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Economic Policy Reforms
Going for Growth

PART I

Chapter 2

Structural Policy Priorities 2009: An Overview

Until the present downturn, there had been an improvement in the pace of convergence in GDP per capita of OECD countries relative to the best performing countries. Nevertheless, underlying performance weaknesses remain in many countries. This chapter provides an overview of broad long-term trends in economic performance and an updated set of policy priorities that have been identified in each country to address specific performance weaknesses. Many of the policy priorities that were deemed important two years ago still remain important in 2009. In particular, an emphasis on productivity-enhancing reforms remains, especially for the lower income OECD countries, with an increased emphasis on measures that enhance human capital. Although labour utilisation improved until recently in many countries, reforms of tax and benefit systems are identified as priorities in a large number of them.

Introduction

The objective of structural reform is to increase welfare. Welfare includes material standards of living as well as value of leisure, inequality of income, use of non-renewable resources and environmental services. Many of these aspects of welfare are difficult to measure and are not available on a timely basis. This report focuses on GDP per capita as its principal measure of material living standards. As previous editions of *Going for Growth* have demonstrated, there is a close relationship in most cases between GDP per capita and broader, though less timely, measures of economic well-being.

Differences in GDP per capita across OECD countries reflect in part different structural policy settings. Relatively low income per capita and a failure to converge towards the highest-income countries can be signs of policies not being as growth-friendly as they could be. Successive empirical studies by the OECD and beyond have sought to identify the policy levers that influence GDP per capita and its growth. As part of these exercises, indicators have been developed that summarise performance in key components of GDP per capita and the stance of related policies in a consistent way across countries and over time.

As in the 2005 and 2007 *Going for Growth* assessments, this chapter employs OECD indicators and studies to identify policy priorities to raise GDP per capita based on international benchmarking of performance and policies. Although other international organisations identify country-specific policy recommendations to improve economic performance, the process used to derive the *Going for Growth* policy priorities is unique (Box 2.1). Five policy priorities are derived for each OECD member country and the European Union, following a standardised approach described in Annex 2.A1. This chapter provides an overview of the policy priorities that have been identified to address specific performance weaknesses as well as broad trends in long-term growth performance over the recent past. The policy priorities are discussed in greater detail in the country notes in Chapter 3; the policy indicators used for benchmarking are presented in Chapter 4.

Box 2.1. **How does Going for Growth differ from country priority setting by other institutions?**

The *Going for Growth* exercise applies a systematic international benchmarking framework for all OECD member countries that relies mostly on objective policy and performance indicators that have been linked econometrically (see Annex 2.A1). This horizontal structural surveillance exercise supplements the country-specific surveillance that is reported in *OECD Economic Surveys*. While the *Going for Growth* approach is specific in many respects, several international organisations periodically carry out some types of related policy priority-setting for their member countries. These go beyond countries' own priority assessments, and include:

- *The European Commission's Lisbon Assessment Framework (LAF)*. This framework (first published in September 2008) was developed to assess progress by European Union member countries toward

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Box 2.1. **How does Going for Growth differ from country priority setting by other institutions?** *(cont.)*

the Lisbon targets. Its methodology takes inspiration from the *Going for Growth* exercise (including the use of international benchmarking), and it is also grounded in economic analysis linking policy with GDP-per-capita performance. The methodology considers growth rates in addition to income levels in identifying priorities, includes a broader set of policy areas (such as the underlying strength of public finances) and covers some policy domains where policy indicators are not available. It does this by relying more heavily on performance indicators. Moreover, the procedure imposes no limit on the number of policy priorities that can be determined for each country. The results derived from the assessment are intended to help underpin the policy priorities identified by the Commission and are published in the annual progress reports on the Lisbon Strategy.

- *IMF Article IV reports and* Financial Sector Assessment Program (*FSAP*) *assessments*. These reports and assessments are produced as part of the IMF's monitoring of the international monetary system and the economic and financial policies of its members. The Article IV reports provide an examination of country-specific policy developments, with a focus on risks to stability and short-term growth. The FSAP assessments are carried out as part of the Financial System Stability Assessments (with the World Bank) and focus on strengths, risks, and vulnerabilities of financial systems in member countries and financial sector development needs. These exercises tend to be focused on relatively short and medium-term policy issues.
- *World Bank Country Assistance Strategies*. These Strategies are negotiated plans that rely upon discussions with active borrowing governments, and use as their starting point a country's own development plans. They are then developed in consultation with country authorities, civil society organisations, and other stakeholders. Country strategies are focused on areas where the Bank feels it has a comparative advantage in the context of donor activities.
- *World Bank Doing Business Indicators*. The Doing Business exercise produces indicators that can be used to rank countries in terms of the costs a typical firm faces due to government regulations. The indicators are based on expert judgement, and can be used to prioritise areas for reform.*

The consistent approach of the *Going for Growth* exercise across a wide range of structural policy areas is what distinguishes it from most other policy priority-setting exercises. While many organisations carry out reviews of policies in specific areas (including the OECD, which carries out focused policy reviews in areas such as agriculture, education, environment, innovation, investment and regulatory policy), the relative breadth of the present exercise is also distinctive. It relies upon more in-depth work done by the OECD in specific areas, and is complemented by work on macroeconomic stability that is reported in the semi-annual *OECD Economic Outlook*.

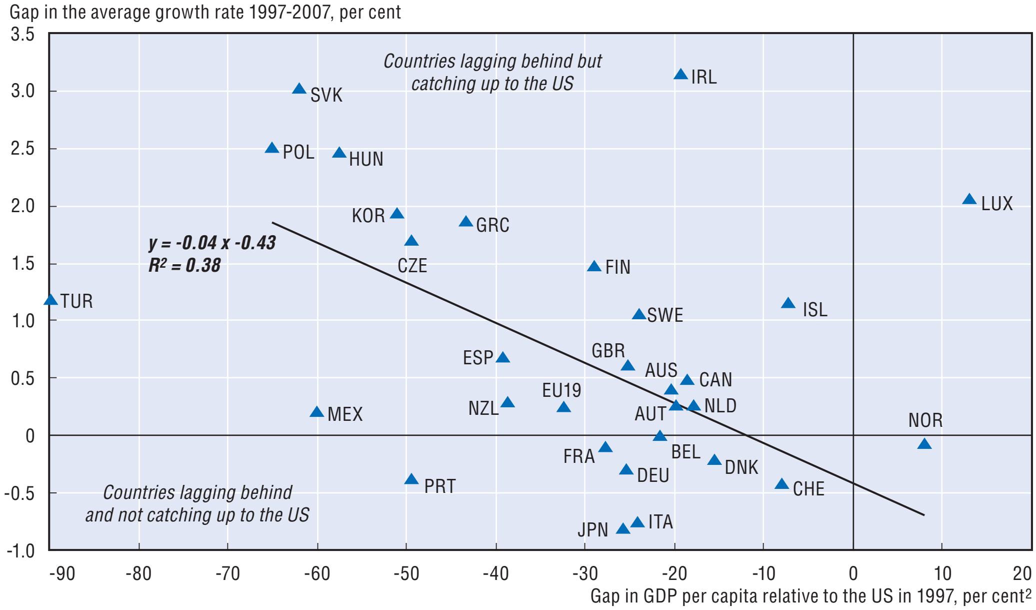
* Other organisations such as the UNDP (Human Development Index) and the World Economic Forum (Global Competitiveness Index) produce indicators that can be used to rank countries in specific policy/performance areas.

Growth performance in OECD countries: Key stylised facts

Twenty-one OECD countries and the European Union (EU19) made progress in converging toward the comparison country, the United States, over the ten years to 2007 (Figure 2.1).[1] This compares with the ten-year record two years ago, when there were only 18 countries in the convergence category, and the European Union was diverging slowly. The convergence was driven by an increase in labour utilisation in Europe, and a downward shift in productivity growth in the United States at a time when it recovered in Europe. However, while the fall in productivity growth in the United States appears to be partly structural, it is too early to tell whether the recent stabilisation in underlying trend

Figure 2.1. **GDP per capita levels and growth rates**

Gap *vis-à-vis* the United States[1]



1. The average growth rate of GDP per capita is calculated on the basis of volume data from national accounts sources. The level of GDP per capita is calculated on the basis of current PPPs. Ireland, Luxembourg and Turkey are detected as statistical outliers using the method of Hadi (1994). The regression line is estimated on individual countries excluding these outliers.
2. In the case of Luxembourg, the population is augmented by the number of cross-border workers in order to take into account their contribution to GDP.

