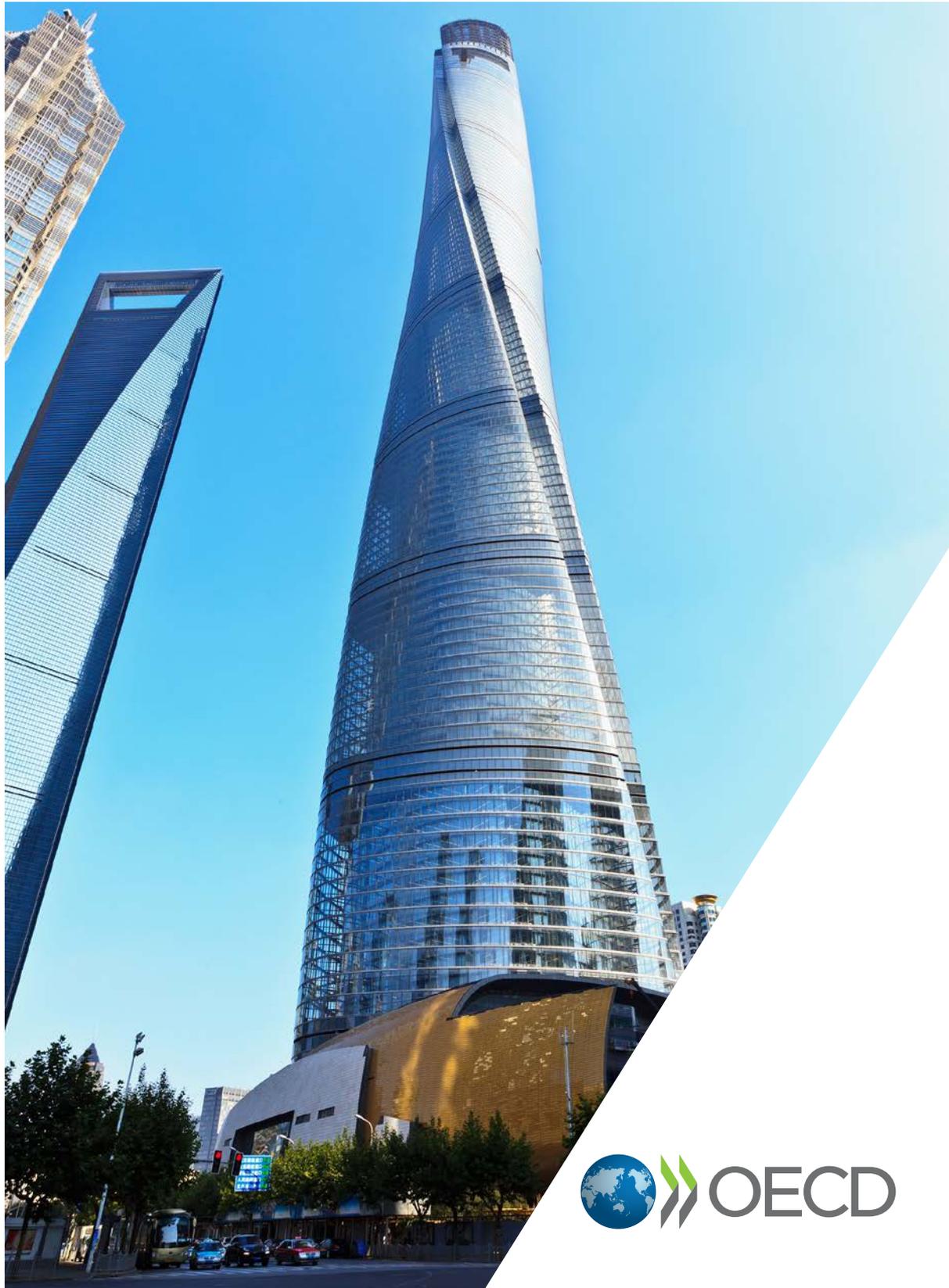




CHINA IN A CHANGING GLOBAL ENVIRONMENT

March 2015



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Initiated by the OECD and the National Development and Reform Commission of the People's Republic of China (NDRC), the report has been prepared by the OECD for the NDRC, to provide policy recommendations for the formulation and implementation of China's 13th Five-Year Plan for Economic and Social Development.

The document was prepared by the OECD Secretariat. Juan Yermo and Victor Duggan coordinated the report, under the guidance of Gabriela Ramos and Luiz de Mello. The main contributors are: Vincent Koen, Margit Molnar and Ben Westmore (Economics Department); Kensuke Tanaka, Derek Carnegie (Development Centre); Misako Takahashi, Kevin Tu, Paolo Frankl, Laszlo Varro (International Energy Agency); Virginia Robano (Centre for Entrepreneurship, SMEs and Local Development); Gert Wehinger, Andrea Goldstein, Ania Thiemann, Michael Chapman, Fianna Jurdant, Thomas Dannequin (Directorate for Financial and Enterprise Affairs); Alessandro Goglio, Michele Cecchini, Andrea Bassanini (Directorate for Employment, Labour and Social Affairs); Janos Bertok, Chad Burbank, Edwin Lau, Ioannis Kaplanis, Zsuzsanna Lonti, Tatyana Teplova, Julio Bacio Terracino, Chloé Lelivre (Public Governance and Territorial Development Directorate); Irène Hors and Li Yan (Global Secretariat Relations); Nadim Ahmad (Statistics Directorate); Peter Avery, Molly Leshner, Brunella Boselli, (Directorate for Science, Technology and Innovation); Kelsey Burns, Przemyslaw Kowalski, Aurelia Nicault (Trade and Agriculture Directorate). Caitlin Connelly provided co-ordination support in the preparation and translation of the publication. Isabelle Renaud provided production and administrative support.

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Foreword

As preparation continues for the 13th five-year plan, China is at a crossroads. It is confronting the challenge of transforming what has been up to now a highly successful development model so that it can sustain stronger, fairer, greener and more balanced growth in the face of structural shifts domestically, and a rapidly changing global environment.

Having sustained double-digit growth rates for more than three decades, China is a shining example of how economic lift-off can be achieved through concerted and comprehensive reforms. As growth dropped out of top gear in the 1990's, the Chinese authorities showed impressive dexterity in adjusting the growth model by implementing another round of reforms. This heralded China's entry to the WTO, and another decade of rapid export and investment-led growth.

Growth is beginning to slow as the working-age population shrinks and the scope for catch-up diminishes. As demand rebalances in favour of more household consumption, China needs to step up the latest round of reforms if it is to avoid the middle-income trap and ensure shared prosperity for all citizens. In the 21st century knowledge-based economy, this increasingly means that productivity gains will be the key growth driver, necessitating initiatives spanning a broad range of policy domains. At the same time, there is a need to improve the environmental sustainability of the Chinese growth model by limiting carbon emissions and air pollution while improving the security and diversity of energy supply.

China has been successful in integrating into the regional and Global Value Chains (GVCs) that increasingly characterise global trade. However, it now faces growing competition from other countries in areas where it held historical comparative advantage, such as an abundant, low-cost labour supply. To move up the value chain, while serving its increasingly sophisticated domestic market, China needs to put greater focus on innovation and knowledge-based capital, while phasing out counter-productive barriers to trade and investment, particularly in services.

As market forces come to play a more central role in the economy, efforts will be needed to improve the business environment. Top priorities should include investing in human capital, facilitating labour mobility, easing access to finance for small entrepreneurs, reducing distortions to factor markets and eliminating harmful energy subsidies. China also needs to foster healthy competition in sectors where it is weak (such as in professional services and network sectors) while enforcing quality standards in under-regulated sectors (such as retail and land transport). There will also be a need to ensure a level playing field between state-owned enterprises (SOEs) and private operators, whether domestic or foreign, and to strengthen corporate governance and promote integrity across public and private sectors alike.

To underpin a successful transition, elements of the state apparatus will also need to adapt and become more responsive to the needs of private citizens and firms. In particular, there is a need to strengthen rule of law, modernise and promote a culture of integrity in the public administration, and align the revenue raising capacities of sub-national governments with their spending mandates.

We welcome the opportunity, both through this report and the accompanying *All on Board: Making Inclusive Growth Happen in China*, to provide timely input for the preparations for the 13th Five-Year Plan. We look forward to supporting China's transition to a new, sustained, sustainable and inclusive growth model.



Angel Gurría
Secretary-General, OECD

Executive Summary

China has experienced rapid growth over the past decades, achieving middle-income status and lifting hundreds of millions of its citizens out of poverty. At the same time, the structure of the economy has changed fundamentally, with agriculture falling from roughly a third of the economy at the outset of reforms under Deng Xiaoping in 1978 to around 10% in recent years. The share of manufacturing has remained more or less stable at around a third of value added, but its productivity increased greatly owing to incentives for efficiency gains in the state-owned and collective sectors, as well as the growing role of the private sector. The service sector has exhibited the most remarkable growth, doubling its share of the economy since the outset of reforms to reach 46% by 2013.

Even in the face of the global financial crisis, growth has held up relatively well. Due at least in part to this cyclical challenge, however, GDP growth has slowed over the past five years, falling to 7.4% in 2014. The Chinese government accepts, and OECD projections suggest, that slower rates of growth are the “new normal” in light of a range of structural factors, including population ageing and slower investment and export growth. At the same time, shifting patterns in global production, finance, investment, trade, innovation and energy are giving rise to, or increasing the salience of, opportunities and challenges for China’s continued development. It is imperative, therefore, that China not only addresses its domestic challenges, but does so in a way that responds to emerging global trends, so as to achieve sustained, inclusive growth, and avoid the ‘middle-income trap’.

China is already in the process of rebalancing its economy towards greater reliance on domestic drivers of growth, in particular consumption. This transition was underpinned by the 12th Five-Year Plan (FYP) and has been encouraged by the development of social programmes, such as public health and pension systems, which are also helping make growth more inclusive (see companion report *All on Board: Making Inclusive Growth Happen in China*). In order to continue its fast convergence in living standards with more prosperous societies, China will also need to increasingly rely on multifactor productivity gains as the key engine of growth. Labour productivity in both manufacturing and services are under 10% of the US level, demonstrating the distance to the technology frontier. Although the agriculture sector is a much smaller share of the economy than in the past, there is also ample scope to improve its productivity while easing resource constraints by strengthening agriculture innovation.

A possible policy roadmap for sustaining this transition towards a more inclusive, high-productivity and knowledge-based economy - that will ultimately support a transition to high-income status - would include initiatives spanning a broad range of policy domains.

Moving up the Global Value Chain to Ensure China’s Continued Competitiveness

China’s growth prospects will be shaped by a global economic landscape characterised by the continued shift in economic weight away from OECD economies, increased market-determination of interest and exchange rates, intensifying trade and foreign investment integration and growth increasingly driven by the accumulation of Knowledge Based Capital (KBC). With other emerging-market economies competing with China to attract investment, and as abundant labour and capital accumulation fade in importance as domestic growth drivers, China needs to prioritise boosting productivity, moving up the value chain, and fully integrating into existing and emerging global value chains (GVCs). Achieving these goals calls for continued efforts to remove growth-hampering restrictions on trade and investment, to allow for more efficient allocation of resources through market mechanisms, to promote a thriving and competitive private sector, and to put greater focus on innovation.

Despite major reforms in recent years, China still retains important barriers to trade and investment, particularly in services, which account for a growing part of value-added trade. Some important policy initiatives in this regard could include:

- Expanding the list of “non-sensitive” areas and industries that can receive foreign investment through a filing procedure (instead of administrative approval by the State Council, MOFCOM and local government)
- Exploiting the full potential of trade facilitation measures, in particular on information availability, simplification and harmonisation of documents, automation, and streamlining of procedures; and
- Addressing barriers to services trade as identified in the OECD Services Trade Restrictiveness Index (STRI), including barriers to foreign entry, insufficient transparency of domestic regulations and administrative burdens.

Over the last decade, China has vastly expanded its innovation capability, but more needs to be done. R&D expenditure has risen to more than 2% of GDP in 2013, overtaking the EU average, but it is still behind the United States, at 2.8% of GDP, and Japan, at almost 3.4% of GDP. While the number of patent applications by Chinese residents has also soared, innovation output is still lagging in terms of international patenting and trademark registration. Other indicators of science and innovation performance - such as the number of universities in the top 500 globally, publications in top scientific journals and international co-inventions - also fare poorly by OECD standards. To some extent, the dominance of state-owned enterprises (SOEs) in certain sectors has tended to dampen the pressures to innovate that normally arise from competition. Indeed, China’s gross R&D expenditure is largely concentrated in the SOE sector. Levelling the playing field for domestic firms, particularly in sectors where SOEs dominate, would help spur competition-induced innovation.

China has also taken steps to improve the framework conditions necessary to underpin innovation, such as reforming tax incentives and increasing public expenditure on R&D, but much more can be done. Key areas for reform in the public science and technology (S&T) system include clarifying the roles of the three categories of public research institutions (commercial innovation, social welfare and basic research); establishing appropriate governance and funding mechanisms so that they can fulfil their missions; and broadening the focus of innovation policy to support more fundamental research to complement extensive efforts in applied and experimental R&D. Chinese firms must also be supported in developing their own intangible assets, such as high-quality intellectual property, including through further improvements in the intellectual property rights (IPR) regime, as well as better enforcement. Innovative entrepreneurs also need to be incentivised by further improving access to finance.

To transition to a high-productivity, knowledge-driven economy the skills of China’s labour force will need to be upgraded. Although China has the world’s largest pool of human resources for S&T, the shares of the population with tertiary education or doctoral degrees in S&T are still extremely low by OECD standards. Reforms recently announced by the State Council aiming to improve the transparency of the university recruitment and entry process, and to expand access to university for students from rural areas and the less developed Central and Western regions, are welcome developments in this regard. However, China still lacks a critical mass of world-class researchers, and could better tap into the global talent pool, including the Chinese diaspora. Policy efforts should also be made to improve the internal labour mobility of highly-qualified researchers and improve the transparency of the public R&D funding system.

