that fiscal year) (Leibbrandt *et al.*, 2010). Moreover, as work opportunities increased at a higher pace than the budget, the income received per work opportunity has progressively declined.

When introducing the second phase of the EPWP, some issues were raised about the need to redirect part of the job opportunities created from the construction and infrastructure sector to the social service delivery sector (mainly early childhood development and home and community based care), as these may have a higher and much more direct impact on poverty alleviation and gender equality. Examining the macroeconomic consequences of scaling up the South African EPWP by adding a new sector for social service delivery in health and education, Antonopoulos (2009) found that it has a strong potential to fulfil multiple objectives.[29] Extending child care and home-based health care services through the EPWP will improve the general well-being of the most vulnerable households (through better child nutrition, health and education) and will help to replace the unpaid care burdens of poor women by paid work.

Overall, existing public works schemes in India and South Africa have especially attracted women and have provided temporary earning opportunities to many poor households, temporarily helping to reduce extreme poverty. However, fewer days of work have been offered than what is needed to have a significant impact on reducing poverty and inequality in the longer term. Although public works programmes seem to be more suited to times of crisis than to combating endemic poverty (OECD, 2010a), the lack of systematic evaluation is obscuring the picture of their real impact on households' well-being. These programmes have often been criticised for some misuse of programme funds, underpayments of wages and corruption. In addition to improving the implementation process (better planning of the works undertaken and their mid-term sustainability and improving the administrative requirements needed), accompanying the scheme with further training to improve skills seems to be a promising avenue and needs to be better explored. Generating temporary employment is a very positive outcome, but

improving employment possibilities of the participants once the scheme is over is clearly more challenging.

Non-contributory social programmes

This section discusses the impact and main advantages and disadvantages encountered with the development of the existing non-contributory (and not conditional) social programmes developed in the BCIS countries. These programmes comprise income-tested benefits provided by the state to vulnerable groups, such as the disabled, the elderly and young children in poor households. Benefits are financed out of general tax revenues, and there is no link between contributions and benefits.

In the 1990s, the BCIS countries progressively introduced some non-contributory social pensions to alleviate poverty and reduce income inequalities. The target groups, the beneficiaries of these pensions and their characteristics differ significantly across countries (Table 6.3). In China, the progressive introduction of a market economy and the consequent increase in poverty, mainly in urban areas, led to the introduction of new social instruments, while in South Africa the fall of Apartheid was followed by a new strand of social pensions for poor households.

Table 6.3. **Main non-contributory social assistance schemes for low-income households**

China	Date	Social assistance programme	Coverage	Duration of benefits	Maximum benefit	Number of beneficiaries[a]
Brazil	1998	*Bolsa Familia*	Households with children below 14 years of age (if disabled no limit of age) whose monthly income is up to BRL 752 (USD 400). Domestic workers, casual workers and self-employed are excluded.	Age limit of the child or income limit	Up to BRL 25.66 (USD 13.6) paid monthly per child.	12.4 million households (in 2009)
	1996	*Benefício de Prestação Continuada* (BPC)[b]	People over age 67 (over age 65 until 2004) and disabled with per capita family income of one quarter of the minimum wage.		Minimum wage. It cannot be cumulated with other social assistance programs.	2.7 million persons (in 2005)
China	1999	Minimum Living Standard Scheme *(Dibao)*	Initially, urban household whose per capita income falls below a locally determined poverty line. The system has been extended to rural households mainly since 2005.	No limit on either age or length of benefit.	The benefit equals the gap between per capita household income and the local poverty line. Household with no income (or no working capability or no legal supporter) receives the local minimum standard of living.	23 million in urban areas and 43 million in rural areas (in 2008)
South Africa[c]	2004	Foster Child Grant	Resident child (below 18 years of age) whose foster parent (court order) has an annual income below ZAR 12,720 (USD 1630).	Age limit of the child or income limit	Up to ZAR 680 (USD 87) per month and child.	476 394 children (in 2008)
		Child Support Grant	Children below 15 years of age whose caregiver has an income below ZAR 2 400 (USD 307) per month (ZAR 4 800 for a couple).	Age limit of the child or income limit	Up to ZAR 240 (USD 30.7) per month for eligible child. Grant paid up to six children.	8.7 million children (in 2008)
		Care Dependency Grant	Children aged 1 to 18 requiring permanent care (mental of physical disability).	Age limit of the child or income limit	Up to ZAR 1 010 (USD 129) per month.	107 065 children (in 2008)
		Social Relief of Distress	Persons unable to meet their own (or their family) basic needs.	3 months (exceptionally can be extended to 6)		

StatLink http://dx.doi.org/10.1787/888932332512

a) 2008 or latest year available.

b) BPC is an individual allowance that takes into account the family resources. The minimum wage in Brazil has been set in 2010 at BRL 510 (USD 271).

c) In South Africa citizens are eligible to receive only one benefit at a time.

Source: OECD elaboration from national sources.

In China, labour market restructuring observed since the 1990s was accompanied by a shift in the financing of most social benefits from work units – mainly SOEs – to general taxes or shared responsibilities among individuals, employers and the government. The reduction of the welfare burden on employers can be seen in the fall in the share of social benefits in total urban household income. Gao and Riskin (2009) estimated that in urban areas, this share has halved since the end of the 1980s (from 44% in 1988 to 22% in 2002).

To tackle increasing urban poverty, in 1999 China launched the Minimum Living Standard Scheme (MLSS or *Dibao*), a last-resort social pension initially for the urban poor, but progressively extended to rural areas. Any household with per capita income below the locally determined poverty line is entitled to receive the *Dibao* benefit.[30] The benefit amount equals the gap between per capita household income and a locally determined minimum living standard. The scheme is financed by the central government and the municipalities, with a share that varies according to their financial capacity.[31]

The number of beneficiaries has increased very rapidly, and in 2008 came to around 23 million people in urban areas and 43 million in rural ones, representing 3.9% and 6.7% respectively of the total urban and rural populations.[32] But most poor households remain uncovered. Using different surveys, different authors have estimated that the coverage of *Dibao* varies from one-third to one-half of the eligible population. Moreover, migrant workers in urban areas without urban *hukou* are not eligible for the *Dibao* benefit. Gao *et al.* (2009) have estimated that if migrants were included, the number of beneficiaries would have been 15 million higher (representing around 10% of total migrants).