Source: OECD, *National Accounts Database*; OECD, *Labour Force Statistics Database* and *OECD Economic Outlook, No. 84, Vol. 2008/2.*

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productivity growth in Europe is durable (Box 2.2). Only a few countries are catching up rapidly: besides Ireland,[2] where a sharp downturn may have put at least a temporary halt on convergence, only the countries with levels of GDP per capita that are less than one-half of the United States' (*i.e.* Hungary, Poland and the Slovak Republic) converged at a rate that exceeds 2% per year.[3] The ongoing financial crisis and its impact on activity may make it harder to discern convergence patterns in the years to come.

The 2007 gaps in GDP per capita *vis-à-vis* the comparison country can be broken down into contributions from labour productivity and labour utilisation (Figure 2.2). This decomposition (which is not dependent on the choice of the numéraire) shows that the countries can be divided into three groups, depending on the relative contributions:

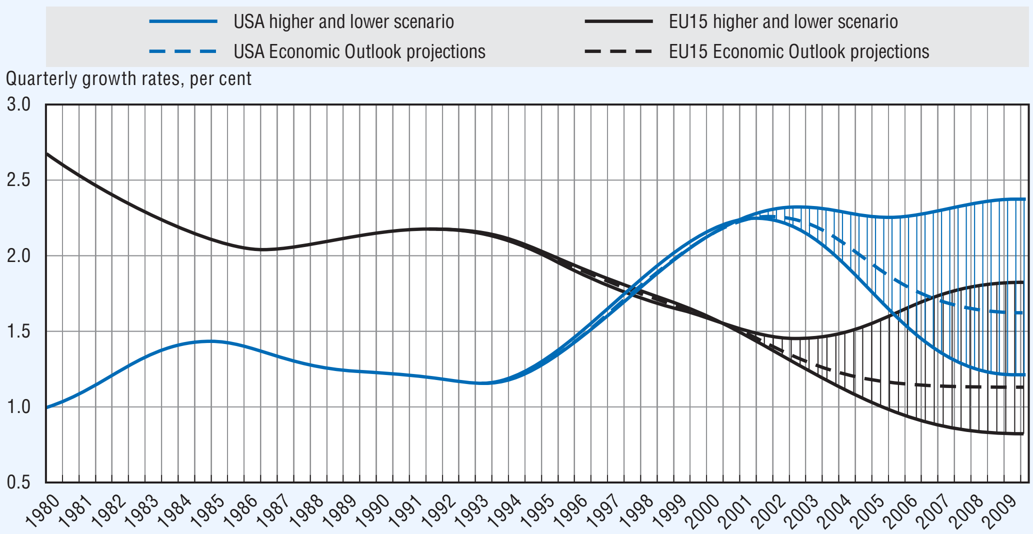
- *Mostly a productivity gap*: The gap for the ten lowest-income OECD countries is accounted for primarily by the effect of low labour productivity, given their lower levels of physical and human capital per worker, although the five lowest-income countries also have a substantial gap in measured labour utilisation. Among countries with higher incomes, for Australia, Canada, Iceland, Japan and Switzerland, the income gap *vis-à-vis* the comparison country reflects primarily productivity shortfalls.

Box 2.2. **The shift in EU-US productivity growth performance: a significant break-point?**

The sharp slowdown in US labour productivity growth over the past few years and the more recent stabilisation of labour productivity growth in Europe (before the crisis) raise important questions about future convergence paths. More precisely, annual US productivity growth had fallen to slightly above 1% in 2007 compared with around 3% in 2004 while that of the EU19 averaged about 1¼ per cent over the same period.

The growth of labour productivity is highly cyclical, which makes it important to analyse trend rates of growth in order to determine its sustainability. If productivity growth until 2009 evolves in line with projections in the *OECD Economic Outlook 83*, the slowdown in actual US labour productivity will be characterised as being in part cyclical, with the underlying growth trend (derived using a statistical filter) ½ percentage point off the peak reached in the early 2000s. At the same time, recent actual growth of European labour productivity may indicate that the decline in underlying productivity is coming to an end rather than representing an inversion of the trend. However, the range of uncertainty is wide for both estimates (see figure below).

Estimates of underlying growth rates in US and EU labour productivity



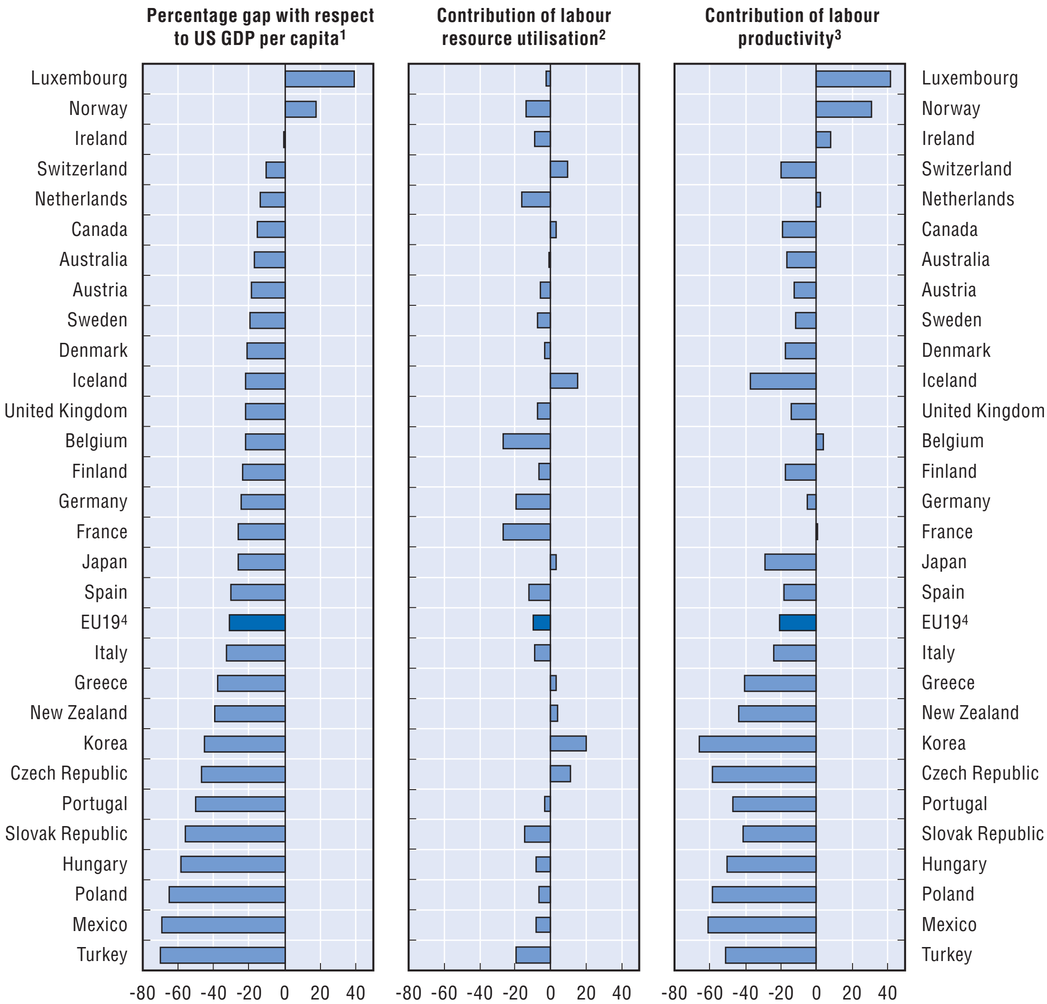
Note: Labour productivity is defined as GDP per hour worked. A Hodrick-Prescott filter is used to identify the trend and cyclical components for labour productivity growth, based on quarterly historical data through mid-2008 and a time-series forecast through end-2009. The upper and lower bound scenarios are based on 95% confidence intervals around a central scenario (not shown).

Source: Turner and Boulhol (2008).

A statistical breakpoint test suggests that while the trend increase in US labour productivity growth in the mid-1990s cannot be characterised as a decisive statistical break, the *difference* between United States and European growth rates indeed shows a significant break in 1995. While this breakpoint may be partly a result of the slowing down of the catch-up process of Europe with the United States, it also appears to be tied to shifts in the pattern of growth *within* Europe.