Reform to school and university curricula should continue to be informed by labour market needs. Institutionalised consultation between employers, government and education administrators would help to anticipate the human capital needs of an evolving economy (for instance, in the ‘green’ economy). There is also a need for well-designed, high-quality vocational education and training programmes at the post-secondary level. As these require a strong workplace training component if

they are to be effective and relevant for the labour market, each programme should contain a standard minimum period of workplace training and encourage local associations to manage and support the training programmes in participating firms. Moreover, there is a need for raising the quality in workplace training, which calls for national standards on training programmes.

Continuing to invest in education, health care and broadening access to the social protection system would not only ensure that the benefits of economic development are shared more broadly across the population, as argued in *All on Board: Making Inclusive Growth Happen in China*, but would also boost productivity and underpin the transition to the knowledge-based economy. Sustained investment in education and skills is essential for inclusiveness, since it opens up opportunities for workers to compete for better paid jobs. At the same time, such investment in human capital is an important element of pro-growth policies that improve labour productivity and remove impediments to effective labour utilisation. Efforts to improve the health status of the population can deliver improvements in multidimensional living standards while at the same time further bolstering labour utilisation and productivity. Moreover, so long as the system is well designed not to discourage labour force participation, broader access to social protection and safety nets could promote labour mobility and encourage budding entrepreneurs to take the necessary risks.

In the face of potentially catastrophic climate change, as well as China's own challenges in terms of securing its energy supply and reducing air pollution in its cities, mean comprehensive reforms to the energy sector will be necessary. The IEA recommends that this be based on four pillars: 1) promoting market-oriented energy sector reform; 2) improving energy security and diversification; 3) increasing and reinforcing measures for environmental protection, especially emissions reduction; and 4) further increasing international cooperation. Renewable energy is one of the most promising low-carbon options deployed at a large scale in China. The country has already become the world market leader in most renewable energy technologies as well as in carbon capture and storage. This is a good example of where China's energy and environmental goals coincide with the imperative to move up the value chain and foster a knowledge-driven economy.

Developing a stronger and better-functioning market-based economy

Responding to the dynamic global environment, supporting a knowledge-driven economy and ultimately moving up the value chain will require a broad array of reforms that allow the market to play a more prominent role in the economy, notably in factor markets – capital, labour and land – but also in some key product markets. In particular, reforms in the areas of price-setting, market entry and competition should feature prominently in China's structural reform agenda. Pro-competition reform goes hand-in-hand with the liberalisation of product market regulations and can do much to enhance China's productivity. Competition is a disciplining device within firms, putting pressure on managers to improve efficiency, but it also increases the aggregate productivity of a sector by allowing more efficient firms to grow.

There is a need for more comprehensive reforms, therefore, that foster the framework conditions necessary for a thriving private sector. Such important domestic reforms can thus have a double-dividend: improving the efficiency and potential growth rate of the economy while making China competitive higher up the value chain, both in terms of price and in terms of meeting higher labour and environmental standards.

Currently, factor markets appear more distorted than product markets, calling for corrective measures. Financial repression, though diminishing, still contributes to misallocation of capital by distorting the relative prices of financial assets, including savings. Similarly, non-market determination of land prices also leads to the sub-optimal use and allocation of land resources. This also sees China out of line with norms in OECD economies, for example. Notwithstanding recently announced reforms,

barriers to labour mobility, stemming mainly from the *hukou* system, are set to continue making it difficult for labour to move to where it would be valued most, thereby undermining overall economic efficiency and inclusiveness. Energy is also heavily subsidised, including polluting fuels, which affects both the health status of the population and the allocation of resources in the economy. Addressing these distortions will require increased reliance on market-determined interest rates for allocating credit; market-determined price setting of industrial land and land-use fees; further reforms to the *hukou* system that facilitate managed migration to the most dynamic economic centres; and the removal of implicit or explicit energy subsidies, starting with the highest CO₂ emissions content.

On the product market side, there are many cases of over- or under-regulation, which need to be addressed expeditiously. The extent of competition/industry structures varies from monopolies/oligopolies with one or a few competitors in some markets to unfettered competition among scattered producers in others. Some network industries (such as telecommunications) have high entry barriers and regulated prices. State involvement in various aspects of business operations appears widespread and takes the form *inter alia* of price controls and command and control regulation. Overall, China's Product Market Regulation indicator for command and control regulation (as calculated by the OECD) is above the OECD average, indicating scope for reducing barriers to competition in some sectors. In particular, controls on fees charged by professional service providers – such as accountants, architects, engineers and legal service providers – should be relaxed together with price controls in some network industries, notably road transport.

Conversely, competition is fierce in most manufacturing industries, as well as some services such as retail and land transportation, but further regulatory reform is needed to ensure fair competition in these sectors. Where effective regulation is absent, many producers engage in cut-throat price competition, endangering product quality and safety, rather than gaining advantage through innovation. This “race to the bottom” often leads to counterfeiting and disregard for product safety regulations. Establishment and enforcement of standards alongside raising consumer awareness and enhancing consumer protection are therefore key steps towards promoting fair competition. Chinese policymakers also need to foster an environment in which firms pay due regard to occupational health and safety, as well as environmental protection.

In support of pro-competition reforms there is a need to appropriately align institutional capacity. China would benefit from strengthening its competition policy framework by focusing on reducing regulatory fragmentation, for example. This can be achieved, for instance, by clearly defining the competences of the different institutional actors in charge of enforcement, and by increasing transparency in the decision making process.

There is a need for a single over-arching institution tasked with maximising regulatory quality. Experience across OECD countries points to the need for a comprehensive approach to the development and implementation of regulatory policy that cuts across governmental portfolios. A key pillar of this approach is a specific institution responsible for the overall quality of regulation located as close as possible to the centre of government. This institution should be responsible for taking decisions and assessing the final trade-offs on policies and their legal implementation. China currently lacks such an institution, despite the many players involved in the preparation of laws and regulations. Such a role could conceivably be played by the Legislative Affairs Office of the State Council (LAO), by the NDRC, or by a new institution.

Fair competition also requires further modernisation of state-owned enterprises (SOEs). Efforts are being made to enhance the role for private investors in SOEs, which is an important step towards making the overall management of these enterprises increasingly commercially oriented. These efforts should be accompanied by staged divestments in sectors where there are no compelling reasons for continued State ownership and by further measures to professionalise SOEs' boards of directors.

Creating a well-functioning market economy requires interventions in other areas to enhance framework conditions. Key policy measures would include: (1) strengthening corporate governance and the enforcement of anti-bribery legislation; (2) easing access to finance, including through appropriately regulated non-bank channels, to support the growth of micro, small and medium-size enterprises (MSMEs); (3) regulating the shadow banking sector and formalising a system of deposit insurance to strengthen financial stability; (4) easing restrictions on employment protection legislation for regular, open-ended contracts while strengthening protection for temporary contracts; and (5) ramping up the use of Public Private Partnerships (PPPs) to deliver infrastructure projects to improve framework conditions in the regions.

Reforming the State to support a new growth model

With the market set to play an increasingly decisive role in China's economy in the coming years, the State will need to adapt its own institutions and functions accordingly, not least to underpin the implementation of market-oriented reforms that China needs to sustain inclusive growth and move up the global value chain. In particular, there is a need to modernise public administration, improve service delivery and strengthen the judicial system.

China is embarking on an ambitious programme of judicial reforms, but further efforts will be required. Securing property rights is particularly important to support private sector development. This requires effective courts, which could clarify the application of the law and uphold the legal protections. The quality of contract enforcement is another important element of a business-friendly environment, which can help reduce informality, improve access to credit and support a level playing field for market participants. Two priority areas for reform should be to address disparities at subnational level in, for instance, the cost of legal procedures and to reduce the excessive length of proceedings.

There is a need to enhance accountability, transparency and integrity in public institutions. The recent approval of amendments to the Budget Law by the NPC Standing Committee – including the permission of debt issuance by subnational governments, subject to NPC approval – is an important step towards improving budgetary transparency and efficiency. Such institutional reforms are important in their own right, but they are particularly necessary to achieve an appropriate balance of responsibilities between the State and the market in the effective, efficient and equitable provision of goods and services. In this context, one priority area for reform should be the development of a single, unified code of conduct for civil servants which would provide a framework for the professional expectations of civil servants, and regulations to address common issues such as conflicts of interest and the use of official information and resources.

Subnational Government's revenue raising powers need to be better aligned with their extensive spending mandates, and other sources of funding explored. Presently, subnational governments are responsible for the provision of the vast majority of public services while relying on receiving a share of revenues from taxes collected locally under a regime where sharing rates are set by higher level governments. To address these funding issues, China could broaden the municipal tax base, including through the introduction of a local tax on immovable property. There is also a need to fine-tune the mechanism for equalisation, or transfer payments from richer to poorer provinces, by ensuring it is done on the basis of actual, rather than registered, populations and in such a way that it reflects inter-regional cost differentials.

Key recommendations - Highlights

Changing Economic Policies for a Changing World

- Increase public funding for basic research. Support private sector investment in innovation, including through the development and effective enforcement of the IPR regime.
- To improve long-term productivity and ease resource constraints, China should further strengthen its agriculture innovation system, from research and development to farm extension services.
- Boost public spending on education and open up public schools to all children, and improve the vocational training system.
- Prioritise the easing of restrictions on foreign entry to services sectors and address sector-specific barriers to competition (e.g. in network industries).
- Continue capital account liberalisation, as required by China's increasing role in international capital markets, but paying attention to the need for careful sequencing.
- Improve labour mobility, including through reforms that give migrant workers access to public services in all cities, so that demands for wage increases are remain moderate.
- Adopt comprehensive reforms to the energy sector to improve energy security, diversify supply, move towards market-determined allocation of energy resources, and reduce carbon emissions.

Creating a Policy Framework for a Stronger and Better-functioning Market-based Economy

- Relax controls on prices, fees and advertising rights, particularly for professional service providers such as accountants, and lawyers. Encourage greater competition in network industries.
- Establish a dedicated institution to manage, assess and promote the quality of regulations and consider the introduction of automatic sunset clauses for new regulations.
- Establish and enforce standards that protect consumers, ensuring safety, quality (e.g. in retail and land transportation) and transparency (e.g. in financial services).
- Continue efforts to professionalise SOEs' boards of directors and establish clear specifications of the state's commercial and strategic goals of different types of SOEs.
- Complement efforts to regulate the banking sector with efforts in the shadow banking sector.
- Improve access to finance for SMEs, including through the development of capital markets.
- Reform the SOE sector by broadening the ownership base; implement measures to clarify corporate objectives; and professionalise the State ownership function and corporate boards.
- Improve labour market flexibility, including by reforming the *hukou* system and by relating employment protection to length of tenure, while protecting workers' rights.

Reforming the State to Sustain the Changing Growth Model

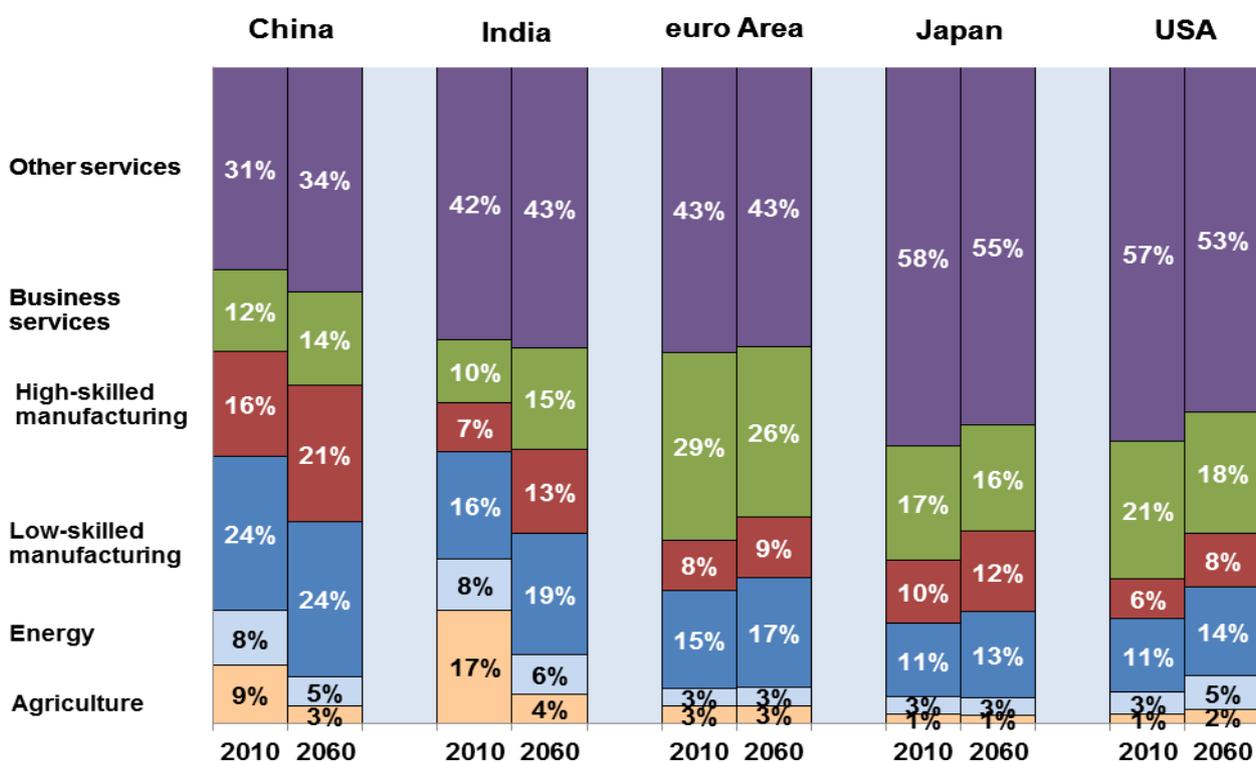
- Reinforce good governance and the rule of law in the country, including through strengthening judicial capacities, promoting technological facilities and court operation, increasing the transparency and efficiency of the judicial decision-making process, and improving court administration and governance practices.
- Promote a culture of integrity in the public sector through raising awareness and coherent application of up-to-date standards in codes of conduct, including managing conflicts of interest, using official information and resources.
- Better align subnational governments' revenue-raising capacities with their spending mandates.
- Improve uniformity of the implementation of best practices in the civil service across all regions.