In general, low benefits together with the often strict process required to receive the payment tend to create disincentives for many poor families to apply. Avoiding stigmatisation is another reason often cited for not applying. Other than improving targeting, there is a consensus that extending coverage is a pressing need for many regions. In urban areas, *Dibao* is regulated and administered by city governments, and the scheme's generosity, extension and coverage depend on the cities' financial capacities and priorities, which vary significantly, fostering important regional inequities. Larger city spending on *Dibao* is normally associated with a larger impact on poverty reduction and better targeting performance (*i.e.* Chen *et al.,* 2006; Ravallion, 2007).

As for the impact on poverty reduction, using the China Urban Labour Survey (CULS) conducted in 2001 and 2005 by the Institute of Population and Labour Economics of the Chinese Academy of Social Sciences, Cai *et al.* (2009) found that, whereas in 2001 the unemployment compensation scheme (*xiagang)* had a higher impact on poverty reduction than did the *Dibao*, in 2005 the opposite was true. The *Dibao* reduced poverty rates, as headcount poverty rates were lower after the *Dibao* transfer, compared to the pre-transfer situation, although this decline has been small. Gao and Riskin (2009) also showed that the *Dibao* is the only social benefit in urban China targeting the poor that has contributed to reducing inequality.

With a younger population than China and a higher incidence of poverty in relation to household size, South Africa targets non-contributory transfer programmes mainly to children in the poorest households. Social grants have been the key plan in poverty alleviation policies in South Africa, mainly since the fall of Apartheid when the government reformed and added new grants to the system, considerably increasing the number of beneficiaries.

Currently, the most important social assistance programmes in South Africa are the Child Support Grant, introduced in 1998 (initially for children younger than seven years of age and coming from poor households, but progressively extended to all poor children under age 15), and the Old-Age Pension for the poor aged over 60. With different thresholds, these grants are both means-tested, and their coverage has increased significantly in recent years, although the Child Support grant has more recipients. In 2008/09, 36.6% of households received the Child Support Grant, covering 8.7 million children, more than half of the children aged 15 or under, while the old-age pension covered 2.3 million people.[33]

Leibbrandt *et al.* (2010) have estimated that 2.6 million children who were not eligible received the Child Support Grant, while 2.9 million children in need were not covered (82% of who had never applied for it mainly due to lack of correct information). Whereas the number of ineligible children receiving the grant was expected to be high due to the design of the system, which tests the income of the household only when applying for the first time, it seems surprising that so many children in need did not receive it.[34] This mainly points to the need to increase communications about the grant, to ease the application procedures, and to improve targeting and the follow-up of the household situation over time.

Social grants have become the main source of income for many South African poor households; 55% of the households in the bottom quintile of the income distribution received some income from the Child Support Grant, compared to less than 10% of households in the top quintile.[35] Moreover, for the poorest households social pensions represent two-thirds of total income. As households move up the income distribution, labour market income becomes increasingly important, and reliance on social assistance decreases (Leibbrandt *et al.*, 2010).

Through their increasing impact on household income, social grants have contributed significantly to reducing poverty and improving education and health in South Africa. However, the impact on the labour market is less conclusive. For example, Bertrand *et al.* (2000) found that when a member of the household receives the old-age pension, the working hours of the other members tend to fall (more for men than for women, and more for the eldest sons than for the other members). Also, the unemployed tend to move and change their location depending more on the receipt of a pension by a household member than on the best location for the job search (Klasen and Woolard, 2009). On the other hand, rural women tend to migrate more for job when a member of the household receives a pension (and more if the recipient is a woman), as they can better afford migration costs and/or leave behind their children with their relatives (Posel *et al.*, 2004). Also, Ardington *et al.* (2009) found that transfers to the elderly lead to increased employment among prime-aged adults, which occurs primarily through labour migration. The old-age pension's impact is attributable to the increase in household resources used to stake migrants until they become self-sufficient, or to support and take care for the children left behind.

In Brazil, apart from the family allowance (*Bolsa Familia* programme), which will be discussed in the next section, other social assistance programmes have been in place since the mid-1990s and have had an increasing number of recipients. Indeed, the *Beneficio de Prestacao Continuada* (BPC) is an unconditional cash transfer targeted to the disabled at any age, and to the elderly aged more than 67, living in households with per capita income below one-fourth the minimum wage. In 2005, there were around 3 million recipients of the BPC. It is assumed that BPC beneficiaries have no other income source,

which partly explains why the benefits provided under this scheme are higher (the minimum wage) than for other cash transfers to Brazilian households.

The BPC has often been criticised for encouraging evasion of social security contributions. As the government will provide for the elderly, the BPC could substitute part of the social security benefits of a contributory nature with an assisted benefit. However, the evidence on this is mixed. Medeiros *et al.* (2008) did not find much evidence of a general disincentive to contribute to social security due to the BPC. However, there seems to be more evidence that the BPC has contributed to a non-negligible extent to poverty reduction, although less than the conditional cash transfer of the *Bolsa Familia* programme (see below).

Conditional cash transfers

Conditional Cash Transfer (CCT) programmes are means-tested non-contributory social transfers to the poorest households, conditional on behavioural changes (*i.e.* investing in education and health). The arguments for imposing conditionality are twofold: poor households tend to under-invest in health and in human capital for their children, perpetuating poverty in future generations (private optimal investment is below the socially optimal level); when redistributive measures have little support in a given society, they can be better accepted when imposing the conditionality of "good behaviour" (political economy argument).[36]

CCT programmes complement social policy interventions oriented to offering services to the poor, and are mainly based on interventions that focus on solving the constraints poor households face to access these services. The main difference with unconditional cash transfers (such as grants or other social assistance programmes) is that the former tend to influence individual/household consumption preferences by imposing the condition of making specified investments in the children's health and human capital. These schemes have a dual aim: to reduce poverty in the short run while protecting the formation of human capital in the long run. By helping households to break the vicious circle of inter-generational poverty transmission through the promotion of schooling, health and nutrition, CCT programmes have also been hailed as a way to reduce inequality.

These programmes originated in Latin America, mainly as a response to the economic crisis of the 1990s and the associated falling demand for social services – such as education and health – from the poorest households. They were implemented in different countries (*i.e.* Brazil, Colombia, El Salvador, Honduras, Mexico, Nicaragua, Paraguay), and extended to other emerging and low-income countries (*i.e.* Bangladesh, Indonesia, and pilot programmes in Cambodia, Malawi, Morocco, Pakistan).[37] *Progresa/Oportunidades* in Mexico and *Bolsa Familia* in Brazil have become the largest social assistance programmes in the past decade – covering, respectively, 5 million and 12.4 million households. As some of the first schemes to be implemented, they are also among those most evaluated (Box 6.6).