Labour productivity growth has diverged dramatically across European countries over the past two decades, with the cross-country variance in growth rates more than doubling over this period. Part of this divergence appears to be attributable to differential investments in information and communications technologies (ICT), with European countries that are more ICT-intensive enjoying higher productivity growth. Such a development also suggests that government policies made an important difference to this outcome, as earlier OECD studies (see *Going for Growth 2007*) have shown ICT investments to be driven heavily by regulation in product and labour markets.

Figure 2.2. **The sources of real income differences, 2007**



1. Based on 2007 purchasing power parities. In the case of Luxembourg, the population is augmented by the number of cross-border workers in order to take into account their contribution to GDP.
2. Labour resource utilisation is measured as total number of hours worked per capita.
3. Labour productivity is measured as GDP per hour worked.
4. EU19 is an aggregate covering countries that are members of both the European Union and the OECD. These are the EU15 countries plus the Czech Republic, Hungary, Poland and the Slovak Republic.

Source: OECD, *National Accounts Database*; OECD, *Economic Outlook 84 Database*, and OECD (2008), *Employment Outlook*.

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- *Mostly a labour utilisation gap*: The income gaps of Belgium, France, Germany and the Netherlands can be mostly accounted for by low labour utilisation. This divergence reflects a range of factors, including relatively lower working hours, lower participation rates for older workers and higher unemployment.[4]
- *Both significant productivity and labour utilisation gaps*: For the European Union, as well as the Nordic EU countries, Spain and Italy, the income shortfall reflects gaps with the United States in both productivity and labour utilisation.

Areas of policy priorities

In order to address countries' performance weaknesses in terms of labour productivity or utilisation, structural policy priorities have been selected on the basis of standardised criteria and expert judgement, as in past exercises (see Annex 2.A1 for methodology). The summary of the policy priorities that follows covers both measures that are aimed at correcting weaknesses in productivity performance and those intended to improve labour utilisation (the priorities are listed in Annex 2.A2). However, it should be kept in mind that a policy reform selected with a view to improve performance in one area may also have beneficial effects in the other area, though the opposite can also be the case such as when reform to raise employment of low-skilled workers leads to lower average productivity because of compositional effects (see Chapter 8).

The policy priorities determined in this edition of *Going for Growth* are broadly similar to those reported in the 2007 edition, with 86% of the previous 155 policy priorities retained in all or in part; 27% of these priorities (corresponding to 23% of the total) were broadened, refocused, narrowed or merged.[5] Of the 21 priorities (14%) that were replaced, sufficient policy action was taken on 13 of these to drop them based on reforms undertaken (Box 2.3), with the remaining 8 replaced based on a re-consideration of newly available policy-performance evidence. While the results of this exercise reflect some reform progress, they also imply that much work is still left to be done.

Box 2.3. **Reforms resulting in 2007 policy priorities being dropped in *Going for Growth 2009***

	2007 priorities	Action taken
Hungary	Reduce shadow-economy activities	The campaign against shadow activities intensified, including stricter screening. Healthcare coverage has been tied to social security contributions to bring workers into registered activities.
Italy	Improve the framework for risk taking	New codes were enacted to improve minority shareholders' rights and financial market transparency.
Japan	Encourage innovation	The government announced the "Innovation 25" plan to encourage innovation up to 2025 by enhancing the mobility of researchers, expanding the use of competitive research grants and extending the length of visas for foreign researchers.
Mexico	Reform the tax system	A tax reform aiming at broadening the tax base and at the same time improving spending efficiency was approved.
Netherlands	Strengthen competition in network industries	Full ownership separation of the energy distribution networks and supply companies was implemented from July 2008. Competitive tenders were opened up public transport activities to private operators.
New Zealand	Facilitate access to childcare for working parents	Since July 2007, subsidies provide up to 20 hours per week early childhood education for three and four-year-olds on an opt-in basis.
Norway	Complete the pension reform	In 2007, a new White Paper on pension reform was presented to promote actuarially neutral old-age pensions in the PAYG system, with a flexible retirement age from 62 onwards. The proposals in the White Paper were implemented with minor changes in 2008.
Poland	Promote competition in professional services and telecommunications	The telecommunications regulator made progress in boosting competition.
Portugal	Continue public administration reform	The reorganisation of the public administration is underway. An employee mobility scheme is in operation. The implementation of a new system for careers, contracts and pay is starting, introducing elements of performance-related salaries.

Box 2.3. **Reforms resulting in 2007 policy priorities being dropped in *Going for Growth 2009*** *(cont.)*

	2007 priorities	Action taken
Slovak Republic	Strengthen law enforcement	The government passed a new law making the requirement to publish public procurement notices more widely applicable.
Spain	Reform the pension system	The reform that became effective in early 2007 introduced additional restrictions to partial retirement, an increase in the effective contribution period to acquire pension rights and stronger incentives to continue work at old ages. It also extended survivors' pension rights to unmarried couples.
Switzerland	Remove non-tariff trade barriers	In 2008, the government adopted a simplified procedure that took a further step towards to the application of the "Cassis de Dijon" principle.
United Kingdom	Improve work incentives for low-paid parents and second earners	The 2007 Budget announced an increase in the threshold for the Working Families' Tax Credit. The government also initiated public consultations on a proposal to introduce more stringent work testing for lone parents receiving out-of-work benefits.

Policies to improve labour productivity performance

Labour productivity is a critical component of economic growth, and can be stimulated with a variety of policies that facilitate investments in physical, human and intangible capital, and reduce inefficiency in their use and allocation. Relevant policies in this domain include removal of unduly anti-competitive product market regulations, reduction of agricultural subsidies and a variety of other policies that would strengthen competition and enhance trade and financial openness, as well as reform of education systems to improve the skills of the workforce in the longer term. The largest number of identified policy priorities in this area relate to product market regulation (including sectoral regulation), although their number has decreased considerably over time, as discussed below. At the same time, the number of policy priorities in the area of education has tended to rise. This shift partly reflects the progress that has been made in reducing anti-competitive market regulation, especially in members of the European Union, but also stems from a better understanding of the essential role of education policies in promoting long-term growth.

Product market regulation

Regulatory barriers to competition may reduce the pace of catch-up to the most efficient economies, by *inter alia* interfering with business entry and exit decisions, reducing the extent of innovation activity and creating distortions in market structure and incentives. While the overall stance of product market regulation has converged considerably over the past decade across OECD countries (see Chapter 7), there are areas of regulation that are restrictive in nearly all economies. As a consequence, policy priorities in the area of product market regulation were still identified for all but three OECD economies (Finland, Sweden and the United Kingdom).

The OECD economies with the lowest productivity levels also have the highest administrative burdens on business: the Czech Republic, Hungary, Korea, Mexico, Poland, Portugal and Turkey. The dismantlement of these economy-wide barriers was identified as a priority, as they substantially limit growth. A few countries still retain distortionary FDI

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restrictions or other arrangements that limit the benefits of spillovers and knowledge flows, including Canada, Iceland, Japan, Korea and Mexico.

The most broad-ranging recommendations for product market regulation relate to the European Union as a whole, where barriers to trade remain in many service sectors, despite the considerable progress that has been achieved in moving towards a single market in goods.[6] The 2006 Services Directive, which is due to be fully transposed into law in 2009, should ease barriers to cross-border establishment, although some service sectors are exempt and it leaves some anti-competitive national laws in place. It is a priority for the European Union to ensure that member states implement the directive and consider common standards where mutual recognition is difficult.

Another priority area for the European Union is to make further progress to improve the operation of network sectors, where there are considerable efficiency gains still to be realised, especially in energy, ports and postal services. A number of EU countries need, as a matter of priority, to further reform these and other network sectors, including Austria, the Czech Republic, Germany, Greece, Hungary, Ireland, Italy, Portugal and the Slovak Republic. In railways, stronger competition is identified as a priority for Austria and Portugal, while in telecommunications, further regulatory reforms are a priority in Greece, Hungary, Ireland and Portugal. In some network sectors more competition through greater entry is needed, while in others, privatisation is considered to be the most promising means to improve efficiency, once financial markets return to their normal functioning.