Chapter 1. The domestic backdrop to global change

China has experienced rapid growth over the past three and a half decades, achieving middle-income status and lifting hundreds of millions of its citizens out of poverty. This remarkable growth performance was accompanied by fundamental structural changes in the economy. The share of agriculture fell from roughly a third of value added at the outset of reforms under Deng Xiaoping in 1978 to less than 10% in recent years (Figure 1.1). The share of manufacturing remained more or less stable at around a third of value added, but its productivity increased greatly owing to introducing incentives for efficiency gains in the state-owned and collective sectors and to increasing recognition of the role of private business. Another “big push” stemmed from China’s accession to the WTO in 2001 and the increasing integration into the global economy. Manufacturing industries diversified into an ever widening range of products and China became the ‘factory of the world’. The service sector exhibited the most remarkable growth: its share doubled since the outset of reforms, reaching 46% of value added in 2013. OECD economies have undergone similar structural economic transitions, and these recent trends can be expected to continue over the coming years in China, as in other large emerging economies. At the same time, China is already far ahead of countries like India and Indonesia, as well as leading OECD countries, in terms of the economic share of high-skilled manufacturing, while the intensity of this sector is expected to continue growing (Figure 1.1).

Figure 1.1 China’s economic transformation more advanced than other large emerging-market economies

Value-added shares of production of different sectors in selected economies, 2010 and 2060



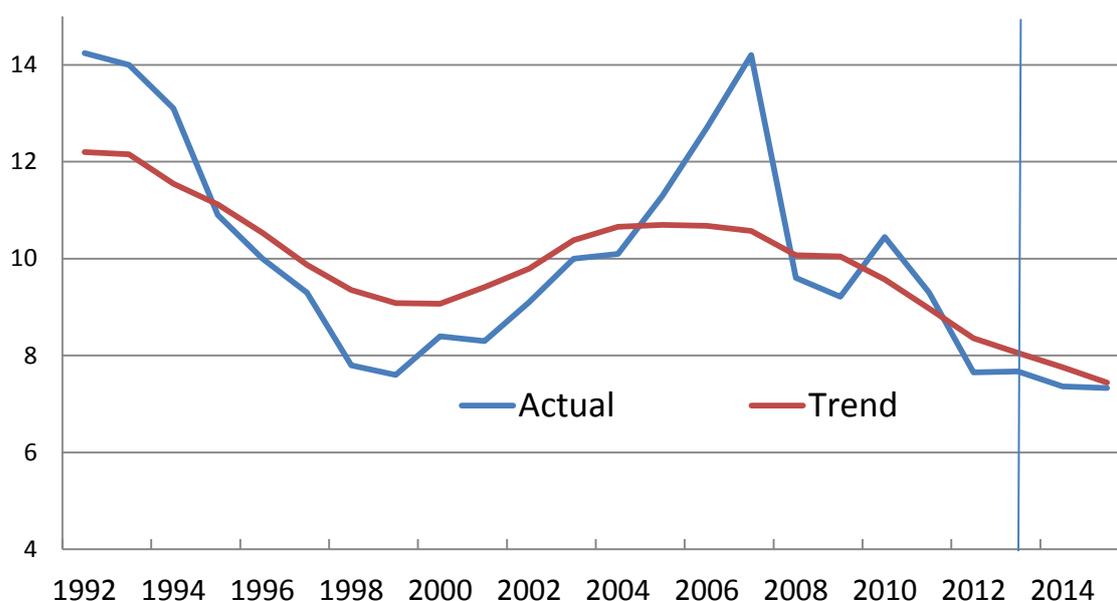
Note: Agriculture includes rice and crops, other agriculture and other mining. Energy includes coal, crude oil, electricity, gas and refined oil. Low-skilled (low-technology) manufacturing includes food, textile, paper and wood, other manufacturing, metal products, other metals and other mining. High-skill (high-technology) manufacturing includes chemicals, iron and steel, transport equipment and electronics. Other services include transport service, wholesale and retail, public administration and other services.

Source: OECD, CEPII.

Despite this impressive progress, China still needs to narrow the productivity gap with the advanced economies: labour productivity in both manufacturing and services are below 10% of the US level. Measures to incentivise commercially viable innovation and to provide the skills needed in a rapidly transforming economy alongside service sector liberalisation and the reduction in the weight of state-owned firms in commercially oriented industries would work to that end. Although the agriculture sector is a much smaller share of the economy than in the past, there is still scope to improve productivity while easing resource constraints, by strengthening the agriculture innovation system.

Faced with a moderation in the trend growth rate during the 1990s, China introduced a new and wide-ranging round of economic reforms and, since 1998, GDP growth has averaged just under 10% per year. Even in the face of the global financial crisis, growth has held up relatively well. Due at least in part to this cyclical challenge, however, GDP growth has slowed over the past five years, falling to 7.4% in 2014 (Figure 1.2). The Chinese government accepts that slower rates of growth are the “new normal”¹. Furthermore, OECD projections² suggest that such a lower underlying growth rate is likely to persist over the 2016-20 period and beyond due to a range of structural factors, including notably population ageing.

Figure 1.2 China’s actual and trend GDP growth, in % per year
(Historical data until 2013; forecasts for 2014 and 2015)



Note: The trend is an estimate of potential output from a Cobb-Douglas production function with constant returns to scale featuring physical capital, human capital and labour as production factors plus labour-augmenting technological progress.

Source: OECD Economic Outlook 96 database and National Bureau of Statistics.

¹ E.g. Third Plenum of the 18th Party Congress in November 2013

² OECD Economic Outlook 96 database and National Bureau of Statistics.

Given the more limited scope to sustain growth through further increases in investment and export intensity going forward, China is in the process of rebalancing its economy towards greater reliance on household consumption. This transition was underpinned by the 12th Five-Year Plan (FYP). Having surged from 37% of GDP in 2000 to 53% in 2008, China's saving rate edged down to 50% in 2013. As the importance of consumption as a driver of growth increases relative to investment a combination of factors – including dissaving by an ageing population, slowing overall economic and export growth, and the strengthening by government of social programmes to provide a safety net – will push the saving rate down further. This trend implies, in turn, that factor accumulation-based growth will need to be replaced by increasing reliance on multifactor productivity gains as the key growth driver. Given the still-sizeable differential in living standards between China and the more prosperous OECD countries, there remains ample scope for catch-up in relative income levels. This calls for a range of structural reforms to overcome boost productivity to underpin sustained, inclusive growth and avoid the so-called 'middle-income trap'³.

A shrinking workforce will underline the need to boost productivity to sustain inclusive growth...

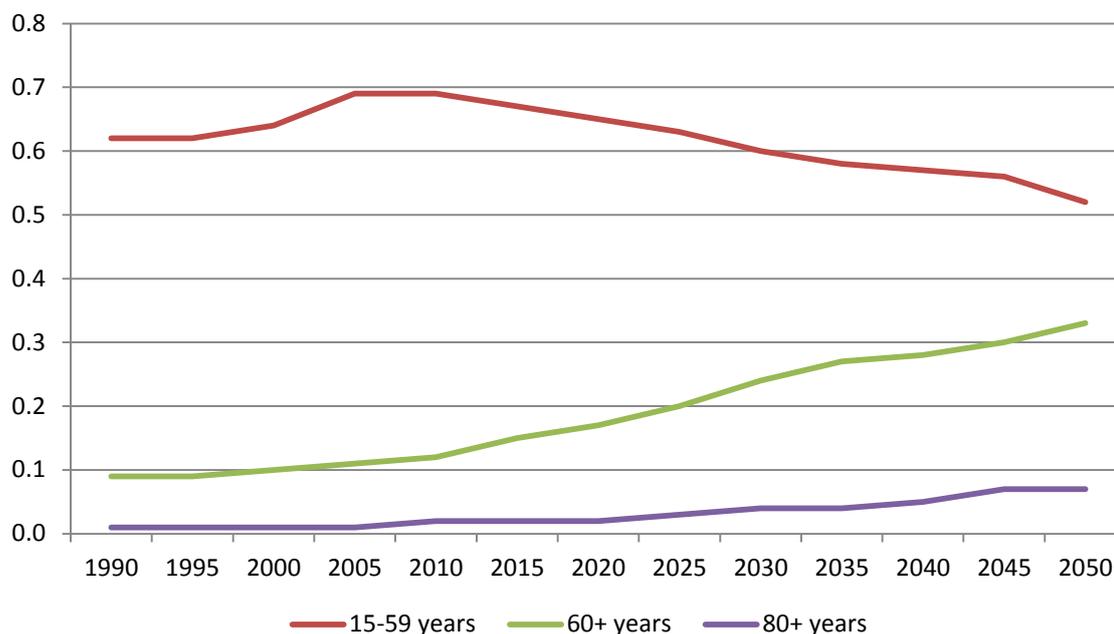
As in many other countries, China's population is rapidly ageing. The number of people 60 years of age and older is to rise from 169 million in 2010 to 242 million in 2020, or from 12% to 17% of the total population (Figure 1.3). It is expected to reach 454 million, or a third of the population and approximately the same as the OECD average (32%), by 2050. The share of those 80 years and older is to increase, from 1.5% in 2010 to 2% (OECD average will be 5%) in 2020 and 7% (10%) by 2050. Along with ageing, low fertility rates will push up the dependency ratio and, as labour markets tighten, slow growth (OECD, 2015). Improvements to labour market flexibility – including enhancing mobility through reform of the *hukou* system (see section 3.2 of the companion report *All on Board: Making Inclusive Growth Happen in China*) – will help limit the ensuing labour shortages. So will raising China's very low retirement age.⁴

However, policies to improve labour utilisation will not fully offset the overarching demographic impact on economic growth. Policies will also be needed, therefore, to boost productivity by fostering continued technological development and ensuring the workforce has the complementary skills necessary to thrive in a knowledge-driven economy. Moreover, the demographic transition will also present growth opportunities, particularly through higher demand for health and other personal services.

³ Koen *et al.*, 2013

⁴ Herd *et al.*, 2010

Figure 1.3 The relative share of China’s working age population share is declining
(Historical and medium variant forecast Chinese population by age category as population share; 1990-2050)



Source: United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2012 Revision, New York, 2013.

... and will give rise to emerging fiscal pressures

Fiscal pressures arising from China’s ageing society will also increasingly require attention. Fiscal consolidation will be required in many economies over the medium term to manage the increases in public debt that came with the responses to the global financial crisis, though this is less of a pressing issue for China, where general government debt remains under 50% of GDP in mid-2013 – far below the OECD average, but very high by the standards of high-growth emerging-market economies. However, China’s changing demographics will entail fiscal challenges over the longer term, in the form of higher health and pension spending as the declining population of working age exerts a drag on government revenue. Over the longer run, some under-exploited tax bases, such as property tax and environmental taxes, could be increased to meet spending needs. Fiscal challenges pose particular risks for local governments, which could be addressed through further improvements to institutional arrangements which would allow them to better match revenues with spending commitments (see section 4.4).

Moving up the value chain is key to a sustainable, inclusive Chinese growth model

As emerging-market economies continue to outperform those of the OECD over the longer term, living standards will continue converging, even as global growth slows overall. This shift in the global economic balance towards emerging-market economies, and towards Asia in particular, is expected to be accompanied by even deeper economic integration and the emergence of innovation as the key growth driver. With many emerging-market economies competing with China to attract investment in higher value-added activities and integrate into emerging and existing global value chains (GVCs), China will need to move up the value chain. China’s economic prospects hinge on how it responds to these domestic and global trends.

Chapter 2 provides an analysis of global trends in growth, finance, investment, trade, innovation and energy. It sets out policy recommendations to help China position itself to maximise its competitive edge in an increasingly integrated, knowledge-driven world. In line with the Chinese government's efforts to rebalance the economy towards domestic consumption, its view that the market should have a decisive role in the economy, and the need to secure China's competitive position by moving up the value chain, **Chapter 3** identifies the most pressing policy priorities to make a better-functioning market-based economy a reality. It focuses on striking the right balance between market and government, and on improving the function of market forces in both product and, particularly, factor markets. It also sets out recommendations for improving the framework conditions necessary to underpin a thriving private sector. **Chapter 4** considers the appropriate alignment of the state apparatus, and its institutional capacity, with implementation of the necessary structural reform agenda as well as the broader shift to a more market-based economy.

The drivers of broader economic transformation in China and its changing growth model will also pose challenges and opportunities for inclusiveness. For example, skill-biased technological change tends to increase inequalities between low- and high-skilled labour, with incomes dependent on workers' abilities to complement increased technology use. On the other hand, investment in education and health, and broadening access to the social protection system, could ensure more inclusive growth, by enhancing the productivity of workers and their participation in the labour force, while at the same time laying the groundwork for a more even distribution of the benefits of increased prosperity. Inclusiveness and social sustainability should therefore be at the centre of China's new growth strategy, as argued in the companion report *All on Board: Making Inclusive Growth Happen in China*.

Chapter 2. Chinese Economic Policies for a Changing World

China's extraordinarily successful investment and low-cost export-oriented development has seen it come to rank among the leading economic powers in terms of its weight in the global economy. Indeed, it has been one of the key drivers of global growth in the first decade and a half of the 21st century, particularly since the onset of the global financial crisis in 2008. With varying degrees of success, many low-income countries are trying to emulate the East Asian growth model, increasingly competing with China as hubs for low-cost manufacturing, for example. As the global economy has evolved, and as China itself has become more developed, a need has emerged for a new growth model that relies on increasingly sophisticated exports as well as on domestic consumption. This chapter explores some of the key changes underway in the global economy, what these mean for China, and how China can position itself to maximise its competitive advantage.

2.1 Slower Growth, Continued Convergence

Though global growth will slow overall, emerging-market economies will continue to converge with advanced countries

Global economic growth is expected to moderately improve over the period to 2016, as slack remaining from the global financial crisis is eroded. While growth appears to have levelled out in many emerging economies, growth in a number of developed countries will be supported by a combination of still-accommodative monetary policy, slow improvements in labour market outcomes and the reduced drag from fiscal consolidation.