Box 6.6. **Lessons learned from Conditional Cash Transfers' design**

Each scheme has its own characteristics, and significant differences exist regarding their design, magnitude and main objectives, based on each country's specific circumstances. For example, the relative coverage of existing CCTs varies significantly, from approximately 40% of the population in Ecuador, to about 20% in Brazil and 18.5% in Mexico, and to just 1% in Cambodia. The generosity of the benefits also differs significantly (from 20% of mean household consumption in Mexico to 4% in Honduras and even less in Bangladesh, Cambodia and Pakistan) as do the costs (which range from 0.5% of GDP in Brazil, Ecuador and Mexico, to less than 0.1% in Chile) (Fiszbein and Shady, 2009).

Most CCT programmes share the following characteristics: *a)* they are means-tested and targeted to the poorest households; *b)* to assure the children get the benefits, the cash benefit is usually addressed to the female head of the recipient household; *c)* education conditions usually include school enrolment, attendance of at least a fixed percent of school days and occasionally some measure of school performance; *d)* schemes tend to include a nutrition and health component for children and pregnant women; d) the transfers vary with the number of children and can change with their age and gender; *e)* transfers are often higher for children in secondary education.

When implementing and designing CCT schemes, different policy dilemmas need to be addressed:

Targeting: they are normally designed to target poor households that under-invest in their children's human capital. As the latter is difficult to target, the usual method has been to target poor households, which leads to the same problems as faced by any other means-tested social assistance programme (*i.e.* which poverty line to use and how to set the cut-off line for eligibility).

The amount of the benefit: transfers are often small to avoid dependency of beneficiaries and not to negatively affect labour market participation. If too small, however, they might be insufficient to enable households to cross the poverty threshold.

Duration of the transfer and exit strategy: this basically depends on the main objective pursued by the transfer scheme. If the objective is to enhance human capital formation for the next generation, the scheme needs to have a long duration, whereas if the main objective is to help poor households to cross the poverty line, then a shorter duration may be enough. The design of entry and exit rules has to be carefully considered to avoid disincentives, mainly related to labour market participation. In some cases, time limits on benefits have been imposed (*i.e.* Chile) or gradual benefits have been adopted, but in general once the scheme is in place scaling it down is a difficult task.

Costs and capacity constraints: other than the direct costs of the intervention, opportunity costs have to be considered as well. Administrative, management and implementation costs and capacities have to be included too. This requires an administrative and data gathering mechanism for targeting potential beneficiaries as well as good management and monitoring and evaluation requirements.

CCT programmes often have multiple objectives that make it difficult to assess their impacts. Existing evaluations of these schemes, however, show that: in general they have been well targeted (mainly in Brazil and Mexico); they have improved the living standards of many poor households; they have raised the levels and composition of consumption *(i.e.* towards more food); and they have made a substantial contribution to poverty reduction (Fiszbein and Shady, 2009). Poor households have increased the school enrolment of their children and the use of health services, but improvements regarding the final outcomes are more nuanced. The nutritional status of children has not always improved, and there is little evidence about their learning outcomes.

According to UNDP (2009), the impact of CCTs has been higher when supply-side constraints were not severe and when certain minimum infrastructure conditions were in place regarding educational and health services. As a result, on the educational front, the impact has been greater when school enrolment and attendance were supplemented by a better school environment and quality of education than when education provision was of very low quality. The lack of investment in the quality of education available to disadvantaged children and the lack of access to a set of other public services prevent breaking the inter-generational transmission of poverty *(i.e.* Soares *et al.*, 2007; Paes Souza and Pacheco Santos, 2009).

It is also interesting to see some possible consequences of the design of these social programmes and their impact on the labour market. In general, CCTs do not condition the benefit payment on the household head's engagement in the labour market, but are often directed to the reduction of child labour. In theory, the cash transfer can increase the reservation wages of the head of the household and provoke a fall in labour supply. Indeed, an important concern regarding CCTs' impact was that they could discourage the labour market participation of adults (as they could choose to consume more leisure instead of work or to reduce work to continue to be eligible for the transfer).

However, evidence does not confirm these fears, and the disincentive effects on adult work seem to have been modest. For example, in Brazil, Ferro and Nicolella (2007) and Mattos *et al.* (2008) have investigated this issue empirically, and both conclude that *Bolsa Família* had no adverse impact on labour supply. Also, Gondim Texeira (2010) concludes that there is no effect on the probalility of working of both men and women and that the impact of *Bolsa Familia* on weekly hours, although being statistically significant, was not large. There is however evidence that CCTs have helped to reduce child labour in many countries (*i.e.* Brazil, Cambodia, Ecuador, Mexico and Nicaragua).[38]

The evidence of the impact of these programmes on managing risk and reducing income inequality is, however, more nuanced. For example, in Brazil, some studies have found that social transfer programmes have had a positive but small effect on the recent reduction of inequality (Lima and Scorzafave, 2008). Hoffman (2006) argued that although the main reduction in inequality is due to the improvement in educational attainment, a fifth of the overall reduction in inequality between 2001 and 2005 was due to the cash transfer programmes (both *Bolsa Família* and the BPC), which is not negligible. There are, however, important differences between regions. For example, in the poorest regions, like the Northeast, these programmes are responsible for about 46% of the reduction in the Gini coefficient between 1998 and 2005 and for 87% in the period between 2002 and 2004.

Barros *et al.* (2006) argued that the main factor behind the effect of the social programmes on inequality in Brazil was the increase in their coverage between 2001 and 2005, especially in the case of *Bolsa Família.* Moreover, *Bolsa Família* has contributed more to decreasing inequality than other social programmes in Brazil (*i.e. Benefício de Prestação Continuada,* or the PETI, the latter having a negligible effect on inequality).[39]

In India, although conditional cash transfers are not developed, there exists some cash and in-kind transfers to households in the form of food, fuel and fertiliser subsidies. Some authors have argued that the budget spent annually on these subsidies would be better utilised if provided directly to the beneficiaries through a cash transfer programme, as the latter will enhance efficiency and reduce the existing leakages (and the associated corruption at municipal level) in the delivery of such programmes (UNDP, 2009).