Outside of the European Union, a range of countries have network sectors where reforms are seen to be a priority. These include Australia, Canada, Iceland, Japan, Korea, Mexico, Norway, New Zealand, the Slovak Republic, Switzerland and Turkey, with reforms of their energy sectors the most common priority, although reforms of transport and water distribution are also important. Restructuring of public enterprises in network sectors is also called for in several countries, notably Iceland, Mexico and Norway.

Further reforms of inherently competitive activities, such as retail distribution and professional services, are identified as priorities in many countries. For retail distribution, the priorities typically refer to easing entry for larger stores and/or liberalising opening hours (Austria, Belgium, Denmark, France, Hungary, the Netherlands and Spain). In some cases they cover just the national level but often they also cover the regional or local level, where planning rules can interfere with opening of more efficient outlets. Easing of restrictions in professional services (accounting, architecture, legal and business services) was considered to be a priority in a number of EU countries (Austria, France, Germany, Hungary, Italy and Luxembourg), as well as across provinces in Canada.

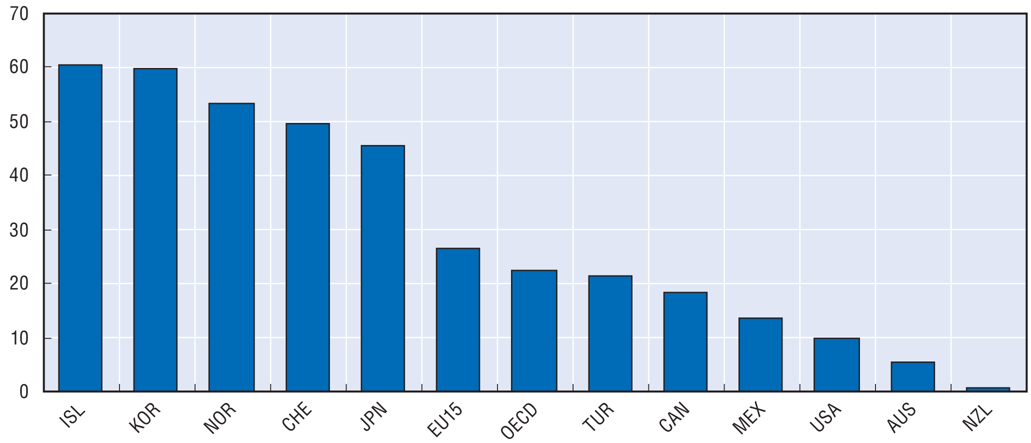
An area of particular importance for reform, as revealed by the recent financial crisis, is the regulatory and supervisory framework of the financial system, with a substantial overhaul being a priority for the United States and Iceland. For the European Union, one of the five policy priorities is to better integrate its financial markets and improve financial stability arrangements. The financial sector is an area where much reform will be required in the coming years.

Agriculture

Another sector in need of further reform in many OECD countries is agriculture (see Figure 2.3). The Doha round of trade talks has, so far, failed to conclude an agreement that would reduce trade-distorting support for agricultural products. However, farm

Figure 2.3. **Producer support estimates for agriculture, 2007**[1]

Percentage of gross farm receipts



1. The monetary value of transfers from consumers and budgetary payments to producers. Provisional data.

Source: OECD (2008), *Agricultural Policies in OECD countries: At a Glance.*

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incomes have increased as a result of high world food prices which reduce the market support element of producer support measured relative to farm receipts. The hike in world food prices was in part driven by mandates requiring higher shares of biofuels in transport fuels and other support, thereby providing indirect support to agriculture and intensifying distortions in agricultural markets.[7] At the same time, there are growing doubts about the efficiency or even the effectiveness of such policies – at least given current biofuel technologies – in achieving their objectives of cutting greenhouse gas emissions and reducing reliance on fossil fuels.

Though they have fallen, still relatively high world food prices offer a good opportunity for countries to revamp their farm policy, and reform of agricultural support is identified as a priority for the United States, the European Union and Japan, as well as for Iceland, Korea, Norway and Switzerland. The level of support should be reduced and further de-linked from production, especially in Korea, Japan and the United States. Also, subsidies and mandates for biofuel use in the United States and the European Union should be withdrawn, and trade barriers against more efficient biofuel suppliers should be eliminated.

Human capital

Education policies support human capital accumulation, which is an important determinant of long-term growth performance. Early education helps to broaden opportunity and stimulate subsequent learning, while secondary and tertiary education improves workforce skills and enhances absorptive capacity. The latter policy also supports innovation, a particularly important source of productivity growth. While much action was registered in this area in the 2008 edition of *Going for Growth*, the number of policy priorities in this area has tended to increase. Recommendations cover a range of areas, including:

- *Pre-primary education*. Partly with the aim of increasing the future attainment and performance of disadvantaged students, it is a priority in Australia, Denmark, Germany, Ireland, Poland, Switzerland and the United Kingdom to strengthen the quality and content of their early education programmes, as well as to increase enrolment rates.

- *Primary and secondary education*. A range of different remedies are recommended, based to a large extent on PISA scores and policies associated with strong performance:[8] greater autonomy and accountability in Iceland, Luxembourg and the United States; more testing in Spain and Sweden; improvements in teacher training and quality in Greece, Norway, New Zealand and Portugal; greater funding and accountability in Mexico, Portugal and Turkey; and reform of vocational training in Hungary, Portugal and the Slovak Republic.
- *Tertiary education*. Policies to improve higher education performance and output are a priority for Austria, the Czech Republic, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Poland, the Slovak Republic, Sweden, Switzerland and Turkey. In most cases, these include introduction of, or increases in, tuition charges to increase resources for higher education and raise incentives for timely study completion. Higher tuition fees are to be combined with increased availability of student loans with income-contingent payback to ensure that financial constraints do not discourage tertiary studies.

Other policy areas

A wide range of additional policies that could improve labour productivity, and thereby raise GDP per capita, are also identified as policy priorities:

- *R&D spending and innovation*. Interactions between business and higher education institutions are an important input into innovation, and policies to enhance cooperation with universities are recommended for Italy, Korea and New Zealand. In addition, because of the potential spillovers from R&D, greater support for it through tax incentives and focused government funding is recommended for Ireland, Italy, Korea and New Zealand.
- *Improve public infrastructure*. Public infrastructure can in some cases have large effect on productivity, as discussed in Chapter 6, and is found to be in need of greater levels of investment in Ireland, New Zealand, Poland and the United Kingdom.
- *Planning policies*. Policies related to the allocation of land are problematic in several countries and corrective action is recommended with respect to fees and planning or zoning regulations in the Netherlands, Poland and the United Kingdom. Restrictive policies in this area can also inhibit labour mobility.
- *Government and governance reforms*. Recommendations to improve public management practices and incentives were made for the Czech Republic, Hungary, Iceland and the United Kingdom. The rule of law in particular could be strengthened in Mexico.
- *General taxation*. As discussed in Chapter 5, poorly structured tax systems can create unnecessary distortions that reduce productivity. It is recommended as a priority for Canada, Portugal, Japan and the United States to broaden tax bases, shift taxation towards consumption taxes and/or reduce corporate taxes.
- *Restrain health care costs*. Excessive spending on health care wastes resources that could be put to more effective use, and funding for such spending may involve efficiency costs. For example, it may also have adverse effects on labour market performance by increasing non-wage labour costs. Raising health care efficiency is seen as a priority for the Czech Republic, New Zealand, Switzerland, the United Kingdom and the United States.

Policies to improve labour market performance

Policies to support labour utilisation have important direct effects in enhancing the productive capacity of the economy, and they are found to be a priority in virtually all OECD countries.[9] Moreover, the number of priorities have increased in this area over time, especially in the area of labour market regulation, as a result of the relatively sluggish pace of reform. In Continental European countries especially, and notwithstanding improvements in performance in recent years, labour force participation rates, particularly among older workers, and in some cases women, are comparatively low; unemployment rates are also high and annual hours worked are short. In other OECD countries, hours worked can be low, even if participation rates are high.

Average and marginal taxation of labour income

Labour taxes can act as a strong deterrent to labour force participation[10] and often have a particularly negative effect on weekly hours worked of second earners (see Chapter 5). Moreover, and especially when combined with rigidities in take-home pay, they may also reduce labour demand. To reduce the efficiency costs of taxation, it is a priority to reduce overall labour tax burdens, by themselves, or in combination with social security contributions, in Belgium, the Czech Republic, Finland, Germany, Greece, Hungary, Poland and Turkey; furthermore, cutting marginal or marginal effective tax rates is a priority in Australia, Austria, Denmark, Finland, Italy, the Netherlands, Norway and Sweden. To ensure that such tax cuts do not destabilise public finances, and despite possible dynamic effects on revenues, priorities in this area are generally accompanied with recommendations to finance the resulting loss in revenues, including through broadening of tax bases and shifts towards taxation of consumption.