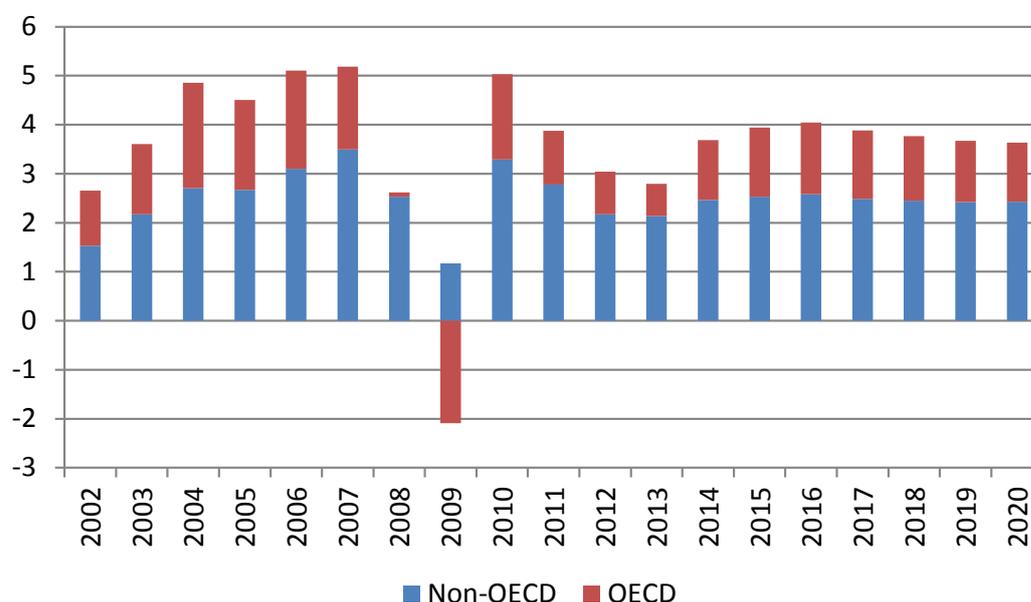
Over the longer term, growth will be held back by labour shortages arising from declining population shares of working age in most emerging-market and advanced economies alike. As in China, technological development, and the emergence of the knowledge-based economy will therefore remain the most important drivers of global growth over the medium to long term. An anticipated slowdown in the rate of growth in both R&D intensity and educational attainment may also lead to slower multifactor productivity growth than in the recent past (from 1.1% per annum on average in OECD countries in the 2020s to 0.9% in the 2040s), suggesting there will be a need to step up investments worldwide in R&D and human capital.

As well as being exposed to similarly adverse demographic and technological trends as advanced economies (and notwithstanding the, in many cases, large technological gaps remaining vis-à-vis advanced economies), emerging-market economies also face diminished scope for catch-up growth as they approach the technology frontier. On the other hand, emerging-market economies still stand to benefit from accessing global knowledge and developing more innovative industries, helping to support their relatively stronger growth rates (Figure 2.1).

Over the longer term, the global economy will as a result see a major shift of the economic balance towards emerging-market economies, particularly those in Asia, with the share of non-OECD countries in world GDP rising from 45% in 2012 to more than two-thirds by 2060. By 2030, China alone will see its economy account for more than a quarter of the global economy. By 2060, the combined size of the Chinese and Indian economy is likely to be larger than the OECD's, having been only one third the size in 2010.

Figure 2.1 Emerging-market economies will continue to make important contributions to global growth

Historical and forecast annual average contributions to global growth, 2002-2020, in per cent per year



Source: Johansson, A. and E. Olaberria (2014), "Long-term Patterns of Trade and Specialisation", OECD Economics Department Working Paper 1139.

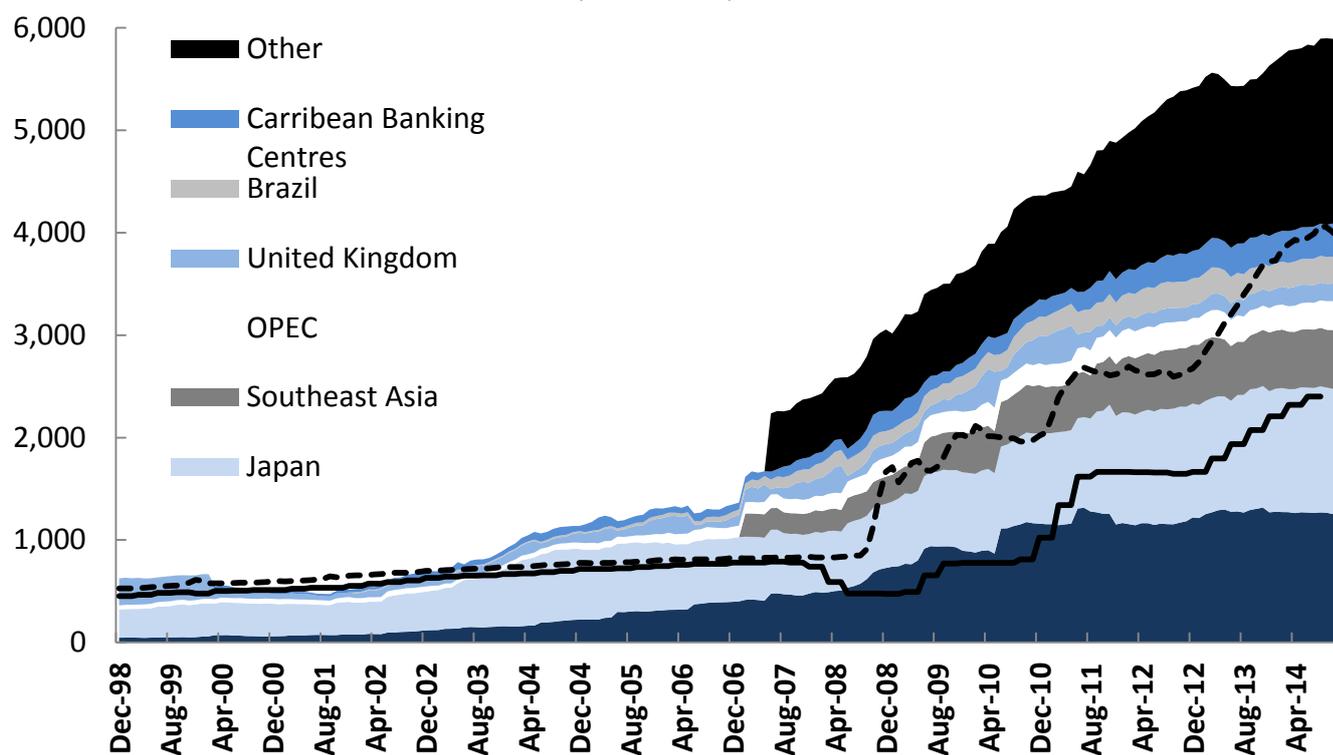
2.2 Responding to shifting patterns in global financial markets

Global financial market trends pose risks and opportunities for China

With some USD 4 trillion in foreign exchange reserves, China has taken over Japan's role as the world's largest creditor country. As such, China is now the largest holder of US treasuries (Figure 2.2). This leaves the country directly exposed to exchange rate risk, associated in particular with the Fed's exit from ultra-loose monetary policies, while there is potential for further indirect impact through the trade channel. OECD simulations suggest that a large and protracted government bond yield shock in the US would not by itself imply large negative trade spillovers for the rest of the world. However, were such an event to be accompanied by crisis events in the United States or elsewhere, knock-on increases in bond yields in other countries, coupled with potentially large decline in equity prices, would have a sizeable impact on the OECD and largest emerging-market economies⁵, potentially undermining demand for Chinese exports. Moreover, emerging market economies' generally less liquid financial markets and, in some cases, weak fundamentals related to their banking systems and external financing, make them particularly vulnerable to such spillovers.

⁵ Rawdanowicz et al., 2014

Figure 2.2 Foreign central bank holdings of US treasuries and US Fed balance sheet
(USD billions)



Source: US Treasury and US Federal Reserve data from Thomson Reuters Datastream.

While China has weathered the effects of the financial crisis well, its increasing integration into the world economy and global financial markets will make it less immune to international financial shocks in the future. What is more, recent economic growth has been accompanied by a large build-up in debt – to over 250% of GDP, a very high level not only for an emerging-market economy – which creates vulnerabilities to shocks. While this debt is still mainly held domestically, and thus shielded to a certain degree from the vagaries of international financial markets, it creates instability and risks. If these materialise, they could have negative repercussions at home and abroad, given China’s increasing weight as a global economic player.

Liberalising capital flows and moving to a market determined exchange rate will improve resource allocation

As the weight of emerging-market economies - and China in particular - in the world economy rises, and as global financial integration deepens, it is becoming increasingly important to deal with distortions affecting international capital flows and the persistent boom-bust cycles associated with them. Reforms, such as the establishment of the offshore market for the *renminbi* (RMB) and the more recent expansion of the number of countries with RMB offshore clearing banks, are important steps towards reducing such distortions.

While the exchange rate is still determined by central bank intervention, China moved further towards a more flexible exchange rate regime in March 2014 when the People’s Bank of China announced a widening of RMB fluctuation band against the dollar. This will help to strengthen the role of the exchange rate as a key determinant in the allocation of resources and should help prepare investors for a gradual transition to a flexible exchange rate regime.

China, like many other emerging-market economies, relies on quantitative instruments, such as loan quotas, to control interest rates. As a result, short-term interest rates are far more volatile than in developed markets, thereby reducing their information content as a signalling device for the transmission of monetary policy. Moving to market-determined interest rates should help allocate capital more efficiently but involves some challenges. For example, when poorly designed and sequenced, financial deregulation in OECD countries has often produced surges in credit that have ultimately proved to be unsustainable. Besides, as lending quotas have existed for many years, deregulation is likely to push up the equilibrium interest rate. While this would benefit savers, it might also put upward pressure on the exchange rate, once, as planned, intervention in foreign exchange rate markets has been curtailed. Careful sequencing of capital account liberalisation would minimise such risks. In particular, international experience suggests that the liberalisation of outflows of portfolio investment might be called for early on in the process.

Continued development of local currency markets is important to support further global integration

One of the building blocks for China's sustained integration into world financial markets will be the development of local currency money and debt markets that would broaden and deepen the investment opportunities of international investors in Chinese markets. At the same time, it would help provide more stable access to capital, facilitate the diversification of monetary policy instruments and the creation of a yield curve for pricing financial assets, and contribute to reducing exchange rate and refinancing risk from financing through foreign currency debt. Further development of onshore capital markets must be complemented by policy reforms geared towards diversifying the financial structure while improving regulation and supervision, especially in the non-bank financial sector.

While the *renminbi's* share in the USD 5.3 trillion a day foreign exchange market, is still relatively low, it has been increasing, raising the rank of the Chinese currency among traded currencies from the 35th position in 2001 to 9th in 2013.⁶ The increasingly global role of the *renminbi* would also be reflected – provided that China proceeds with gradual opening of its financial account and introducing more flexibility into its exchange-rate regime – in its entry into the IMF's Special Drawing Rights (SDR) basket at the next review in 2015.

2.3 Responding to shifting patterns in global investment China has become an increasingly attractive destination for FDI...

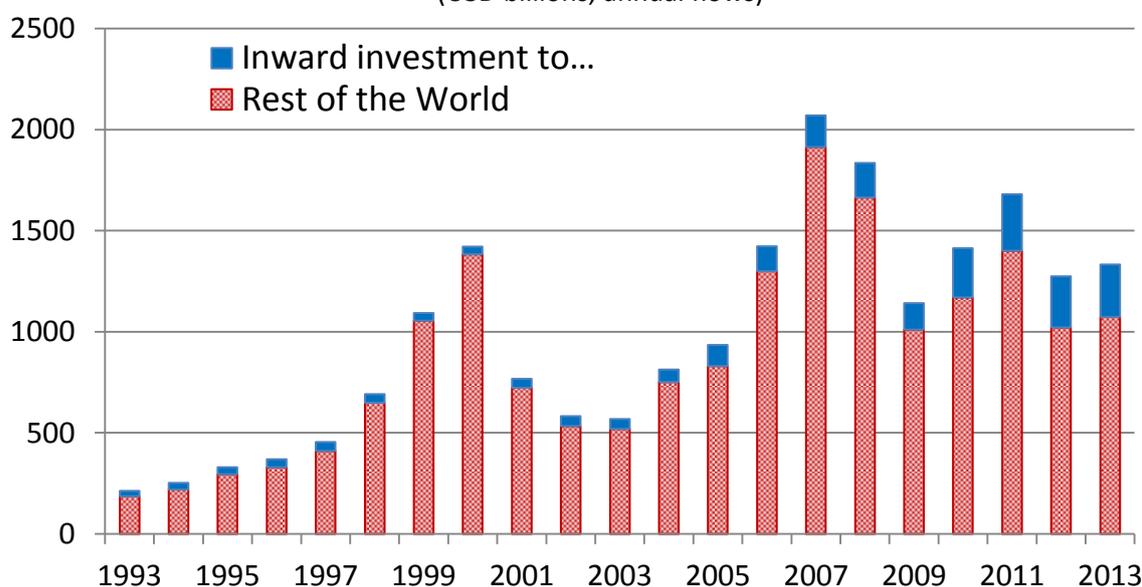
The growing weight of emerging-market economies in the global economy, coupled with increased global economic integration more generally, has seen a concomitant rise in their importance as destinations for, and increasingly as sources of, foreign direct investment (FDI). Increased FDI flows to and from emerging-market economies have facilitated the accumulation of capital to underpin economic development as well as creating opportunities for both the transfer of advanced economies' knowledge and know-how and for emerging-market economies to profit from greater participation in global trade.

⁶ Bank for International Settlements (BIS), Triennial Central Bank Survey of foreign exchange and derivatives market activity in 2013, updated 8 December 2013; available at <http://www.bis.org/publ/rpfx13.htm>.