Evidence suggests that implementing CCTs is an important option for helping the most vulnerable households. Although a key instrument, they cannot solve all the problems faced by poor households and should be complemented with other social protection and employment creation measures as well as with better quality educational and health services. CCT programmes should basically remain oriented to fighting persistent poverty, but can also be expanded in times of economic crisis when many groups of workers become more vulnerable (Box 6.7). However, experience also shows that once coverage is expanded, scaling down the programme once the shock is over remains a challenge.

Box 6.7. **Main responses to the current economic crisis**

The response of employment and social policies to the current crisis has been uneven among the BCIS countries, although most policy measures introduced in 2009 consisted in expanding or modifying already existing programmes. OECD (2010a) reviews this issue, based on the responses to country questionnaires submitted by nine emerging economies (*i.e.* Brazil, Chile, China, India, Indonesia, Mexico, Russian Federation, South Africa and Turkey), in the areas of unemployment compensation schemes, cash transfers and public works programmes.

Traditionally, in a crisis period, the combination of increased layoffs and reduced hiring results in longer unemployment spells. As unemployment spells lengthen, beneficiaries are confronted with expiring entitlements and/or declining benefit payments. While, in general, this is likely to increase job-search incentives, their effect is likely to be less pronounced in recession periods, as job vacancies dry up and demand-side restrictions become more binding (OECD, 2009a). This is especially the case for countries where benefit duration is short, such as Brazil. In fact, Brazil (like Chile) has implemented a temporary extension of the benefit duration in response to the global financial crisis, increasing it by two months for laid-off workers in specified sectors determined at the state level. This was done only for workers laid-off in the months of December 2008 and January 2009, a short period, which is probably related to the relatively small and short-lived increase in unemployment experienced in Brazil. About 190 000 workers were concerned by this extension, representing slightly more than a quarter of unemployment benefit recipients in January 2009. Available data show that this did not result in an increased average duration of benefit in 2009, which was 3.9 months in 2009, just as in 2008.

Regarding cash transfers, some emerging economies (including Chile and Indonesia) introduced specific one-off cash transfers to cushion the impact of the shock on the poorest groups. China used its already existing schemes to identify eligible households and introduced a one-off transfer to poor households, equivalent to the average *Dibao* monthly benefits in urban areas in 2008 (about 15% of the Shanghai minimum wage in 2009) and to twice the average *Dibao* monthly benefit in rural areas (see Chapter 3 of this report for further details). 63 million *Dibao* recipients benefited from this exceptional transfer, as well as 11 million households not receiving it but already identified as vulnerable households by the local committees in charge of identifying households eligible for *Dibao* (mainly elderly people without children who already received some benefits and those who applied for the *Dibao* but were rejected).

In 2009, Brazil and South Africa also introduced some reforms of their cash transfers programmes, not specifically in response to the crisis, but as part of their long-term anti-poverty strategy. In Brazil, *Bolsa Família* was scaled up in 2009 along lines planned before the crisis. The poverty line used to target poor families was revised upwards by 17% to take better account of the large income volatility of the poorest population groups, due to their participation in the informal labour market. As a result, the estimated eligible population rose from 11.1 million to 12.9 million (12.4 million households were effectively covered in December 2009). The benefit level was also increased by 10%. Together, these two measures imply a 3.5% growth in the budget for *Bolsa Família*. In South Africa, eligibility for the Child Support Grant was extended to children aged up to 15 in 2008, with the aim to extend it to children up to 18 by 2012. As a result, the number of children covered by the programme increased by about 3%. The income threshold used for eligibility was also revised upwards. An additional measure was also taken in response to the crisis and especially to increasing fuel and food prices: all social assistance grants were increased by ZAR 20 above the usual annual increase in October 2008, which represents an increase of about 10% in the case of the Child Support Grant.

6.3. Conclusion

In recent years, the BCIS governments have incorporated the goal of reducing poverty and inequality into their approaches to more sustainable growth and have enacted some reforms in that direction. Tackling inequality traps requires improving economic opportunities for all, and this covers a variety of policy actions, from improving the distribution of productive resources and assets to improving human capital through better-quality education to which all people have access.

In pursuing these goals, labour market and social policies have an important role to play, as they directly or indirectly affect household incomes. In countries with significant labour market segmentation between formal and informal employment, policies and measures directed exclusively at the formal labour market have a limited influence, as they are oriented to a small share of the labour force. High informality limits the impact of labour market polices on reducing poverty and inequality. The majority of the poor are at the margin of the labour market and are not directly affected by these measures – such as unemployment compensation schemes, a minimum wage or contributory retirement pensions – which in most OECD countries are instruments that help reduce poverty.

That said, labour market policies can have a considerable impact on maintaining this labour market duality when they make employment expensive and favour underemployment and informality. In this kind of configuration, they could even become counterproductive with respect to reducing poverty and inequality. Indeed, labour regulations, although in principle oriented to protect workers, can, if not well designed, have perverse and undesired effects on the level of formal employment, discouraging employers from hiring workers on formal contracts. In such a case, their effects on low-wage workers are unclear and depend very much on the specific conditions in each country.

For that reason, rather than being oriented to further protect those that they already protect – often workers who are better-off – labour market policies should be designed and reinforced to reduce labour market duality. The main challenge is to develop measures to make labour markets more inclusive and to create incentives to reduce informality. This strategy requires giving informal workers the necessary means (legal, financial, educational) to shift to formal employment as well as to provide incentives for firms to become formal. This means giving greater priority to enhancing human capital as well as to labour market flexibility, simplification of the tax system, and reduction of the often burdensome product market regulation. Moreover, as the informal sector in BCIS does not have the same weight in the various national labour markets and is very heterogeneous in each country, this also requires a better understanding of the socio-economic characteristics of the different groups of workers that form it, as well as their dynamics, in order to target the groups that can be brought more easily into the formal sector.

Labour market policies should also be more oriented to protect workers than jobs, which could mean applying some of the already existing measures to workers outside the formal sector. To be more oriented to those who are more removed from the labour market (*i.e.* the less skilled, women, youth and the long-term unemployed), some measures, such as the unemployment insurance scheme, could be combined and complemented with other targeted active labour measures, and in particular, with training measures that contribute to improve labour market matching.