Social benefits

An important area of concern for labour utilisation is the disincentive for individuals to remain in the labour force at older ages. The structure of pension systems, in particular how longer working periods and shorter retirement periods influence the level of pension benefits, in addition to the availability of early-retirement schemes, have an important effect on decisions to continue work.[11] Reforms that pursue actuarial neutrality are needed in order to eliminate disincentives to work. Even though reforms have taken place in some of the countries, reducing disincentives in the retirement systems is a priority in Austria, Belgium, Finland, France, Greece, Luxembourg, the Slovak Republic and Turkey.

The tightening of other early exit routes from the labour market has coincided with an increase in disability (and sickness) benefit recipients in a number of countries and the stock of benefit receivers remains high, despite measures intended to control the inflows. Corrective measures in this area are a priority in Australia, Denmark, Hungary, the Netherlands, Norway, Sweden and the United Kingdom. More broadly, the unemployed need to be given stronger incentives to work in Australia, Canada, Belgium, Finland, Luxembourg, the Netherlands and the Slovak Republic. The identified priorities include providing better services for job search and training, as well as restructuring benefit schemes to impose duration limits or reductions of support over the duration of an unemployment spell.

Tax policies and support for childcare can have a strong effect on women's participation in the workforce, as well as their working hours. Reducing impediments to female participation, especially through better availability of childcare, is identified as a priority in Germany, Ireland, Korea, the Slovak Republic and Switzerland.

Labour market regulation and wage policies

Excessive job protection reduces the dynamism of the labour market, damaging productivity and having adverse effects on the employment of certain groups. The modest changes in job protection in recent years have come through easing of regulations on temporary contracts and exclusions of certain groups. Virtually no change has occurred for permanent contracts. As a result, a segmentation of the workforce has emerged in a number of countries, with persons on permanent contracts enjoying a high degree of security and persons on revolving fixed-term contracts suffering from both insecurity and reduced human capital investment (as well as, in some countries, reduced access to credit). It is a policy priority for many OECD countries to harmonise and relax protection of permanent contracts *vis-à-vis* temporary contracts, including in the Czech Republic, France, Germany, Japan, Korea, Luxembourg, the Netherlands, Sweden and Spain. The uncertainty concerning severance and compensatory payments constitutes a separate barrier to hiring and should also be reduced, especially in France and Spain. Overall job protection needs to be liberalised across-the-board in Portugal and Turkey.

A variety of institutions can limit the geographical mobility of the labour force, which also impedes matching of jobs to skills. In the European Union as a whole, greater pension scheme portability is needed, while in Denmark, Poland, the Slovak Republic, Sweden and Spain in particular, moves are required to reform benefit and housing policies in order to improve labour mobility across regions.

Minimum wages that are excessively high, either on their own or in conjunction with non-wage labour costs, can further limit the number of jobs that are suitable for the young and low-skilled. In order to address this concern, France, Greece, Luxembourg and Turkey should limit the increase in their minimum wages to help these workers in finding suitable employment.

The cost of labour can also be driven up by collective wage agreements, that at times are administratively extended to workers and employers who are not party to the original settlements, and which can lead to too high labour costs for some enterprises, sectors and regions. To make wages more responsive to local conditions, thus increasing employment at the local level, it is a priority to make wage setting more decentralised in Australia, Belgium, Finland, Italy and Spain.

The evolution of policy priorities since 2005

Over the course of the *Going for Growth* process since 2005, the composition of policy priorities has gradually shifted from productivity-augmenting priorities towards those that are more focused on labour utilisation, although the largest number of priorities remains associated with improving labour productivity (Table 2.1). The decrease in productivity-enhancing policy priorities has been driven primarily by progress in reducing anti-competitive product market regulations, with part of this decrease balanced by shifting priorities towards policies that enhance human capital. A larger shift has occurred towards priorities aimed boosting labour utilisation, notwithstanding improvements in labour market performance in recent years. Much of this shift has focused on priorities to reform labour market regulations while the number of priorities dealing with labour taxes and

Table 2.1. **Distribution of policy priorities by *Going for Growth* edition**

	2005	2007	2009
Productivity			
Product market regulation	47	39	38
Agriculture	7	7	7
Human capital	16	22	24
Other policy areas	28	23	21
Total	*98*	*91*	*90*
Labour utilisation			
Average and marginal taxation on labour income	12	11	13
Social benefits	27	31	27
Labour market regulation and collective wage agreements	16	18	20
Other policy areas	2	4	5
Total	*57*	*64*	*65*
Overall	**155**	**155**	**155**

social benefits has remained more stable, reflecting much slower progress in this area: a concern highlighted in previous work on the political economy of structural reform (see *Going for Growth 2007*).

More worrying, the number of previous policy priorities where action was sufficient for them to be dropped fell by more than half between 2007 and 2009, leaving three-quarters of countries in the most recent exercise with priorities in nearly the same areas as before, suggesting that the pace of progress slowed, over a period when economic performance was good. That said, the current crisis may well stimulate structural reforms, as discussed in the previous Chapter.

Notes

1. While the United States is used as the numéraire in the decomposition in Figure 2.1, the choice of policy priorities is based on an assessment of performance and policy settings relative to the OECD average, see Annex 2.A3.
2. In Ireland, the catch-up is more evident for output than for income per capita. The distinction is largely due to the large repatriation of profits from foreign-owned companies and terms-of-trade losses due to falling prices of domestically produced computers and related equipment.
3. The academic literature has found some support for long-run convergence of growth rates across countries, conditional on institutional settings, although the empirical evidence is weaker within the OECD, likely a result of the smaller set of countries (Mankiw *et al.*, 1992; Bernanke and Gürkaynak, 2001; OECD, 2003; Durlauf *et al.*, 2005).
4. This gap in labour utilisation would be even larger if more consistent data on hours worked were taken into account. According to estimates presented in *Going for Growth* 2008, consistently measured hours worked for the United States could be about 10% higher than elsewhere in the OECD. However, since official data on hours worked are typically derived in conjunction with national accounts estimates of output, they are used here, even if, in principle, the consistent data are more comparable across countries.
5. Of the 155 overall priorities (five priorities for each of the 30 OECD members and the European Union), 134 of the 2007 priorities (86%) were retained in all or in part, with 36 of these priorities broadened (19), refocused (11), narrowed (2) or merged (4). Twenty-one policy priorities were replaced. After the merger of four priorities (into two), this means that the current exercise contains 23 new priorities, of which 8 are based on indicators and 15 are based on country-specific expertise.
6. Progress reflects in part the concentration of EU competencies in product markets.

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7. In the United States, minimum content requirements for biofuel use in gasoline are substantial and rising. The European Union as a whole has also set substantial mandates on the content of transport fuel, and several EU member states have set even higher targets.
8. These policies were discussed in detail in *Going for Growth 2008*.
9. Average labour productivity and participation are interlinked as a result of differences in the quality of the active and inactive workforce (see Chapter 8).
10. In some lower-income OECD countries, particularly Greece, Hungary and Turkey, high labour taxes reduce employment in the formal sector and contribute to maintaining resources in inefficient informal activities.
11. These policies were discussed in detail in *Going for Growth 2005*.

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ANNEX 2.A1

How Policy Priorities Are Chosen in Going For Growth

The *Going for Growth* structural surveillance exercise seeks to identify five policy priorities for each OECD member country and the European Union. Three of these policy priorities are based on a systematic benchmarking approach, using internationally comparable OECD indicators of policy settings and performance. The additional two priorities are often supported by indicator-based evidence, but may also draw on country-specific expertise. These two priorities are meant to capture any potential policy imperatives in fields not covered by indicators.

For the selection of the three indicator-based policy priorities, the starting point is a detailed examination of labour utilisation and productivity performance relative to the OECD average, so as to uncover specific areas of relative strength and weakness compared with other OECD countries. Each performance indicator is juxtaposed with the corresponding policy indicators, where OECD empirical research has shown a robust link to performance, to determine where performance and policy weaknesses appear to be linked. This evaluation process is carried out for each of the approximately 50 areas where OECD policy indicators provide coverage.