Over the past two decades, China has become one of the world's top destinations for global investment and the largest recipient of FDI outside the OECD (Figure 2.3), despite having very stringent restrictions on foreign equity ownership (Figure 2.4). Direct investment flows into China continued to increase until 2008. They fell by 24% in 2009, but less than investment to the rest of the world (which contracted by 39%). FDI flows subsequently more than doubled to an all-time high of USD 280 billion in 2011, and remained over USD 250 billion in 2012 and 2013, even as global investment did not recover to its pre-crisis levels. China has been the world's largest recipient of inward investment since 2010. The total stock of inward FDI in China stood at USD 2.35 trillion⁷ at end-2013, up 13.5% on 2012.

Foreign capital therefore continues to play a large and positive role in promoting China's trade, investment, innovation, and tax revenue generation, albeit with a decrease in recent years.⁸ A number of structural changes are also occurring within China, including a slight revival of equity joint ventures, faster growth in services-sector FDI than in manufacturing, and a reorientation of FDI from the Eastern Region to the Central and Western Regions.

Figure 2.3 Inward FDI into China has held up better than elsewhere in recent years
(USD billions; annual flows)

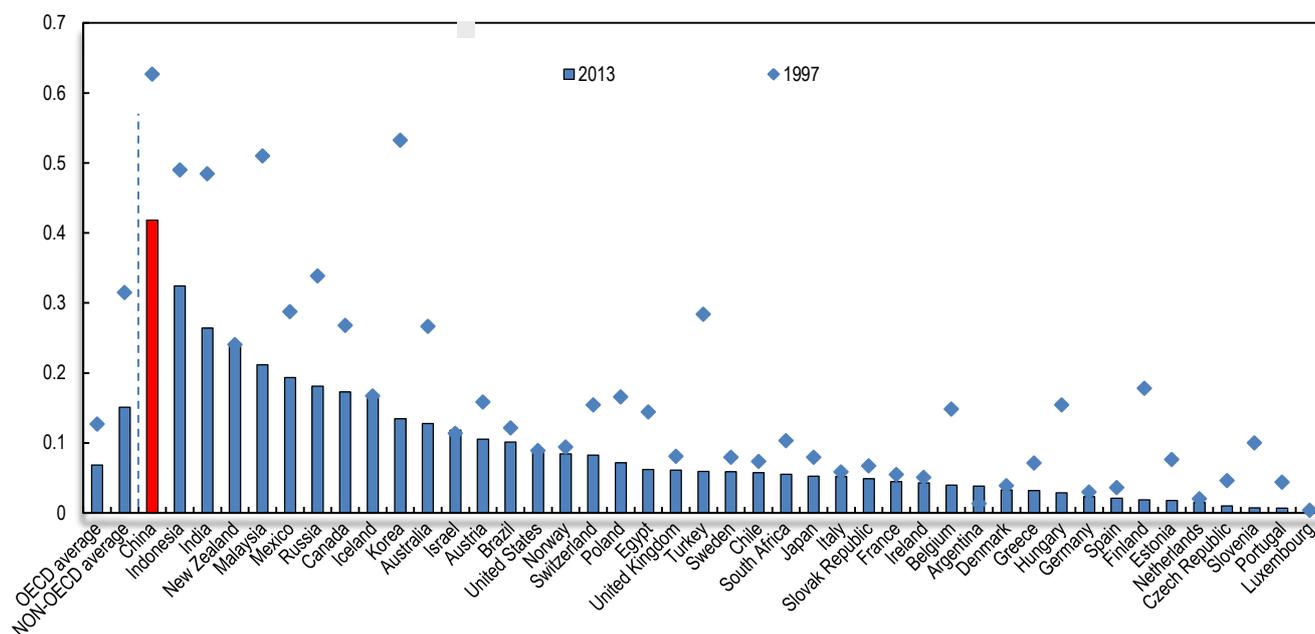


Source: OECD International Direct Investment statistics database.

⁷ State Administration of Foreign Exchange.

⁸ Davies, K. 2013.

Figure 2.4 Despite progress since 1997, FDI is still heavily restricted
 OECD FDI Regulatory Restrictiveness Index (open=0; closed=1)



Note: The PMR sub-indicator on foreign entry is mostly based on the OECD FDI restrictiveness index, which is taken from Kalinova, B., Palerm, A. and S. Thomsen (2010), "OECD's FDI Restrictiveness Index: 2010 Update", OECD Working Papers on International Investment, no. 2010/3. The values of the indicator range between 0 and 6, with higher values indicating more stringent regulation. The reported indicators for Brazil, China, India, Mexico, Poland, the Russian Federation and Turkey are based on preliminary estimates as some of the underlying data has not been validated with national authorities. Subsequent data revision may lead to revisions to the indicators for these countries.

Source: OECD (2013) FDI Regulatory Restrictiveness Index.

The changes in China's interconnectedness coincide with increasing involvement of Chinese firms in mergers and acquisitions (M&A) activity, both as targets and acquirers. Increased M&A activity by Chinese companies' accounts for a large share of the growth in cross-border merger deals worldwide. As the focus of merger law more generally shifts away from traditional jurisdictions towards a focus on competition law cross-border co-operation, national competition decisions will increasingly have implications for trading partners. Together, these trends will have long-term consequences for China's role and place in GVCs.

... but reforms will be necessary to preserve this attractiveness.

While foreign investor confidence is maintained by China's economic strength, foreign investors, including well-established companies that have operated in China for decades, express fears that an investment protectionist trend may be emerging, as evidenced by, for example, perceived discrimination against foreign-owned companies in government procurement and in the setting of standards.⁹ Also, foreign investors' understanding of, and compliance with, laws and regulations is

⁹ See AmCham China (2014), *American Business in China White Paper*; European Chamber in China (2013), *Position Paper 2013-2014*; and Japanese Chamber of Commerce and Industry in China (2012). Based on

hindered by lack of clarity and transparency, inconsistent interpretation and irregular enforcement. Moreover, foreign companies are seldom given sufficient time and opportunity to comment on proposed new rules.

To address these issues, specific targets and measures have been announced since the launch of the 12th Five-year Plan in 2011 to streamline and decentralise FDI administration and strengthen enforcement. The emphasis has been on aligning inward FDI flows more closely with national priorities, including upgrading industrial sophistication, increasing the importance of services, supporting innovation, and developing land-locked regions. All these features are crucial to avoid the middle-income trap. The most important change is the three-fold raising of the ceiling on provincial examination and approval authority over foreign investment projects in the “permitted catalogue”. Merger notification discrimination against foreign investors has been removed and a national security review process for cross-border M&As has been implemented.¹⁰ The State Council has also unveiled an updated “Catalogue of Investment Projects Authorized by the Government (2013)”, raising the approval threshold for FDI to “sensitive” areas and industries, while projects in less sensitive areas need only go through a filing procedure (instead of administrative approval by the State Council, MOFCOM and local government). Moreover, following the implementation of a “negative list” for FDI in the Shanghai FTZ and the government’s stated intention in the 3rd Plenum to move toward taking such an approach on a national level, the US and China were expected to commence negative list negotiations in early 2015.

Going forward, as the business environment improves and as more sectors are opened up to foreign investment - particularly in services (see section 2.4) and in the Shanghai free trade zone, for example -, there is significant scope for further inward FDI by firms seeking to sell goods and services directly into the Chinese market, as opposed to those seeking to derive efficiencies through the relocation of elements of the supply chain. China also undertook an OECD Investment Policy Review based on the *Policy Framework Investment (PFI) in 2008*, with a focus on Responsible Business Conduct.¹¹

Attracting private investment into infrastructure is essential in the face of rapid urbanisation and growing local government debt

China’s continued urbanisation remains a powerful driver of growth and social change, but also presents significant challenges, including pressures on land use, the environment and the urban infrastructure. Indeed, China’s Ministry of Finance estimates that the country will require about USD 6.75 trillion of investment in infrastructure construction over the next seven years, driven by this rapid urbanisation. Investment in China’s urban infrastructure has been intensive, but still has not kept up with urbanisation rates in some areas and has been put under considerable strain in many

the OECD’s FDI Regulatory Restrictiveness Index, which measures statutory restrictions on FDI in 58 countries, including all OECD and G20 countries, and covers 22 sectors, China maintains the most restrictive stance in 2013.

¹⁰ See Circular of the General Office of the State Council on Establishment of a Security Review System Regarding Mergers and Acquisitions of Domestic Enterprises by Foreign Investors and Rules of the Ministry of Commerce on Implementation of Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors. The list of “sensitive” sectors is very broadly worded and non-exhaustive and authorities do not publish details on transactions reviewed by the Security Review Committee.

¹¹ *OECD Investment Policy Reviews: China (2008)*, Organisation for Economic Co-operation and Development, Paris.

cities.¹² Congestion and air pollution raise the importance of metro and light rail developments in urban agglomerations, where private investment can have a particularly strong value-added. China is also investing heavily in rural reconstruction, particularly in housing, transport and energy. It has also rapidly extended its road, rail, port and grid infrastructure, while the 12th Five-Year Plan (2011-2015) targeted the linking of at least 90% of cities with populations of over 200,000 by trunk highways by end 2015.¹³ Going forward, there is scope to attract private invest for such infrastructure initiatives in order to both diversify financing and strengthen the commercial viability of projects as well as increase economic efficiency.

Public-private partnerships (PPPs) have been identified as a way ahead for infrastructure expansion. PPPs are not new to China, but the model has only gained prominence recently.¹⁴ The urgency placed on urban development and China's current efforts to grapple with local government debt (standing at USD 3 trillion in 2014) are pushing PPPs up the policy agenda. An increasing number of infrastructure projects in China are thus opening up to private participation, and the largest of these projects, as of 2014, span a variety of key infrastructure sub-sectors.¹⁵ As of December 2014 efforts are underway to establish a China PPP Centre under the Ministry of Finance, and China's National Development and Reform Commission (NDRC) issued *Guiding Opinions on Carrying Out PPPs*, indicating a preference for the use of PPP in future urban pilot projects.¹⁶ China is also actively involved in collaboration on infrastructure PPPs among the 21 APEC member states. Important legal and institutional reforms will nonetheless remain necessary in order for PPPs to reach their potential in key infrastructure sectors, in urban and rural settings alike.

China is also an increasingly important source of outward FDI

China has also become an important source of outward FDI, a trend that was reinforced by the global financial and economic crisis. From less than USD 0.1 billion in 2003, China's outward investment flows reached USD 73.2 billion in 2013, making it the third largest source of direct investment. Even as world investment flows fell in 2012 and remained flat in 2013, China's outward investment continued to increase. The total stock of China's outward FDI stood at USD 609 billion at end-2013, up 21% on 2012.¹⁷

The National Development and Reform Commission unveiled a sub-plan for outward FDI as a complement to the 12th Five Year Plan, highlighting four areas: 1) infrastructure construction in neighbouring regions; 2) offshore manufacturing bases and co-operation in energy, natural resource, agriculture and infrastructure construction in Africa and Latin America; 3) technology-intensive markets to enhance R&D capabilities, build global brands, and explore overseas business networks; and 4) co-operation with local companies in Hong Kong, China; Macao, China; and Chinese Taipei. For

¹² OECD *Going for Growth 2015*

¹³ KPMG (2014). "Infrastructure 100: World Markets Report". Available at: <http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/infra100-world-markets/Documents/infrastructure-100-world-markets-report-v3.pdf>

¹⁴ Ning, Yu (2014). "PPP model and its impact on APEC". November 2014, Available at: http://www.china.org.cn/opinion/2014-11/11/content_33988017.htm

¹⁵ These projects include: the "South-to-North Water Transfer" Project; the "UHV Power Transmission" project; the "Turn the Pearl River Delta into One" project; the "Jiuquan Wind Power Base" project; and the "Yangshan Deep Water Port" project (KPMG, 2014).

¹⁶ Buchanan, Kelly (2015). "China: Guidelines on Public-Private Partnerships Issued". Global Legal Monitor, available at: http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205404246_text

¹⁷ State Administration of Foreign Exchange.

Chinese companies, becoming more international is an opportunity to grow and also to build new skills and new aspects of their business. Indeed, there have been an increasing number of instances of technology-seeking outward FDI from China in recent years, a pattern likely to intensify and necessitate upgrading the industrial structure. Chinese investment will also contribute to the development of host economies, especially in developing countries that share some basic features with China and have investment needs that the country is well-suited to match.

The experience of OECD Members – which have been the largest sources of outward investment in the global economy and the main recipients – underscores the importance of maintaining relatively open economies. Companies prosper and create jobs when regulatory frameworks, including competition and corporate governance policies, are stable and predictable, and the rule of law has a strong foundation, with reliable and impartial courts to adjudicate disputes. With respect to investment and trade, the general rule has been openness, with non-discrimination between domestic and foreign investment and restrictions expressed in a negative list approach that also contributes to clarity and predictability. These elements are core to the OECD *Policy Framework for Investment (PFI)*, and as China is increasingly becoming active in foreign markets, its investors are beneficiaries of investment-related reforms in host markets. The OECD has undertaken multiple *PFI*-based Investment Policy Reviews in Africa and Asia¹⁸ that have contributed to the identification of specific investment policy reforms in these markets to improve the legal and regulatory regimes for investors, both domestic and foreign.¹⁹

As it becomes a more important source of FDI, China is also becoming more interested in promoting responsible business conduct (RBC), particularly in respect of Chinese investments abroad, as a way for Chinese companies to manage their environmental and social risks and for maintaining social support to continue operations. A number of guidelines have been issued in recent years, both for investors in China and for Chinese companies operating abroad, to clarify the expectations, requirements and recommendations around RBC. Notable examples are the State-owned Assets Supervision and Administration Commission (SASAC) Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities; Ministry of Commerce and the Ministry of Environmental Protection joint guidelines for environmental protection in foreign investment; and the Shenzhen Stock Exchange and the Shanghai Stock Exchange social responsibility and environmental guidelines and disclosure requirements for listed companies.