To improve labour demand and promote job creation in the formal sector, labour market policies need to be integrated and complemented with other policies, ranging from measures to foster entrepreneurship (*i.e.* reducing barriers to entrepreneurship such as by facilitating access to credit, etc.) to measures that improve human capital accumulation through better quality education for all. To boost incomes and jobs, the four pillars of the *OECD Reassessed Jobs Strategy*, conveniently adapted on a country-specific base, can also be applied to BCIS. This means: *i)* setting an appropriate and solid macroeconomic policy; *ii)* removing the impediments to labour market participation for groups with more difficulties as well as facilitating the job search; *iii)* tackling labour and product market obstacles so as to boost labour demand; and, *iv)* facilitating the development of labour force skills and competencies.

Public works programmes, conditional cash transfers and other non-contributory social assistance programmes have been found to have positive effects on reducing poverty, whereas the evidence on their impact on inequality is more nuanced. Although means-tested programmes – such as CCTs and other non-contributory social transfers – have associated higher costs and targeting errors, they have more stable outcomes with respect to reducing poverty than do public works programmes.

Moreover, introducing conditionality in cash transfers to poor households can be a valuable prerequisite not only to assuring more effective transfers to the target population, but also in terms of better acceptance amongst the whole population (the political economy argument). Conditionality has mainly been oriented to improving children's access to health and human capital, an objective that has been reached for many poor households. However, breaking the inter-generational transmission of poverty requires additional efforts to improve the quality of the educational and health services offered to these populations. Moreover, some conditionality on the labour market participation of adults in the household could also be considered in certain cases.

Public works programmes can be targeted (as in South Africa to the unemployed) or not (as in India), but what seems crucial is that the wage offered is not set too high to really attract the poorest and most vulnerable workers and avoid displacing jobs. The potential of these programmes has not yet been fully explored, and accompanying the scheme with further training to improve skills seems to be a promising avenue that should be given more consideration. This will help to increase the skills of the participants so that they can effectively enter the labour market on a more stable basis. It will not only offer participants a temporary income, but will also be a better strategy to effectively break poverty and inequality traps.

The cost-effectiveness of all these social protection measures can be improved through better monitoring, although it is important to keep in mind the additional costs of doing this. Indeed, the possibility of scaling-up these programmes, not only in times of economic crisis but on a permanent basis, depends on the financing constraints imposed by each country's fiscal policy. The needs remain large compared to the budgets available, but social protection policies generally have to be seen as an investment for the future. Even if in some cases they appear to be expensive or even unaffordable, when well-designed and administered to reduce leakages and possible corruption, they clearly pay-off in the medium and long term.

Notes

1. An account of labour market regulations and policies is also given in OECD (2010a), Chapter 2 on: "The global crisis in emerging economies: The jobs impact and policy response".

2. As data on social insurance are not available for South Africa, this could not be included in Panel B.

3. The OECD EPL indicator was updated in 2008 and compiled from 21 items. These quantify the costs and procedures involved in dismissing individuals or groups of workers or for hiring workers on fixed-term or temporary work agency contracts. These items can be classified in three main areas: *i)* employment protection of regular workers against individual dismissal; *ii)* specific requirements for collective dismissals; and *iii)* regulation of temporary forms of employment (see Venn, 2009 and OECD, 2004 for details on the indicator).

4. See Chapter 4 of this report for further details on this discussion in India.

5. OECD (2008b) and Leibbrandt *et al.* (2010) also confirm that in South Africa, although EPL data point to a flexible labour market, employers perceive that the labour market is in fact quite rigid, especially regarding regulations on firings.

6. Other than being part of the labour market measures, unemployment compensation schemes are also part of the social protection system in BCIS.

7. Other than unemployment compensation schemes, mandatory severance payments are also an attractive income support mechanism generally used in developing countries (see Pages *et al.*, 2009 for a review in Latin American countries), but will not be developed here as they are part of the hiring and firing rules mentioned in the previous section.

8. According to OECD (2010b), the number of unemployed in 2007 was 16 million, compared with 8.3 million according to the official statistics.

9. This percentage drops to 8% when considering a broad unemployment definition that includes discouraged workers.

10. In 1996, Shanghai was the first province to establish Re-employment Centres.

11. See *www.ipea.gov.br/sites/000/2/politicasocial/html/script/home.html*. Pages *et al*. (2009) also showed that in Brazil, as in Argentina, Uruguay and Venezuela, initial replacement rates range from 50-60% of the average wage preceding the unemployment spell.

12. No comparable data are available on the budget devoted to active labour market measures in BCIS.

13. See also Valentini (2008) for a review of the IUSA literature.

14. See OECD (1998) for a detailed review for OECD countries, and also Martin and Immervoll (2007).

15. When establishing the monthly minimum wage, provincial governments are to take into consideration the cost of basic necessities for employees and their dependents, as well as the local consumer price index. The Labour Law also specifies that the standard workweek is 40 hours, and overtime should not exceed 36 hours per month. The minimum wage is for work within normal working hours, and should not include overtime payment.

16. *www.china-labour.org.hk* shows that in major cities, such as Beijing and Shanghai, the minimum wage in 2006 was around 20% of the average monthly wage.

17. See Chapter 3 of this report for details.

18. A reduction of wage inequality with an increase in minimum wages is also documented in Lemos (2004), Soares (2002) and Sousa and Menezes (2003).

19. In countries with already high minimum wage levels (*i.e.* Colombia), an increase in the minimum wage tends to increase the wages of those in the middle of the distribution, and thus contributes to increasing inequality between the poor and middle-income workers (*i.e.* Cunningham, 2007; Arango and Pachón, 2004).

20 . Barrientos (2007) found that in the Latin America and Caribbean region, coverage rates for old-age pensions are below 40%, with the exception of Argentina, Chile, Costa Rica, Panama and Uruguay.

21. See Herd *et al.* (2010) for a detailed discussion of labour market participation in rural and urban areas in China.

22. As has been said, rural migrants in urban areas in China can be divided into two main groups: those who have obtained urban *hukou* (resident registration system) and those who have not. Being registered as urban *hukou* is a prerequisite to coverage by the urban social security system and access to various forms of government assistance (health care, children school, etc.).

23. The only social security measures available to workers in the unorganised sector were the two components of the National Social Assistance Programme: the National Family Benefit Scheme, which provides a household with a lump sum in the case of death of the primary breadwinner, and the National Old Age Pension Scheme, which provides a pension at a low rate (around INR 200 per month) to those with no regular means of subsistence. Some states provide additional packages for specific workers.