As an example, Figure 2.A1.1 shows, for a sample country, a scatter plot of pairings of policy indicators (on the horizontal axis) with corresponding performance indicators (on the vertical axis). Since many of the approximately 50 policy indicators are associated with more than one performance area, there are more than 100 potential pairings to be examined. The indicators of policy and performance are standardised by re-scaling them so that each has a mean of zero and a cross-county standard deviation of one, with positive numbers representing positions more growth-friendly than the OECD average. The scatter plot is thus divided into four quadrants, depending on whether a country's policy-performance pairing is below or above the average policy or performance score.

Candidates for recommendations thus fall into the lower left quadrant, where policy indicators and corresponding performance are *both* below average. In most countries there are more than three unique policy areas that qualify as potential priorities (for instance, Germany had 16 candidates in the 2009 exercise). When there are more than three candidate policy priorities, the list has been narrowed using a combination of country expertise with the following criteria: *i)* the estimated quantitative impact of reforms in the policy area on GDP per capita as determined in previous OECD analysis, *ii)* the normalised distance of the policy stance from the benchmark (the OECD average), and *iii)* recent trends in policy and performance. The limit on the number of priorities means that for some

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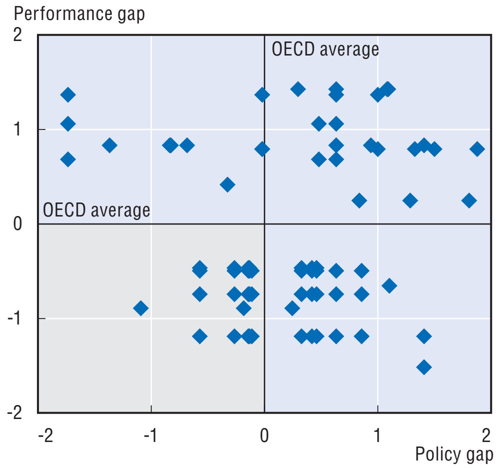
Figure 2.A1.1. **Example of the selection of candidates for *Going for Growth* priorities**



Note: Points represent policy-performance indicator pairings.

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countries, obvious policy imperatives may not be identified as priorities because other priorities are deemed as more important.

The empirical research linking policy with performance includes a long series of panel studies on a large number of OECD countries carried out by the Secretariat. These studies include the *OECD Growth Study* (2003), the *OECD Jobs Strategy* (1994) and its reappraisal (OECD, 2006), and a wide range of other reports, which took inspiration and drew extensively on the academic literature.

ANNEX 2.A2

Structural Policy Priorities by Country and Performance Area

	Labour utilisation	Productivity
Australia	Continue reform of disability benefit schemes to encourage work by existing claimants with substantial work capacity.	Promote competition in network industries by encouraging greater regulatory consistency and market integration across states.
	Improve incentives for workforce participation by reducing marginal effective tax rates, especially for second wage earners.	Improve early education to raise the efficiency of the labour force in the longer term.
	Preserve decentralised wage bargaining to maintain a close link between productivity and wage growth.	
Austria	Reduce disincentives to work at older ages by cutting fiscal subsidisation of early retirement and tightening eligibility criteria for disability benefits.	Promote competition in network industries by reducing ownership restrictions and other barriers to entry.
	Strengthen incentives to work and entrepreneurship by reducing marginal taxes on labour income.	Raise graduation rates from tertiary education by giving more autonomy to universities to select students and set tuition fees.
		Promote competition in services by reducing statutory regulation of trades and professions, and abolishing compulsory chamber membership
Belgium	Reduce disincentives to work at older ages by phasing out remaining early retirement options.	Promote competition in retail distribution by further easing regulation on zoning and opening hours.
	Reduce tax wedges on low-income workers to increase employment opportunities for this group.	
	Reform the wage bargaining system so that wages better reflect local labour market conditions.	
	Reduce unemployment benefits with duration to strengthen work incentives.	
Canada		Reduce barriers to competition in network industries.
		Further reduce barriers to foreign ownership to facilitate transfer of new technology and management practices from abroad.
	Reform the employment insurance system by introducing a firm-level employer experience rating.	Further reduce barriers to competition in professional services to increase labour mobility and efficiency.
		Reduce non-neutralities in the business tax system and move the tax base toward consumption.
Czech Republic	Cut the costs of employment protection legislation (EPL) for regular workers to stimulate hiring.	Raise funding for tertiary education by introducing tuition fees backed by student loans with income-contingent repayments.
	Ease labour shortages by improving work incentives through further reforms of the tax-benefit system.	Improve the business environment by further streamlining administrative procedures for start-ups.
		Improve public sector efficiency by reforming health care and pension systems.

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	Labour utilisation	Productivity
Denmark	Reduce marginal tax rates on labour income to cut disincentives to work longer hours. Refocus sickness and disability benefit schemes in order to encourage work by those with substantial work capacity. *Reduce housing subsidies and abolish rent regulation to minimise housing market distortion and facilitate labour mobility.*	Continue liberalising opening hours in retail trade and promote competition in publicly funded services. *Improve educational achievement at early ages to raise efficiency of the labour force in the longer term.*
Finland	Strengthen work incentives by further reducing the tax wedge on labour income. Phase out early retirement pathways to improve work disincentives at older ages. Strictly enforce job search requirements to reduce the incidence of long-term unemployment. *Promote greater flexibility in centralised wage agreements to expand employment opportunities.*	*Reduce the university study times by improving incentives for students.*
France	Stimulate labour demand for youth and the low-skilled by allowing for a relative decline in the minimum cost of labour. Reduce the duality of the labour market by cutting the costs of EPL for regular workers. *Further reduce the implicit tax on continued work at older ages to raise employment of those above the age of 55.*	Reduce regulatory barriers to competition in retail distribution and professional services. *Extend the autonomy of universities to increase efficiency of tertiary education and increase funding by introducing a fee system backed by income-contingent loans.*
Germany	Reduce social security contribution rates to strengthen work incentives. *Reduce disincentives to full-time female labour force participation by moving to individual taxation of couples and improving access to child-care facilities.* *Ease employment protection legislation on regular jobs to promote regular employment.*	Promote competition in professional services and network industries by reducing regulatory barriers to entry. Improve education outcomes by increasing participation in, and enhancing the quality of, early childhood care and education.
Greece	Reduce disincentives to work at older ages by further reforming the old-age pension system and tightening access to disability pensions. Reduce the tax wedge on labour income to strengthen work incentives. *Stimulate labour demand for youth by introducing a sub-minimum wage for young people.*	Promote competition in network industries by privatising energy and transport corporations and facilitate access to network services. *Raise the quality of education through improvements in teaching quality and advanced technology at schools.*
Hungary	Reduce the tax wedge on labour income to strengthen work incentives. Continue reform of disability benefit schemes to encourage work by those with substantial work capacity.	Ease business regulations by simplifying entry and exit procedures to encourage competition. *Make the education system more efficient to raise overall human capital.* *Promote public sector efficiency.*
Iceland		Improve education outcomes by strengthening school accountability and improving teacher quality. Reduce producer support to agriculture. Lower barriers to entry in the electricity sector and reduce foreign ownership restrictions in the fisheries and energy sectors to increase competition. *Accelerate performance measurements and management reforms in the public sector to raise public-sector efficiency.* *Reform financial sector regulation and supervision.*