Going forward, it will be important to align policies on RBC and to ensure their uptake by companies in practice. The OECD and the China Chamber of Commerce of Metals Minerals & Chemicals Importers & Exporters (CCCIMC) signed a Memorandum of Understanding in 2014 setting out concrete co-operation activities to promote the implementation of RBC by Chinese companies in global mineral supply chains. The Ministry of Commerce has also designated the Chinese Academy of International Trade and Economic Cooperation (CAITEC) to pursue engagement with the OECD on broader RBC issues, including an exchange of experiences on access to remedy.

¹⁸ The full list of countries reviewed can be found here:
<http://www.oecd.org/investment/countryreviews.htm>.

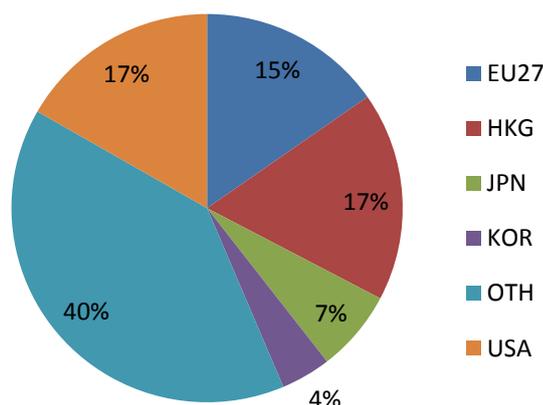
¹⁹ The Policy Framework for Investment (PFI) was developed in 2006 and updated in 2014-2015. China hosted the meetings of Investment Experts Group of APEC in 2014, which discussed the update of the PFI.

2.4 Responding to shifting patterns in trade

Following its accession to the WTO in 2001, China's rapid economic growth has been underpinned by strong investment and trade growth, including increased integration into regional and global value chains (GVCs). Going forward, the evolution of these value chains will continue to impact on the nature of direct investment flows as well as trade patterns. As labour costs increase in China and some other emerging-market economies, labour-intensive segments of the production process, whether owned by Chinese or foreign capital, can be expected to shift towards regions and countries where labour costs are relatively lower.

Trade between emerging-market economies is expected to increase as their weight in the global economy becomes ever larger, allowing Chinese exporters to diversify beyond the advanced economies and neighbouring countries (Figure 2.5), which currently account for the bulk of its exports. Deeper regional integration among Asian economies is a potentially significant driver of Chinese growth going forward, particularly if administrative and behind-the-border trade costs can be reduced across the region so as to unleash its full potential (Box 2.1).

Figure 2.5 Exports to the advanced economies currently account for much of Chinese trade
Chinese merchandise exports by destination, 2013

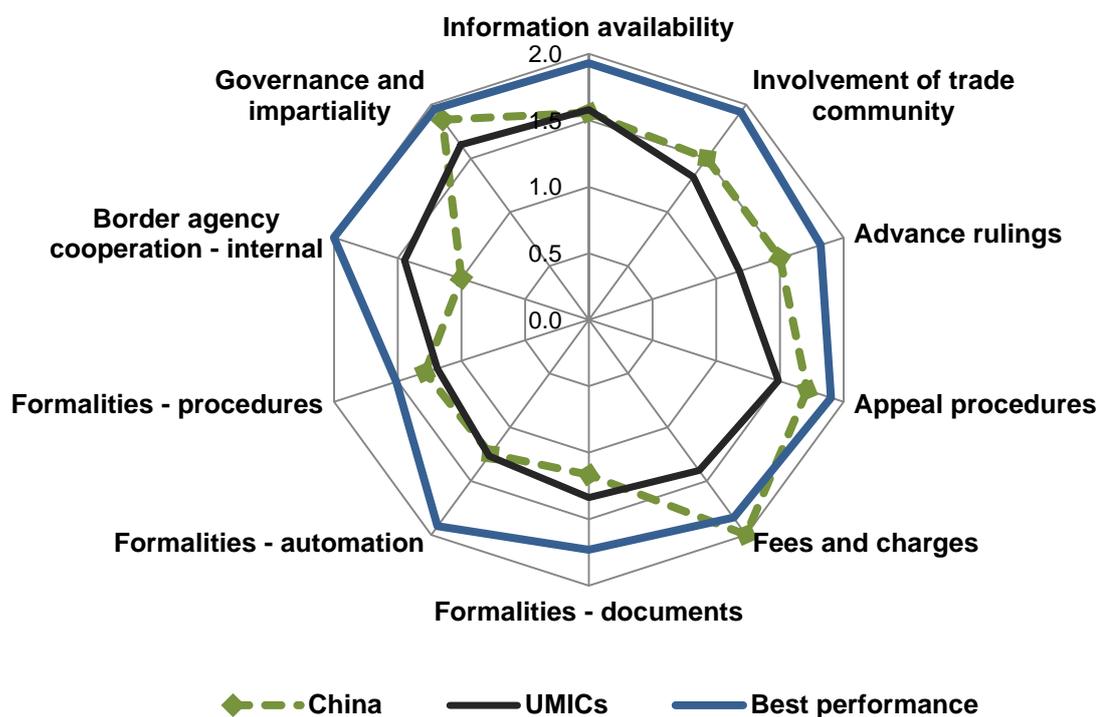


Source: Comtrade

Box 2.1 Trade facilitation measures can help China maximise benefits from participation in GVCs

OECD analysis shows that upper middle-income countries like China could reduce costs by as much as 13% by fully implementing the measures agreed to in the WTO Trade Facilitation Agreement. In particular, reforms and improvements in the following areas would have the greatest impact on lowering trade costs in China, and consequently increasing trade flows: information availability, simplification and harmonisation of documents, automation, and streamlining of procedures. To this end, the recent announcement of the cancellation of more than 200 administrative procedures is a welcome step in the right direction. Improvements to mechanisms for advance rulings and involvement of the trade community could also boost trade flows and manufacturing trade in particular (Figure 2.6).

Figure 2.6 China's trade facilitation performance: OECD indicators
 Latest available data, where 2 = best performance



Source: OECD Trade Facilitation Indicator database

UMICs: Upper middle income countries (World Bank classification)

For China insufficient reliable information is available at this stage for the 'Border agency cooperation – external' indicator.

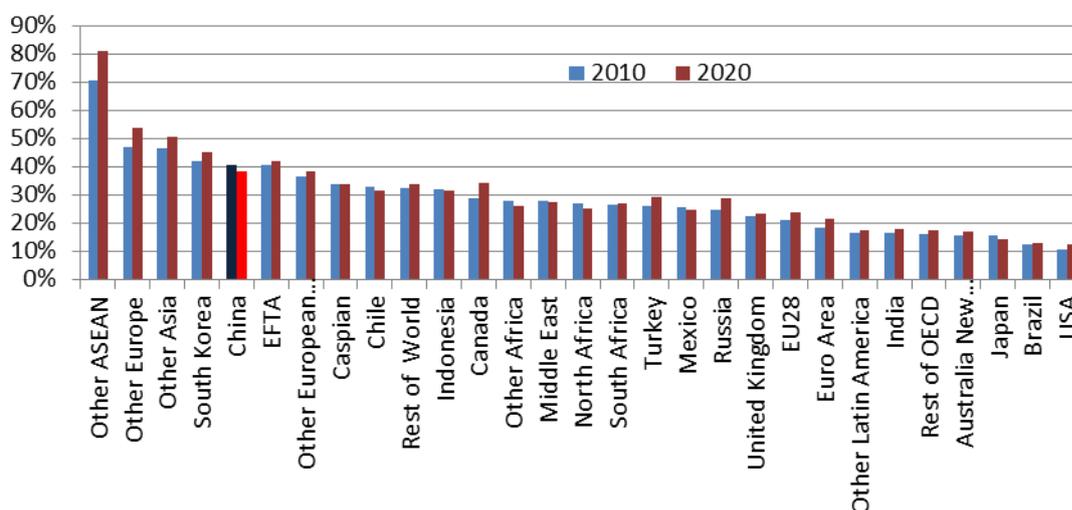
"Best performance" denotes the average of the top quartile for each of the trade facilitation areas covered, across all countries within the database.

Analysis is based on latest available TFI data as of January 2013 and the set of TFIs as constructed in "Trade Facilitation Indicators (as such, it does not take account of the more recent cancellation of more than 200 administrative procedures, for example): The Potential Impact of Trade Facilitation on Developing Countries' Trade" (OECD Trade Policy Paper No. 144, 2013) for 107 countries outside the OECD area.

Intensification of global trade and proliferation of global value chains (GVCs) will continue to support growth and jobs in China

As transportation costs continue to fall, and as production processes become increasingly fragmented across countries with the proliferation of GVCs, global trade is expected to increase further (Figure 2.7), albeit possibly at a slower pace than in recent decades. The ratio of exports to global GDP tripled between 1950 and 1998, but it is expected to increase by only around 60% between 2010 and 2060, and to varying degrees across regions. Trade patterns will reflect the shifting balance of global economic power, with exports from non-OECD countries expected to rise from 35% of world exports in 2012 to 56% by 2060.²⁰ At the same time, the elasticity of global trade with respect to GDP is expected to decline as scope for the elimination of trade barriers moderates and as the physical limits on the extent to which production processes can be dispersed eventually slows the pace of the fragmentation of production processes across GVCs.²¹

Figure 2.7 Exports as a share of GDP will increase across advanced and emerging-market economies
Exports as a share of GDP



Source: Johansson, A. and E. Olaberria (2014), "Long-term Patterns of Trade and Specialisation", OECD Economics Department Working Paper No. 1136.

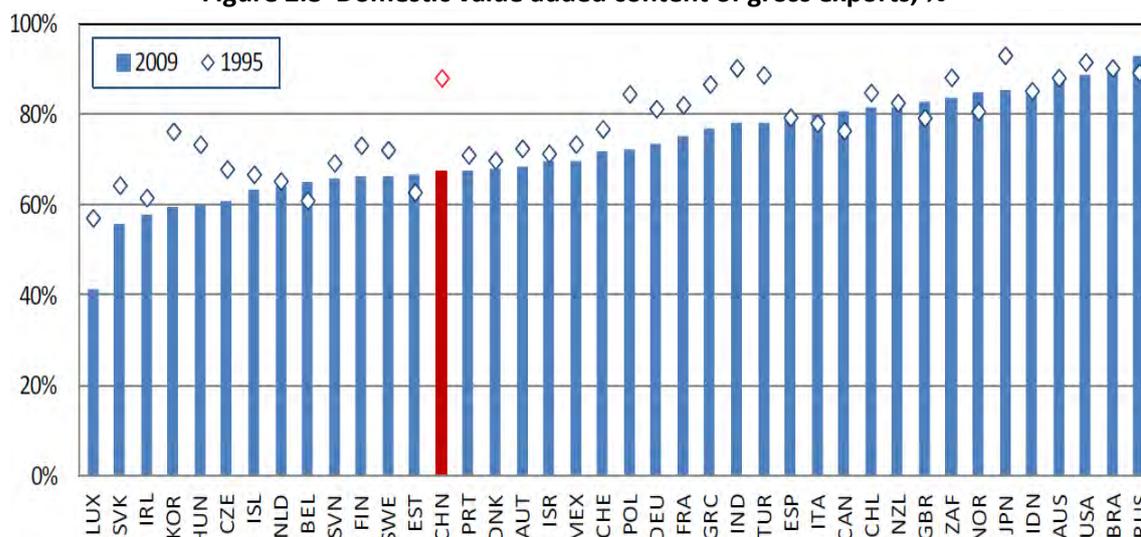
China is expected to continue to be one of the main engines of global GDP and trade growth over the period to 2030, by which time it is expected to account for 15% of world exports.²² While China became the world's largest exporter – and the world's second largest importer – of merchandise in 2012, when measured in value added terms, China's share was lower. Indeed, the domestic value added content of China's exports was 67% in 2009, below the OECD average (76%), and the second lowest in the G20 (Figure 2.8). This reflects China's role in GVCs mainly as an assembler, engaging in relatively low value added activities.

²⁰ OECD, 2014a.

²¹ Fontagné and Fouré, 2013.

²² OECD, 2014a.

Figure 2.8 Domestic value added content of gross exports, %

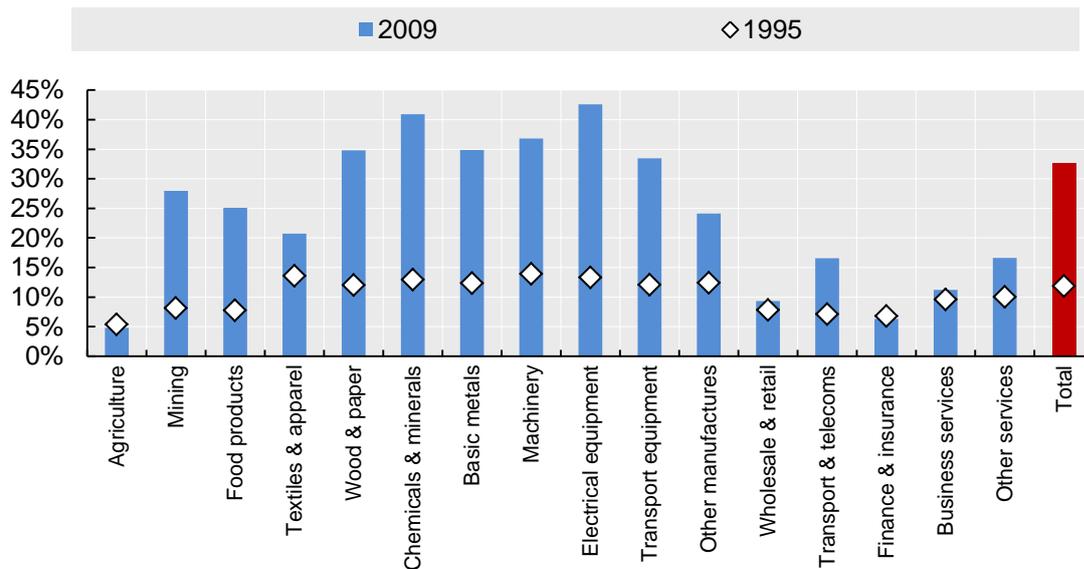


Source: OECD TiVA database.