24. See Grosh *et al.* (2008) for a review of the schemes in these countries. PWP used in emerging economies differ from those in developed economies mainly in two respects: they are more a social policy tool than an active labour market measure oriented to improve the employability of the participants; and the projects undertaken create employment but also benefit the local community.

25. See Dreze and Sen (1989), Papadimitriou (1998) and Wray (2007), among others, for a complete discussion.

26. During its first phase, the NREGA came into force in 200 districts (now expanded to another 130 districts) and is expected to be progressively extended to the whole of rural India by the end of 2010.

27. The EPWP is the new version of the National Public Works Programmes (NPWP) and the Community-Based Public Works Programme (CBPWP). It is part of the Accelerated and Shared Growth Initiative for South Africa (ASGISA), which seeks to halve poverty and unemployment by 2014. Under this initiative, the government has promised to increase public sector capital budgets at a rate of 10%-15% per annum and raise Gross Domestic Fixed Investment from 15% to 25% of GDP during the period 2004-09.

28. According to official estimates, the target of one million job opportunities was reached one year before the five-year horizon, and the government decided to scale up the programme by launching a new phase of the EPWP in April 2009. 2 million work opportunities are expected to be created under the new phase of the programme (2009-14), thereby halving the number of unemployed by 2014. The expectation is to scale up progressively the full-time equivalent jobs created every year (from 145 000 in 2008 to an average of around 400 000 per year until 2014). The average duration of employment is assumed to be 100 days.

29. During the period 2004-05, the programme costs represented 0.3% of GDP and 0.8% of government expenditures, with 75% of the budget allocated to infrastructure projects, 20% to environmental projects and only 3% to social sector job opportunities (Antonopoulos, 2009).

30. The income considered is the cash income coming from any source (*i.e.* earnings, social benefits and private transfers). Some other indicators as financial assets, employment, health status and housing conditions, are often considered too. Some cities take into account ownership of durable goods. The eligibility test also considers residency status (urban *hukou*) and family composition (*i.e.* cities treat adult children living with their parents differently).

31. In the richest coastal regions, municipalities pay most of the expenditure, while poor municipalities, such as in the west of the country, bear almost none of the expense (Solinger, 2008).

32. See Chapter 3 of this report for details on trends and on the average monthly benefits received.

33. According to the National Treasury (2010), in 2008/09, 13 million people were beneficiaries of a social grant in South Africa: 67% benefited from the Child Support Grant, 18% from the Old Age pension, 10% from Disability, 4% from the Foster Care Grant and 1% from the Care Dependency Grant.

34. In January 2010, the government introduced a condition for receiving the Child Support Grant: caregivers of Child Support Grant beneficiaries need to ensure that the children are enrolled in and attend school. However, punitive actions – such as stopping the grant – are not envisaged in case of non-compliance (National Treasury, 2010).

35 . For the Old Age pension, these percentages are 10% of households in the bottom quintile of the income distribution, compared with 5% in the top quintile, for the Disability grant 6% and 3%, respectively.

36. Indeed, conditioning the transfer on "good behaviour" may be better accepted by the better-off people who tend to be involved in the decision-making processes. In contrast to unconditional transfers, making the beneficiaries of the transfer co-responsible, with the state as a partner, leads to better political economy equilibrium.

37. See Fiszbein and Shady (2009) and UNDP (2009) for a review.

38. See OECD (2003) and Fiszbein and Shady (2009).

39. *Bolsa Familia* and *Beneficio de Prestacao Continuada* (BPC) are the two main social transfers in Brazil. The PETI programme was created in 1996 to eliminate child labour and was incorporated into *Bolsa Familia* in 2006.

References

Ahsan, A. and C. Pages (2007), "Are all Labour Regulations Equal? Assessing the Effects of Job Security, Labour Dispute and Contract Laws in India", World Bank Policy Research Working Paper No. 4259, June, Washington, DC.

Antonopoulos, R. (2009), "Promoting Gender Equality through Stimulus Packages and Public Job Creation: Lessons Learned from South Africa's Expanded Public Works Programme", Public Policy Brief No. 101, Levy Economics Institute of Bard College.

Arango, C. and A. Pachón (2004), "Minimum Wages in Colombia: Holding the Middle with a Bite on the Poor", *Borradores de Economía*, No. 280, Banco de la República de Colombia, Bogota.

Ardington, C., A. Case and V. Hosegood (2009), "Labor Supply Responses to Large Social Transfers: Longitudinal Evidence from South Africa", *American Economic Journal: Applied Economics*, Vol. 1.1.

Balbinotto, G. and H. Zylberstajn (1999), "O seguro-desemprego e o perfil dos segurados No Brazil 1986-1998", XXVII Encontro Nacional de Economia, ANPEC.

Barrientos, A. (2007), "New Strategies for Old-age Income Security in Low Income Countries", ISSA Technical Report No.12.

Barros, R. P. D., J.M. Camargo, and R. Mendonca (1997), "A estrutura do desemprego no Brasil", Texto para Discussao No. 478 IPEA, Rio de Janeiro.

Barros, R. P. D., M. Foguel, and R. Mendonca (1997), "Salario minimo I: o nivel do salario minimo No Brasil", Anais do XIX Encontro Brasileiro de Econometria, pp. 383-402.

Barros, R.P.D, M. Carvalho and S. Franco (2006), "O papel das transferências públicas na queda recente da desigualdade de renda brasileira", in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

Bassanini, A., L. Nunziata and D. Venn (2009), "Job Protection Legislation and Productivity Growth in OECD Countries", *Economic Policy*, No. 58.

Berg, J. and D. Kucera (2008), *In Defence of Labour Market Institutions: Cultivating Justice in the Developing World*, International Labour Office, Geneva.

Bertrand M., S. Mullainathan and D. Miller (2000), "Public Policy and Extended Families: Evidence from South Africa", NBER Working Paper No. 7594.

Cai, F., D. Yang and M. Wang (2009), "Employment and Inequality Outcomes in China", Paper presented at the OECD Seminar on "Employment and Inequality Outcomes: New Evidence, Links and Policy Responses in Brazil, China and India", OECD, Paris, April.

Corseuil, C. and F. Carneiro (2001), "Os impactos do salario minimo sobre emprego e salarios no Brasil: evidencia a partir de dados longitudinais e series temporais", Texto para Discussao No. 849, IPEA, Rio de Janeiro.

Cunningham W. and L. Siga (2006), "Wage and Employment Effects of Minimum Wages on Vulnerable Groups in the Labour Market: Brazil and Mexico", World Bank, Washington, DC.