	Labour utilisation	Productivity
Ireland	Strengthen work incentives for women by greater targeting of child support.	Strengthen competition in network industries by facilitating entry and access to network components. Enhance R&D spending and innovation by ensuring that government support is more concentrated and by improving the links between universities and the private sector. *Continue to upgrade infrastructure to reduce bottlenecks.* *Raise educational standards by extending the availability of pre-primary education.*
Italy	Reduce the tax wedge on labour income, especially for low-income workers, to strengthen work incentives. *Decentralise wage bargaining in the public sector to promote greater flexibility in wage setting more generally.*	Reduce public ownership and regulatory barriers to promote competition. Improve educational outcomes by increasing private investment in tertiary education through higher tuition fees and private sector financing. *Increase R&D expenditure through tax incentives and partnerships between industry and universities.*
Japan	Reduce the duality of the labour market by cutting the costs of EPL for regular workers.	Ease regulations in network industries to promote competition. Reduce producer support to agriculture. *Reform the tax system to rely more on indirect taxes to reduce the efficiency cost of taxation.* *Enhance inward FDI by ensuring that the M&A market is open to all firms to enhance transfers of new technologies from abroad.*
Korea	Adjust employment protection for regular workers to reduce the incentives to hire non-regular workers. *Strengthen female labour force participation by improving access to child-care facilities.*	Ease regulations in network industries to stimulate competition and efficiency. Reduce producer support to agriculture. *Improve the innovation system by upgrading the quality of universities through deregulation and competition.*
Luxembourg	Reduce work disincentives by decoupling unemployment benefits from minimum wage increases. Reduce disincentives to work at older ages by phasing out pre-pension and early retirement schemes. *Reform employment protection by making the regulation of collective dismissals more flexible.*	Improve educational achievement by increasing school autonomy to strengthen human capital. *Reduce barriers to entry in professional services by lowering licensing and education requirements.*
Mexico		Raise achievement in primary and secondary education to raise efficiency of the labour force. Promote competition in network industries by reducing regulatory barriers to entry. Reduce barriers to foreign ownership to enhance technological transfers from abroad. *Reform the state-owned oil company to enhance efficiency.* *Improve the "rule of law" to strengthen investor confidence.*
Netherlands	Ease employment protection legislation for workers on regular contracts by making the current dual system of dismissal more predictable. Lower marginal effective tax rates to strengthen incentives to full-time labour force participation. Tighten access to disability benefit schemes to encourage work by those with substantial work capacity. *Reduce the maximum duration of unemployment benefits and strengthen activation measures to reduce the incidence of long-term unemployment.*	*Facilitate the entry of large retail stores and phase out restrictions on shop-opening hours to promote competition.*

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	Labour utilisation	Productivity
New Zealand	*Increase health sector efficiency to reduce labour costs, thus encouraging job opportunities.* .	Reduce barriers to competition and regulatory uncertainty in network industries. Improve educational achievement, in particular among ethnic minorities, to raise efficiency of the labour force. Raise effectiveness of R&D support by fostering collaboration between universities and the private sector. *Improve road infrastructure by relaxing regulation and implement congestion-charging schemes.*
Norway	Refocus disability and sickness benefit schemes to encourage work by those with substantial work capacity. *Reduce marginal income tax rates to strengthen incentives to full-time labour force participation.*	Reduce the scope of public ownership by resuming privatisation. Reduce producer support to agriculture. *Raise the efficiency of education by improving teacher training and publishing the result of a national school assessment.*
Poland	Reduce the tax wedge on low-income workers to stimulate demand for, and supply of, such workers. *Increase housing supply by reforming zoning arrangements.*	Remove barriers to entrepreneurship by streamlining the system of licenses and permits. Improve the efficiency of education by improving the provision of pre-school education and introducing fees in tertiary education backed by income-contingent repayments. *Increase transport infrastructure investments by reforming public procurement legislation.*
Portugal	Ease employment protection legislation and simplify dismissal procedures for workers on permanent contracts to reduce labour market segmentation.	Improve secondary attainment to raise efficiency of the labour force. Reduce the administrative burden on business to stimulate entrepreneurship and competition. *Promote competition in network industries by easing regulatory barriers to entry and ensuring third-party access.* *Simplify the tax system and broaden the corporate tax base to reduce the efficiency cost of taxation.*
Slovak Republic	Raise work incentives for women by shortening the duration of parental leave entitlements in favour of childcare subsidies. *Improve the activation of the long-term unemployed by expanding training measures to reduce high incidence of long-term unemployment.* *Reform housing policies through the establishment of an effective private rental market to stimulate labour mobility.*	Raise education achievement by fostering integration of Roma children and extending tuition fees to full-time students backed by income-contingent repayments. Promote competition by reducing barriers to entry in network industries and liberal professions.
Spain	Limit the administrative extension of collective agreements to promote greater flexibility in wage determination. Reduce labour-market duality by cutting the costs of EPL for regular workers. *Remove regulatory impediments to the development of the private rental housing market and withdraw subsidies for owner-occupied housing.*	Improve secondary education by introducing standardised school testing and raising school autonomy. *Strengthen competition in retail distribution by facilitating the establishment of shopping centres.*
Sweden	Reduce marginal tax rates to strengthen incentives to work longer hours. Refocus sickness leave and disability benefit systems to encourage work by those with substantial work capacity. *Reform housing policies to encourage labour mobility.*	Ease EPL to facilitate human resource management and stimulate innovation. *Improve education by introducing regular tests for children and accreditation to enhance teacher competence.*

	Labour utilisation	Productivity
Switzerland	Strengthen incentives to full-time labour force participation for women by developing pre-school services and moving to individual taxation of couples.	Remove barriers to competition in network industries. Reduce producer support to agriculture.
	Contain health-system costs by assigning hospital funding to insurers in full.	*Improve tertiary education by developing quality assessments of universities and tuition fees backed by student loans with income-contingent repayments.*
Turkey	Contain minimum wage increases to below average wage increases to stimulate employment of low-skilled workers in the formal sector.	Improve educational achievement to raise the efficiency of the labour force.
	Ease employment protection and facilitate temporary work to stimulate hiring of regular workers in the formal sector.	*Simplify product market regulations, especially the sectoral licensing rules, to encourage competition.*
	Reduce incentives to retire early and to take work in the informal sector by making the pension system actuarially neutral.	
United Kingdom	Further reform the disability benefit scheme by extending the Pathways to Work scheme to all existing claimants to encourage work by those with substantial work capacity.	Improve the education achievement of young people by raising participation in quality early-childhood education.
		Improve public infrastructure, especially for transport, to reduce bottlenecks.
		Improve the efficiency of health and other publicly-funded services.
		Improve planning regulations to encourage firm entry and competition.
United States	Limit increases in labour costs and improve efficiency by reforming health insurance markets.	Improve primary and secondary education by completing implementation of "No Child Left Behind" to raise efficiency of the labour force.
		Reduce producer support to agriculture and reconsider support for biofuels.
		Strengthen financial market supervision.
		Reduce the efficiency cost of taxation by broadening the tax base and shifting toward consumption taxes.
European Union	*Raise labour mobility by improving the portability of pension and social welfare benefits to improve intra-EU labour mobility.*	Ease regulatory barriers to internal trade and ensure the full transposition of the Services Directive.
		Raise competition in network industries by removing intra-EU barriers to trade.
		Reduce producer support to agriculture and reconsider support for biofuels.
		Deepen financial integration by intensifying efforts to integrate retail financial markets.

Note: The priorities in italics are not necessarily based on indicators.

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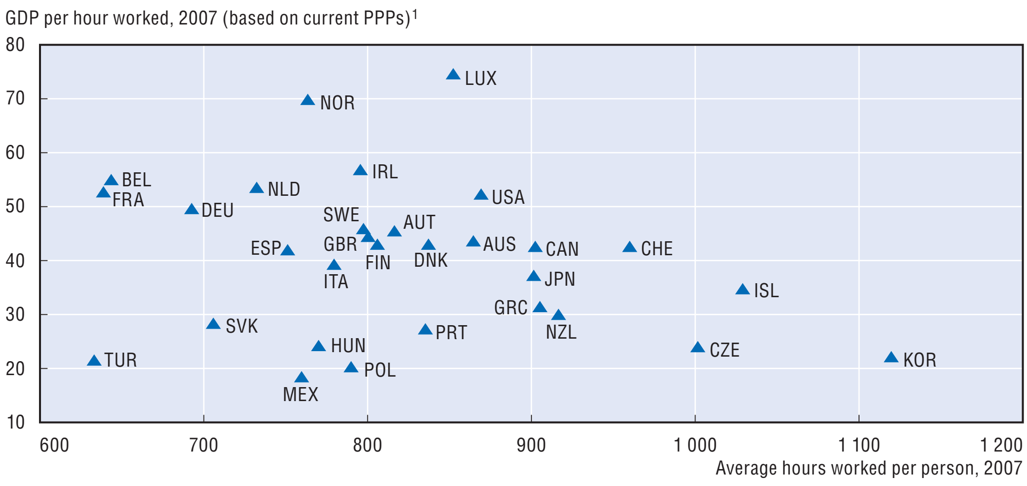
ANNEX 2.A3

Choice of the Numéraire in Going For Growth

While the average OECD performance is used to identify areas of relative weakness in setting priorities in *Going for Growth* (see Annex 2.A1), the United States is used as numéraire to compare levels of GDP per capita. This approach provides a relatively straightforward way of summarising the data and gauging how well countries do compared with US performance. Conceivably, there are alternative ways of accomplishing this task using more sophisticated methods, although a more complex approach could also possibly reduce the transparency of the exercises. This Annex assesses the extent of the trade-off between robustness and transparency, and discusses the adequacy of the current practice of using the United States as numéraire in these types of comparisons.