With increased integration into GVCs, the foreign content of China's exports increased significantly in all manufacturing sectors between 1995 and 2009 (Figure 2.9), although this import dependence varies across industries. While China's high-technology exports tend to rely heavily on imported intermediate inputs, the import content of some low-technology goods – such as apparel – is comparable to that of advanced countries.²³ Between 1995 and 2009 specialisation in assembly activities saw the import content of China's exports of electronic products more than treble to 43%, driving the sector's share of overall domestic value-added exports up to 30% in 2009, and highlighting the complementary nature of foreign value added to domestic value creation. The chemicals and minerals, machinery, electrical equipment and basic metals sectors also had relatively high shares of foreign content. This reflects the fact that while China has domestic capability in producing some labour-intensive exports, such capability is still limited in high-technology sectors.

²³ OECD, 2012.

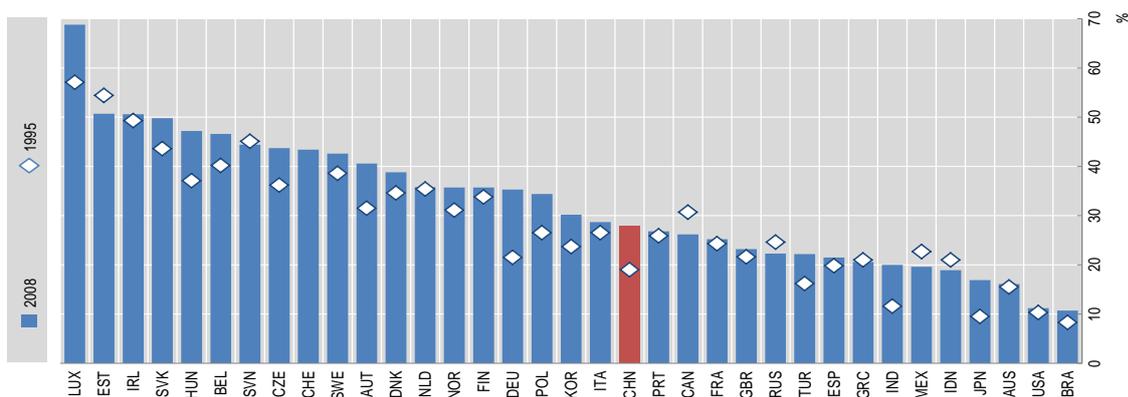
Figure 2.9 China's foreign value added content of gross exports, by industry, %



Source: OECD TiVA database, May 2013.

Foreign-owned affiliates have played a leading role in China's integration into GVCs as they are responsible for most of the Chinese processing trade. Thanks to its abundant labour force, China has attracted large FDI inflows to establish manufacturing facilities engaging in labour-intensive processes, such as final assembly. Preliminary estimates indicate that one-quarter of the domestic value added in exports was created through foreign affiliates in 2009, with a large part accruing to domestic factors of production, in particular through labour income. OECD indicators also highlight the important role of trade in creating jobs. Preliminary estimates suggest that in 2008, 20% to 45% of business sector jobs in most European economies were supported by final consumers in foreign markets (Figure 2.10). In China, over 25% of business sector jobs were supported by foreign demand, an increase of 7.5 percentage points compared to 1995. Other emerging-market economies, such as Brazil and India, also saw significant increases in the number of jobs supported by foreign demand.

Figure 2.10 Jobs in the business sector supported by foreign final demand, 1995 and 2008
(in per cent of total business sector employment)



Note: Estimates are calculated on the basis of demand for goods and services at the "factory gate" and do not include the jobs sustained by distributors and providers of transport, logistics and insurance services that sell imported products to domestic consumers at the end of the value chain. These estimates capture those jobs sustained by foreign final demand but not the jobs sustained via investment channels.

Source: OECD (2013b), OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth, OECD Publishing.

China must continue to move up the value chain

Specialisation patterns will continue to evolve, partly reflecting more rapid up-skilling in emerging-market economies. Manufacturing sectors will continue to decline in importance in OECD countries. For instance, Japan, South Korea and the United States are expected to lose their comparative advantage in electronics to China and other Asian countries, who could together account for as much as 60% of world exports in that sector by 2020 from less than 50% in 2010²⁴. At the same time, new and emerging technologies – such as 3D printing – as well as cost changes are expected to shorten supply chains and could potentially lead to some ‘reshoring’ of jobs.

Overall, China is likely to continue to diversify its production over the coming decades²⁵, expanding the scope of its manufacturing trade, even as services come to account for a larger proportion of the economy. These projected changes in trade specialisation are, however, predicated on a number of assumptions, including that those countries with relatively stringent product market and trade regulations gradually adopt more pro-competition regulations. Shifts in global trade patterns will instigate substantial structural change to existing GVCs while giving rise to new ones. As its comparative advantage in low-cost labour is eroded, however, the challenge for China is to upgrade its industrial production and exports by moving into higher value added activities so as to maximise the benefits it derives from participation in GVCs. Export-oriented Chinese firms will therefore need to adapt to these changing networks of customers and suppliers as well as increased competition from other emerging-market economies, notably among neighbouring countries, over the location of those higher value added activities. This will involve maximising gains from spillovers to upstream domestic intermediaries and *via* technology transfer, as well as through upgrading more generally.

There are signs that increased upstream spillovers may already be taking place. The development of human capital and innovation capacity over the past decade suggests that China is already becoming a more important supplier of value-added to other countries’ production. In 1995, China’s exports were valued at USD 148 billion, of which 60% were destined for final consumption. By 2012, the value of China’s exports had increased 14-fold to USD 2.2 trillion and the structure of its exports had changed substantially towards high-end intermediate products and final goods. The value of manufactured intermediate exports rose 15.7 times over this period, compared with 2.5 times in the USA and 1.8 times in Japan.

Service sector reforms are needed to underpin the transition to higher value added activities

In China, fostering service industries as a new source of growth is at the centre of policy discussions. The 12th Five-Year Plan for National Economic and Social Development (FYP) (2011-2015) emphasises the focus on inclusive growth, aimed at ensuring that the benefits of economic growth are spread to a greater proportion of Chinese citizens. The Plan also recognised the importance of service sector development and targeted a 4 percentage point increase of the sector’s share in GDP, from 43% in 2011. By mid-year 2014, China had almost reached that goal. Specific objectives included to improve and develop financial and other services for SMEs, tourism, E-commerce and related logistics, modern railway networks, energy saving services as well as next generation ICTs.

²⁴ OECD 2014b.

²⁵ OECD, 2014b.

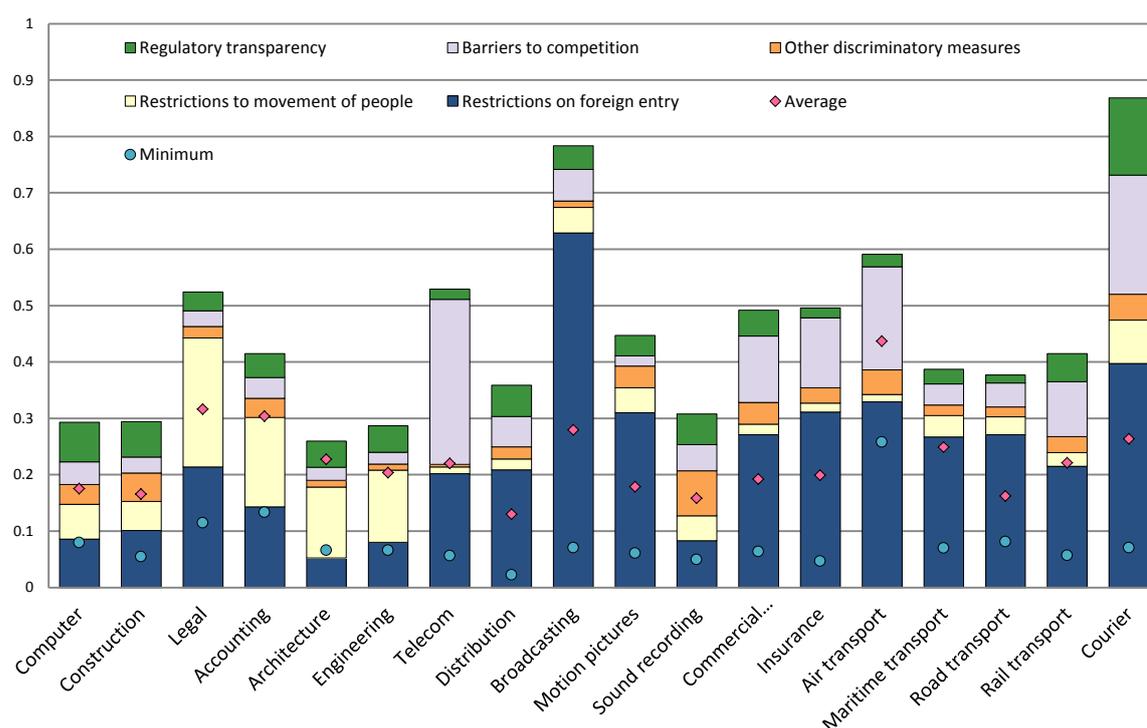
There is significant scope for expansion in services exports as improvements in the quality of resources and institutions allow a shift towards more advanced economic activities. While China's exports make up 11% of global merchandise trade, they account for only 4% of world services trade. According to the latest TiVA data, only 30% of China's exports are accounted for by services (exported either directly or indirectly as an input embodied in exported goods). This is relatively low compared to the OECD average (48%), but also below several non-OECD countries. This may, however, partly reflect the vertically integrated nature of Chinese industries relative to OECD economies, which have in recent decades outsourced many business services, suggesting scope for boosting the competitiveness of Chinese manufacturers through service sector reform. Moreover, the country has made incredible progress in developing competitive services and now has already a positive trade balance in most services and made significant productivity improvements, particularly in business services (OECD, 2014k).

Improved performance in trade-related services, such as logistics, can also support economy-wide competitiveness gains and facilitate integration into more sophisticated value chains. Recent OECD work suggests that strict regulations on services in China have substantial negative impacts on firm productivity in other domestic sectors.²⁶ If attention is focused on China's export-oriented industries, it is clear that services have so far not been liberalised to the extent of manufacturing.

Across the 18 sectors and 40 countries included in the OECD Services Trade Restrictiveness Index (STRI) database, China currently records much higher levels of restrictiveness relative to the average as well as the lowest overall score (Figure 2.11), largely because of barriers to foreign entry, insufficient transparency of domestic regulations and administrative burdens. While the level and nature of restrictiveness varies across sectors, an easing of restrictions on foreign entry is the main cross-cutting area where reform could facilitate productivity gains and the accumulation of knowledge-based capital. Barriers to competition and restrictions on the movement of people also weigh heavily on certain sectors.

²⁶ Bas and Causa, 2012.

Figure 2.11 OECD Services Trade Restrictiveness Index by sector and policy area



Note: The STRI indices take values between zero and one, one being the most restrictive. They are calculated on the basis of the STRI regulatory database which contains information on regulation – including behind the border regulations – for the 34 OECD members, Brazil, China, India, Indonesia, Russia and South Africa. The STRI database records measures on a Most Favoured Nation basis. Preferential trade agreements are not taken into account. Air transport and road freight cover only commercial establishment (with accompanying movement of people). A detailed note on the STRI methodology is available at: http://www.oecd.org/tad/services-trade/STRI_scoring_methodology.pdf. See section 3.2 for a detailed discussion on Product Market Regulations.

The multilateral system remains the first best option for boosting trade, growth and job creation

Given the structural dynamics of today’s global economy, the multilateral trading system remains the first best option for boosting trade, growth and job creation. The Bali package reached at the 9th WTO Ministerial Conference in December 2013 was an important milestone, with the potential to reinvigorate multilateral negotiations going beyond its three essential elements – trade facilitation (Box 2.1), agriculture and food security, and development issues. WTO members have agreed to set July 2015 as the new deadline for agreeing a work programme for completing the Doha Round of negotiations as a whole. For members to build upon momentum regained in 2014, a critical focus of the agenda will be to make progress on non-agricultural market access (NAMA), services, and agricultural negotiations.

In parallel, WTO members are turning to plurilateral and sectoral initiatives to advance trade openness. China and 13 other WTO Members, including the United States and the European Union, have started negotiations in Geneva on a new plurilateral agreement to eliminate tariffs on environmental goods as part of the original Doha mandate. Such an agreement would advance another important element of the Doha round while building momentum for these countries to address barriers to industrial goods and services trade.

A Trade in Services Agreement (TISA) is also being negotiated by 23 parties, including the EU representing its 28 member states. Together, these 50 WTO members represent 70% of the world's trade in services. TISA is the most promising opportunity in two decades to improve and expand trade in services. The last major services agreement, the General Agreement on Trade in Services (GATS), was reached by the WTO in 1995. Since then, the world's economy has evolved dramatically as a result of technological advances, changing business practices, and deeper global integration. The TISA can establish new market access commitments and universal rules that reflect 21st century trade. Given the increasing importance of services in the global economy, and in China's own economic development and rebalancing, its participation in TISA would be a very welcome development.

China should pursue domestic reforms that would support integration into regional agreements

Despite incremental advances in the multilateral trade agenda, regional trade agreements (RTAs) have become increasingly important, with the three largest 'mega' initiatives representing over three quarters of global GDP and two-thirds of world trade (Box 2.2). In time, these ambitious endeavours could become "multilateralised", whereby selected deeper measures incorporated in RTAs could be diffused more widely and consistently across regional negotiations, and lead to convergence at the multilateral level.

Many current RTAs contain elements that deepen co-operation on regulatory issues such that new market opportunities are created even as participants address structural impediments in their own economies. Next-generation RTAs strive to go even further, and will increasingly mean that countries will need to integrate trade and investment measures into their wider domestic structural reform agendas. In fact, countries may be able to use current and prospective negotiations in mega-RTAs on 'behind the border' regulatory provisions as drivers for desired domestic reforms.