Cunningham W. (2007), "Minimum Wages and Social Policy, Lessons from Developing Countries", International Bank for Reconstruction and Development and the World Bank.

Chakraborty, P (2007), "Implementation of the National Rural Employment Guarantee Act in India: Spatial Dimensions and Fiscal Implications", Levy Economics Institute, Economics Working Paper No.505.

Chen, S., M. Ravallion and Y. Wang (2006), "Dibao: A Guaranteed Minimum Income in China's Cities?", World Bank Policy Research Working Paper No.3805, January.

Chhibber, A. J. Ghosh and T. Palanivel (2009), *The Global Financial Crisis and the Asia-Pacific region: A Synthesis Study Incorporating Evidence from Country Case Studies*, UNDP Regional Centre for Asia and the Pacific.

Department of Public Works of South Africa (2009), "Expanded Public Work Programme. Five-Year Report 2004/05-2008/09: Reaching the One Million Target".

Dreze, J. and A. Sen (1989), *Hunger and Public Action*, Oxford University Press, Oxford.

Dougherty, S. (2009) "Labour Regulation and Employment Dynamics at the State Level in India", *Review of Market Integration*, Vol. 1, No. 3.

Duell, N., D. Grubb and S. Singh (2009), "Activation Policies in Finland", OECD Social, Employment and Migration Working Papers No.98, OECD Publishing, Paris, November.

Ferrer, A. and W.C. Riddell (2009), "Unemployment Insurance Saving Accounts in Latin America: Overview and Assessment", World Bank Social Protection and Labour Discussion Paper No. 0910.

Ferro, A. and A. Nicolella (2007), "The Impact of Conditional Cash Transfer Programmes on Household Work Decisions in Brazil", FEA-RP, Working Paper Series.

Fiszbein, A. and N. Schady (2009), "Conditional Cash Transfers Reducing Present and Future Poverty", World Bank Policy Research Report.

Foguel, M., L. Ramos and F. Carneiro 92001), "The Impact of the Minimum Wage on Labor market, Poverty and Fiscal Budgets in Brazil", Texto para Discussao No. 839, IPEA, Rio de Janeiro.

Gao, Q. and C. Riskin (2009), "Market Versus Social Benefits: Explaining China's Changing Income Inequality", in D. Davis and F. Wang (eds.), *Creating Wealth and Poverty in Contemporary China*, Stanford University Press.

Gao, Q., I. Garfinkel and F. Zhai (2009), "Anti-poverty Effectiveness of the Minimum Living Standard Assistance Policy in Urban China", *New Review of Income and Wealth*, Series No. 55, Special Issue No. 1, July.

Gondim, C. (2010), "A Heterogeneity Analysis of the Bolsa Familia Programme Effect on Men and Women's Work Supply", Working Paper No.61, March, International Policy Centre for Inclusive Growth.

Grosh, M., C. del Ninno, E. Tesliuc and A. Ouerghi (2008), "For Protection and Promotion: The Design and Implementation of Effective Safety Nets", World Bank, Washington, DC.

Heckman, J. and C. Pages (2000), "The Cost of Job Security Regulation: Evidence from Latin America Labour Markets", NBER Working Paper No. 7773, Cambridge, Mass, June.

Hemson, D. (2007), "Mid-term Review of the Expanded Public Works Programme: Component 3: Analysis and Review", Commissioned by Southern Africa Labour and Development Research Unit, University of Cape Town, Rutgers School of Law and ITT, October.

Hemson, D. (2008), "Expanded Public Works Programme: Hope for the Unemployed?", *HSRC Review*, Vol. 6, No. 3.

Herd, R., Y. Hu and V. Koen (2010), "Providing Greater Old-age Security in China", OECD Economics Department Working Paper No. 750, February, OECD Publishing, Paris.

Hoffmann, R. (2006), "Transferências de renda e redução da desigualdade no Brasil e em cinco regiões entre 1997 e 2005", in R. Barros, M. Foguel and G. Ulyssea (eds.), *Sobre a recente queda da desigualdade de renda no Brasil*, IPEA, Brasília.

ILO (2008), *Global Wage Report 2008/2009: Minimum wages and collective bargaining: Towards policy coherence*, International Labour Office, Geneva.

ILO (2009), *Global Wage Report: 2009 Update*, International Labour Office, Geneva.

Immervoll, H. (2009), "Minimum-Income Benefits in OECD countries: Policy Design, Effectiveness and Challenges", OECD Social, Employment and Migration Working Paper No. 100, January, OECD Publishing, Paris.

Institute of Applied Manpower Research (2008), "All-India Report on Evaluation of NREGA: A Survey of Twenty Districts", New Delhi.

Klasen, S. and I. Woolard (2009), "Surviving Unemployment without State Support: Unemployment and Household Formation in South Africa", *Journal of African Economies.*

Leibbrandt, M., I. Woolard, A. Finn and J. Arden (2010), "Trends in South African Income Distribution and Poverty since the Fall of Apartheid", OECD Social, Employment and Migration Working Paper No. 101, January, OECD Publishing, Paris.

Lemos, S. (2004), "The Effects of the Minimum Wage in the Formal and Informal Sectors in Brazil", IZA Discussion Papers No. 1089, Institute for the Study of Labor (IZA), Bonn.

Lieuw-Kie-Song, M.R. (2009), "The South African Expanded Public Works Programme 2004-2014", Presentation given at the Conference on Employment Guarantee Policies, Levy Institute, June, New York.

Lima, E. and L. Scorzafave (2008), "Análise da evolução da desigualdade de renda no Brasil segundo fontes de rendimento – 1981 a 2004", mimeo.

Maloney, W. and J. Nunez Mendez (2003), "Measuring the Impact of Minimum Wages: Evidence from Latin America", NBER Working Papers No. 9800, National Bureau of Economic Research.

Martin, J. and H. Immervoll (2007), "The Minimum Wage: Making it Pay", *OECD Observer*, No. 261, May, OECD Publishing, Paris.

Mattos, E., F. Marques and S. Maia (2008), "Oferta de trabalho e transferências: evidências do efeito das condições impostas pelo programmea Bolsa Família", *XXXVI Anais da ANPEC*.

Medeiros M., T. Britto and F. Veras Soares (2008), "Targeted Cash Transfer Programmes in Brazil: BPC and Bolsa Familia", International Poverty Centre Working Paper No. 46.