Relatively high levels of GDP per capita achieved by the United States do not automatically qualify the United States as the "leader". For instance, based on 2007 figures, Luxembourg and Norway achieved higher levels than the United States (see Table 2.A3.1). However, in both these countries, GDP per capita is boosted by special factors: the exploitation of gas and petroleum resources in Norway and a large financial sector in Luxembourg. Abstracting from these countries, the United States records the highest level of GDP per capita in the OECD area.

Figure 2.A3.1. **Labour productivity and utilisation levels in 2007**



1. In the case of Luxembourg, the population is augmented by the number of cross-border workers in order to take into account their contribution to GDP.

Source: OECD, *National Accounts Database*; OECD, *Labour Force Statistics Database* and *OECD Economic Outlook 84 Database*.

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Table 2.A3.1. **Efficiency scores relative to the United States and the efficiency frontier**

Based on 1997-2007 data

	GDP per capita with respect to:			GDP per capita with respect to:	
	United States	Frontier[1]		United States	Frontier[1]
Australia	0.83	0.83	Japan	0.73	0.80
Austria	0.82	0.84	Korea	0.54	0.95
Belgium	0.77	0.76	Mexico	0.28	0.44
Canada	0.84	0.86	Netherlands	0.85	0.80
Czech Republic	0.52	0.79	New Zealand	0.60	0.74
Denmark	0.80	0.82	Norway	1.21	1.00
EU19[2]	0.68	0.71	Poland	0.34	0.51
Finland	0.77	0.80	Portugal	0.48	0.60
France	0.74	0.69	Slovak Republic	0.43	0.47
Germany	0.74	0.70	Spain	0.67	0.64
Greece	0.64	0.70	Sweden	0.80	0.82
Hungary	0.41	0.52	Switzerland	0.88	0.94
Iceland	0.83	1.00	Turkey	0.28	0.36
Ireland	0.93	0.91	United Kingdom	0.76	0.77
Italy	0.66	0.70	United States	1.00	0.98

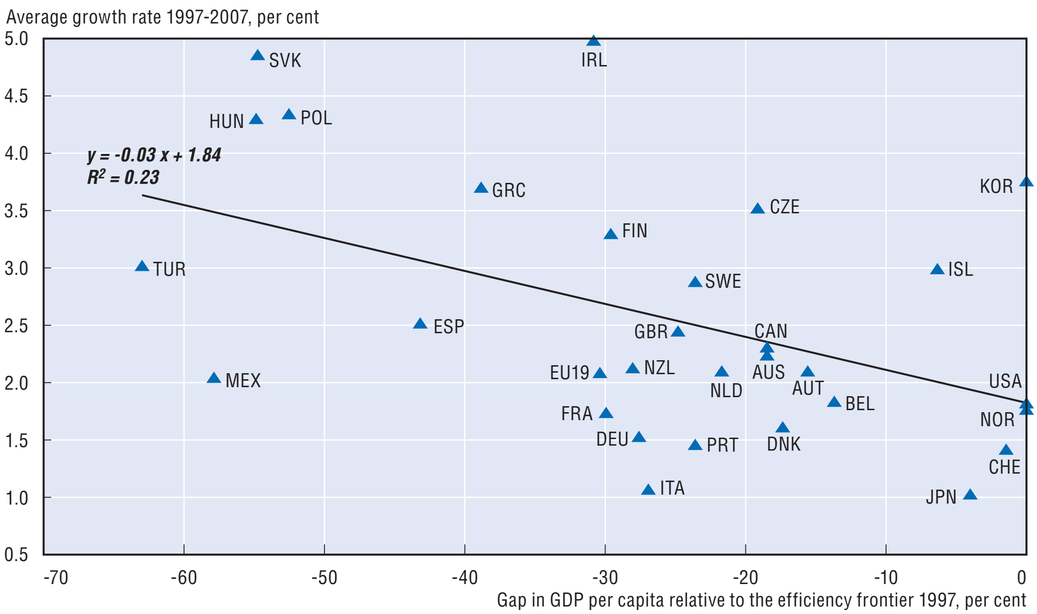
1. Excluding Luxembourg since it is found to be a statistical outlier. Its GDP relative to the US is 1.38.
2. The EU19 is a weighted average of these countries' scores, as it is not included in the DEA as a unit.

However, the United States does not exhibit the best performance in either of the major subcomponents of GDP per capita: labour utilisation and productivity. Different combinations of the two components can yield a given level of GDP per capita. This variation in observed labour utilisation and productivity pairs across OECD countries can be exploited to calculate efficiency measures relative to a theoretical country at an efficiency frontier, utilising a technique called Data Envelopment Analysis (DEA). This technique allows the estimation of a piecewise-linear production possibility frontier. Observations that lie inside this frontier and the parts of the frontier that are perpendicular to either axis are considered inefficient. The efficiency score for each observation is calculated by measuring the distance to the production possibility frontier. This calculation is made by simply scaling up the outputs – labour utilisation and labour productivity in the current exercise – while keeping the ratio between them constant.

The exercise is run over the pool of labour utilisation and productivity levels for all OECD countries since 1997, to ensure that longer-term trends in the composition of growth are captured (Table 2.A3.1). Luxembourg appears to be an outlier and is identified as such by a multivariate outlier identification method.[1] The technical efficiency score for each of the remaining countries is calculated relative to a hypothetical situation that is located on the intersection of the production possibility frontier and the line passing through the corresponding observation and the origin. The correlation between the GDP per capita series scaled by the GDP per capita of the United States (*i.e.* current practice) and the efficiency score relative to the hypothetical situation (on the efficiency frontier) is very high. In the pooled data, the correlation is 0.86, while using only the 2007 cross-sectional data, it is 0.76.[2] The relative position of countries is similar for most countries on both measures, with the main exceptions being lower-income OECD countries, Iceland, Korea and New Zealand. However, the apparently strong performance of these countries with good labour utilisation may be somewhat misleading: the efficiency scores reflect whether a given combination of labour productivity and labour utilisation is efficient *given the current ratio between them*; yet there may still be considerable scope for these countries to raise labour productivity, whether through technological progress or capital deepening, thus raising GDP per capita above the frontier.

An additional exercise is run to assess the role of convergence in observed GDP-per-capita growth rates by basing the analysis on GDP-per-capita gaps relative to the efficiency frontier rather than the United States. In essence, Figure 2.1 in the main text is replicated with the efficiency figures obtained from the Data Envelopment Analysis as opposed to gaps in GDP per capita *vis-à-vis* the United States. As can be seen in Figure 2.A3.2, the goodness of fit and the strength of association between the gap measures in 1997 and the observed growth rates over 1997-2007 remain similar, leaving the results from the two approaches closely in line with each other. The primary difference is that the gap is reduced for those countries whose labour productivity is relatively weaker than their labour utilisation, such as Mexico and Turkey, while it is increased for those countries with greater weakness with labour utilisation, such as France and Germany.

Figure 2.A3.2. **GDP per capita levels *vis-à-vis* the efficiency frontier and growth rates**[1]



1. The average growth rate of GDP per capita is calculated on the basis of volume data from national accounts sources. The level of GDP per capita is calculated on the basis of current PPPs. No statistical outliers are detected using the method of Hadi (1994). The regression line is estimated on individual countries (excluding the EU19 grouping).
2. The efficiency frontier combines the highest possible levels of labour utilisation and productivity. They are calculated based on Data Envelopment Analysis.

Source: OECD, *National Accounts Database*; OECD, *Labour Force Statistics Database* and *OECD Economic Outlook*, No. 84, Vol. 2008/2.

StatLink http://dx.doi.org/10.1787/533837814665

Notes

1. Outliers are determined using the method of A.S. Hadi (1994).
2. If Luxembourg is included in the analysis, the pooled correlation remains relatively high, at 0.67.