National Commission for Enterprises in the Unorganised Sector (2006), *Social Security for Unorganised Workers Report*, May, New Delhi.

National Treasury Republic of South Africa (2010), *Budget Review 2010*, Pretoria, February.

OECD (1998), "Making the Most of the Minimum: Statutory Minimum Wages, Employment and Poverty", Chapter 2, *OECD Employment Outlook*, OECD Publishing, Paris.

OECD (2003), *Combating Child Labour: A Review of Policies*, OECD Publishing, Paris.

OECD (2004), "Employment Protection Regulation and Labour Market Performance", Chapter 2, *OECD Employment Outlook*, OECD Publishing, Paris.

OECD (2006), *OECD Employment Outlook, Boosting Jobs and Incomes*, OECD Publishing, Paris.

OECD (2007), *OECD Economic Surveys: India*, Vol. 2007/14, October, OECD Publishing, Paris.

OECD (2008a), "Declaring Work or Staying Underground? Informal Employment in Seven OECD Countries", Chapter 2, *OECD Employment Outlook*, OECD Publishing Paris.

OECD (2008b), *OECD Economic Surveys: South Africa*, Vol. 2008/15, July, OECD Publishing, Paris.

OECD (2009a), *OECD Economic Surveys: Brazil*, Vol. 2009/14, July, OECD Publishing, Paris.

OECD (2009b), *Pensions at a Glance: Special Edition Asia/Pacific*, OECD Publishing, Paris.

OECD (2010a), "The Global Crisis in Emerging Economies: The Jobs Impact and Policy Response", Chapter 2, *OECD Employment Outlook*, OECD Publishing, Paris.

OECD (2010b), *OECD Economic Surveys: China*, Vol. 2010/6, February, OECD Publishing, Paris.

OECD (2010c), "Going for Growth in Brazil, China, India, Indonesia and South Africa", Chapter 7, *Economic Policy Reform Going for Growth*, OECD Publishing, Paris.

Paes Souza, R. and L. M. Pacheco Santos (2009), "Measuring the Impact of Bolsa Família Programme Based on Data from Health and Nutrition Days", Food and Agriculture Organisation Working Paper No. 7, April, Rome.

Pages, C., G. Pierre and S. Scarpetta (2009), "Job Creation in Latin America and the Caribbean: Recent Trends and Policy Challenges", International Bank for Reconstruction and Development/World Bank, Washington, DC.

Papadimitriou, D. (2008), "Promoting Equality through an Employment of Last Resort", The Levy Economics Institute of Bard College Working Paper No. 545 *http://www.levy.org/pubs/wp_545.pdf*.

Posel, D., J. Fairburn and F. Lund (2004), "Labour Migration and Households: A Reconsideration of the Effects of the Social Pension on Labour Supply in South Africa", Ninth Annual Conference on Econometric Modelling for Africa, 30 June to 2 July 2004.

Rama, M. and W. Maloney (2001), *Income Support Programmes for the Unemployed in Latin America*, World Bank, Washington, DC.

Ravallion, M. (2007), "Geographic Inequity in a Decentralized Anti-Poverty Programme: A Case Study of China", World Bank Policy Research Working Paper No. 4303, August 2007.

Robalino D., M. Vodopivec and A. Bodor (2009), "Savings for Unemployment in Good or Bad Times", IZA Discussion Paper No. 4516, Bonn.

Scandizzo, P., R. Gaiha and K. Imai (2009), "Option Values. Switches, and Wages: An Analysis of the Employment Guarantee Scheme in India", *Review of Development Economics*, Vol. 13, No. 2.

Soares, F.V., R.P. Ribas and R.G. Osório (2007), "Evaluating the Impact of Brazil's Bolsa Família: Cash Transfer Programmes in Comparative Perspective", IPC Evaluation Note, No. 1, December.

Solinger, D. (2008), "The Dibao Recipients: Mollified Anti-Emblem of Urban Modernization", *China Perspectives 2008/4*.

United Nations Development Programme (2009), *Conditional Cash Transfer Schemes for Alleviating Human Poverty: Relevance for India*, April, UNDP India Office.

Venn, D. (2009), "Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators", OECD Social, Employment and Migration Working Paper No. 89, OECD Publishing, Paris.

Valentini, F. (2008), *Unemployment insurance Savings Accounts: An Overview*, Research Institute of the Finnish Economy, ETLA Paper No. 1136.

Vodopivec, M. (2004), *Income Support for the Unemployed: Issues and Options*, World Bank, Washington, DC.

Vodopivec, M. and M. Tong (2008), "China: Improving Unemployment Insurance", World Bank Social Protection and Labour Discussion Paper No. 0820.

Vodopivec, M. (2009), "Introducing Unemployment Insurance to Developing Countries", IZA Policy Paper No. 6, Bonn.

World Economic Forum (2009), *The Global Competitiveness Report 2009-2010*.

Wray, L. R. (2007), "The Employer of Last Resort Programme: Could it Work for Developing Countries?", International Labour Office, Economic and Labour Market Papers, *www.ilo.org/public/english/employment/download/elm/elm07-5.pdf*.

Zhu,Y. (2009), "A Case Study on Social Security Coverage in China", International Social Security Association Working Paper No. 7, ISSA, Geneva.

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Tackling Inequalities in Brazil, China, India and South Africa

THE ROLE OF LABOUR MARKET AND SOCIAL POLICIES

Greater integration into the world economy and important policy reforms have resulted in Brazil, China, India and South Africa becoming major actors in the globalisation process, with impressive results in terms of economic growth, social development and poverty reduction. But the benefits of stronger growth have not always been shared equally and income inequality has remained at very high levels.

Existing evidence suggests that the evolution of the distribution of income in these four countries is the result of many forces. These include demographic change, migration, unequal access to education, informal employment, existing regulations and their enforcement, social norms and cultural legacy. These forces are often interlinked and reinforce one another. However, as employment is the primary source of income for most households, understanding the impact of labour market outcomes is crucial.

This book focuses on the role of growth and employment/unemployment developments in explaining recent income inequality trends in Brazil, China, India and South Africa, and discusses the roles played by labour market and social policies in both shaping and addressing these inequalities. It includes the papers presented at the joint OECD and European Union High-Level Conference on Inequalities in Emerging Economies held in Paris in May 2010. This work is part of OECD's ongoing dialogue and co-operation with non-member economies around the world.

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