The larger structural issue of whether, when and how to multilateralise WTO-plus and WTO-beyond provisions in RTAs are primarily political questions for governments to address. Although regionalism may evolve naturally towards a comprehensive multilateral system, it is also desirable for countries to explicitly examine options that would help transfer selected emerging practices to a more genuinely global rule-book.

For China, consolidating the considerable reforms agreed since its entry into the WTO may not be sufficient to adapt to recent and ongoing developments in global markets and rule-making. Further integration into the world economy is called for via active participation in next-generation RTAs while simultaneously advancing needed domestic structural reforms. The economic benefits of doing so, to China and to the world, would be substantial.

Box 2.2 The rise of mega-RTAs

Over the past several years, particularly in light of the previously stalled Doha round, many WTO members have actively sought to establish new bilateral and regional trade agreements (RTAs) to increase trade and spur economic growth. RTAs will continue to play a significant role in international trade, and can even complement the multilateral system to the extent that they go beyond commitments made in the WTO, (so called ‘WTO-plus’ measures) and remain open to additional participation by countries committed to meeting their standards.

RTAs are not a new phenomenon, but the latest mega-regional initiatives are on a new scale. Current RTAs are already on a path that moves beyond existing multilateral rules onto issues like investment, movement of capital and persons, competition and State-owned enterprises, e-commerce, anti-corruption, and intellectual property rights. These issues have become increasingly salient in recent years with increasing trade intensity globally as well as technological advances.

The three largest ‘mega’ initiatives – the Transpacific Partnership (TPP), the Regional Co-operation in Asia and the Pacific (RCEP), and the Transatlantic Trade and Investment Partnership (TTIP) – represent over three quarters of global GDP and two-thirds of world trade. Negotiations have not yet concluded, and it remains to be seen what the final outcomes will be, but their initial ambition is certainly high, and some aim to go beyond the provision of preferential access to member countries’ markets, seeking to establish “high standard” 21st century trade agreements characterised by deep and comprehensive market integration.

Apart from the requirement for RTAs to be consistent with multilateral rules, policy-makers are also mindful of the more general issue of coherence across regional arrangements as well as between regional and multilateral systems. Some countries even negotiate RTAs with an explicit intention of setting precedents for future multilateral rule-making. Other countries view deeper measures in regional partnerships as a way of complementing the multilateral system. In either case, there has been a growing interest in the question of “multilateral-friendly” practices that can help promote convergence, be it through bottom-up (RTAs-driven) or top-down (WTO-driven) channels.

Overall, there are several areas of convergence to note. For a start, most WTO-plus measures have attracted significantly deeper commitments, by an increasingly representative group of WTO Members. There has been a clear propagation of WTO-plus measures in North-South as well as in South-South RTAs, suggesting that there may be growing receptivity and preparedness on the part of developing countries – at least middle-income economies – to endorse a deeper level of commitments. There is also a considerable degree of similarity across the WTO-plus measures, which have been strengthened over time. Some of the benefits conferred regionally in terms of enhancing transparency, pro-competitive practices, environmental protection, and establishing stronger anti-corruption and copyright enforcement, generate benefits for all operators in those markets, including exporters and importers from third-party countries.

In some areas (services, export restrictions) there appear to be instances of WTO-minus commitments. Another aspect that could warrant attention in future negotiations relates to alternative architectures and scheduling practices that have been developed, notably in investment, competition, and services. Addressing these differences calls for creative efforts and flexible approaches in order to be able to translate regionalism into multilateralism.

Lastly, with the exceptions of environment and labour, there have been efforts to make RTA WTO-plus obligations stronger, migrating from provisions couched in best-endeavour language into firmer commitments creating obligations that are subject to dispute settlement mechanisms. While this signals the importance countries attach to these obligations, and their preparedness to implement them, there are open questions as to whether regional mechanisms are strong enough to ensure compliance.

2.5 Responding to shifting patterns in innovation

One of the important lessons of the past two decades has been the pivotal role of innovation in economic development. Many successful emerging-market economies have recognised that innovation is not just about high-technology, and that indigenous innovation capacity has to be built early in the development process to sustain a catching up in relative living standards. As more countries undertake innovation, the sources of knowledge have diversified, as has the competition to attract investment and talent. In the medium term, sustained investment in research and innovation, as well as getting the policy framework right, will therefore continue to play an important role in supporting sustainable and inclusive growth worldwide. Increased integration in the global economy, notably through the proliferation of GVCs, is also a major factor impacting on innovation.

China can move toward greater innovation-based growth and facilitate upgrading its participation in GVCs by continuing to improve the framework conditions for innovation, deepening the reform of the public science and technology (S&T) system, and fostering the human resources for science and innovation. Chinese firms must continue to invest in the accumulation of knowledge-based capital and indigenous technological capability. Such investments will also help China keep pace with new developments in technology that otherwise risk diverting at least some GVCs to locations closer to the final consumer.

China is already taking steps to transition to an innovation-driven economy

Science, technology and innovation have been given an important role in China's new growth model, as evidenced by an increase in R&D expenditure to more than 2% of GDP in 2013, overtaking the EU average though still behind the US, at 2.8% of GDP, or Japan, at almost 3.4% of GDP. More than three quarters of this research is performed by business (including State-owned enterprises), with government institutes accounting for 16% and higher education institutions for almost 8%. The strong role of business in China's R&D spending contributes to a low level of investment in basic research, only 0.1% of GDP, compared with nearly 0.5% in the United States. State-owned and State-controlled enterprises continue to account for a high share (up to 50% depending on the indicator used) of China's R&D and innovation activities, implying that the system is not yet enterprise-centred. *The Medium and Long-Term National Plan for Science and Technology* aims to lift R&D spending to 2.5% of GDP by 2020.

Various existing policy instruments aim to foster an enterprise-centred innovation system and emphasise the indigenous innovation capacity of Chinese firms. For example, the main tax incentive, which provides a 150% super allowance on eligible R&D expenditures, was revised in 2013 to expand the range of eligible R&D costs and make not-for-profit R&D organisations eligible for tax allowances on imported R&D equipment. Tax incentives are also granted to firms investing in education and training programmes, while the corporate income tax and the value added tax have been reduced for high-technology enterprises, SMEs and ICT firms to support their development.

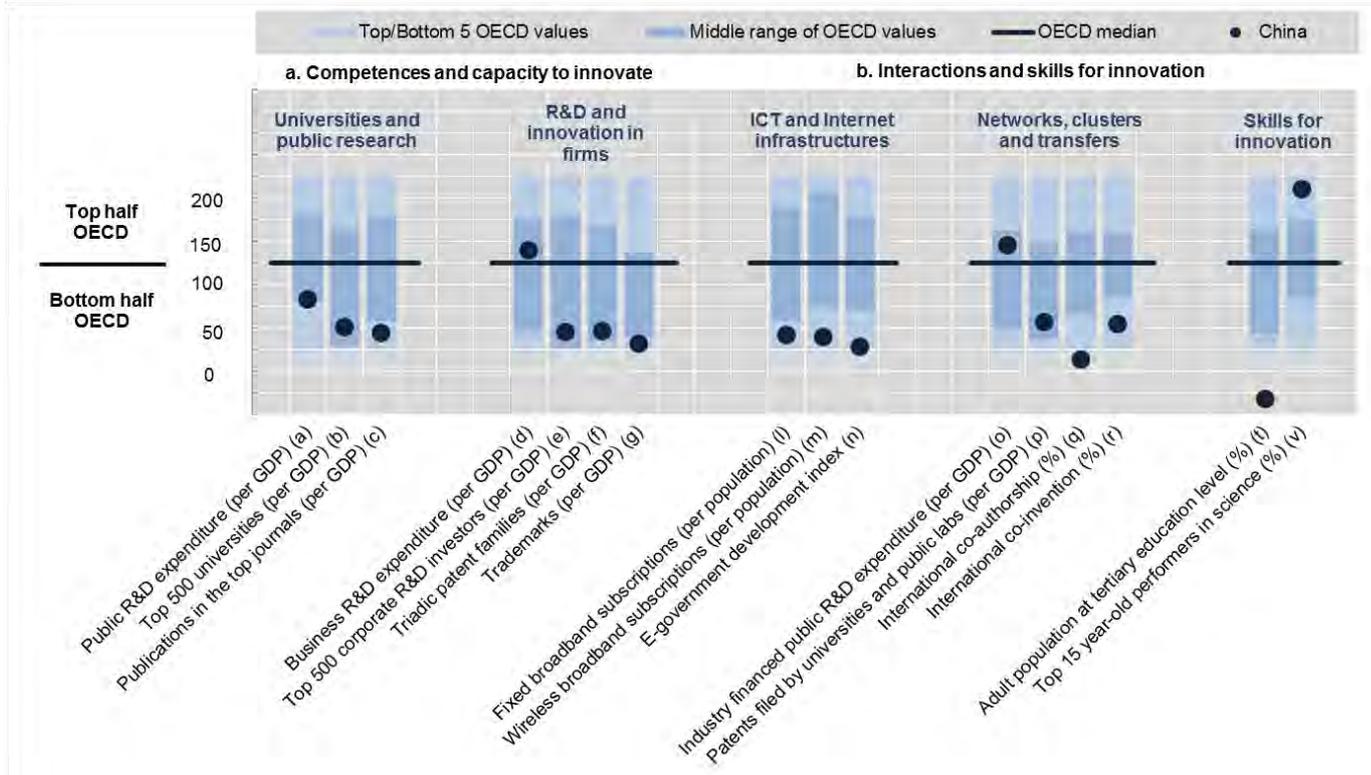
One area in which China has already had some success in moving up the value chain through energy is in renewable energy technology (see section 2.6), as measured by its contributions to global patent development. From 2000 to 2010, the growth of patent applications in renewable energy in IEA partner countries was impressive, even when compared with IEA member countries. A large share of the growth took place in China.²⁷ Most importantly, the introduction of mass-scale manufacturing in China, notably of solar PV modules, has significantly contributed to the rapid reduction of technology costs worldwide.

²⁷ IEA (2013) *Energy Investments and Technology Transfer across Emerging Economies: The Case of Brazil and China*. International Energy Agency: Paris

However, further reforms are necessary to spur innovation

While China’s gross R&D expenditure has increased in recent years, this is largely concentrated in the SOE sector, while expenditure as a percentage of sales or value-added remains very low in most Chinese enterprises. Although the number of patent applications by Chinese residents has soared, Chinese innovation output is still lagging in terms of international patenting and trademark registration (Figure 2.12).

Figure 2.12 Comparative performance of China’s science and innovation systems
(Normalised index of performance relative to the median values in the OECD area, in 2014
(index median = 100)



Source: OECD, Science, Technology and Industry Outlook 2014.

As yet, performance in a number of key areas - such as the number of universities in the top 500, publications in top scientific journals and international co-inventions - also remains at the bottom end of the results achieved in the OECD area. There is also a lack of venture capital, and the business environment remains difficult for innovative start-ups. The dominance of State-owned enterprises (SOEs) in certain sectors further tends to damp the pressures to innovate that normally arise from competition. Monopolistic positions and privileges of the SOEs should be progressively removed so as to make them subject to the same market competition as private firms, thereby forcing them to be competitive through innovation (see section 4.3). For this to happen, it is important to continue with reforms that provide a level playing field for public and private firms, both Chinese and foreign. Corporate governance also needs to be improved more broadly (see section 3.6). A key challenge remains co-ordinating the multiple roles played by State entities – as shareholders, regulators and managers (OECD, 2011).

Improving the business sector's innovation capability is therefore a key challenge. In a survey of SME managers in China that examined the key institutional barriers to innovation, the top two responses related to problems in accessing finance and unfair competition.²⁸ Strengthening framework conditions in competition (sections 3.2 and 3.3), access to finance (sections 3.4 and 3.5) and governance (sections 3.6 and 3.7) will therefore be particularly important as these constraints hold back the ability of small firms to innovate and commercialise new technologies. In a welcome step in the right direction, access to finance has been improving recently, with a rapid increase in bank lending to small and micro enterprises.

Another critical step is to support a broader concept of innovation by striking a better balance between investing in technology breakthroughs in new and high-technology sectors and in the diffusion of existing technologies across different economic sectors. Moreover, it will be essential to use innovation to address inclusiveness and societal challenges by supporting technology diffusion and innovation that address the needs of the underprivileged and rural populations (see section 3.2 of the companion report *All on Board: Making Inclusive Growth Happen in China*). This will require a whole-of-government approach to innovation policies, with improved co-ordination among government agencies. It will also require enhanced evaluation of policies and programmes and a shift in policy emphasis from the achievement of narrow targets to a greater focus on outcomes and impacts.

Improvements in IPR systems and corporate governance will promote investment in intangible assets

Chinese firms must be supported in further developing their own intangible assets, such as high-quality intellectual property. For example, indigenous enterprises have been developing their own designs and brands targeted to China's large domestic market and to other emerging-market economies. Such intangible assets represent an advantage for Chinese firms, compared to OECD firms that often have to adapt their products to emerging-market economies. By leveraging their expertise in domestic and in other emerging-market economies, Chinese firms can be leaders in innovating new designs and concepts. At the same time, firms from OECD countries still hold a strong technology and quality edge while most established brands come from OECD countries. Many MNEs are also already developing products targeted to Chinese consumers while foreign affiliates based in China hold substantial market shares in industries ranging from apparel to transportation equipment and computers.

An effective intellectual property rights (IPR) system is key to underpinning innovation by balancing the need to provide sufficient financial reward and protection for costly investments against the need to make new technologies adequately accessible to firms. Since China joined the WTO, the IPR framework has been brought into closer alignment with those in operation in many OECD countries. Efforts to strengthen enforcement have also been stepped up, including the adoption of a National Intellectual Property Strategy in 2008, but concerns remain over infringement, including on software piracy and the production of counterfeit goods. Increasingly, these concerns are being voiced by Chinese firms involved in domestic disputes.

²⁸ Zhu *et al.*, 2012.

Further reforms can enhance public R&D capacity and rationalise R&D expenditure

Although many public research institutions (PRIs) became corporate entities as part of the reforms to the S&T system in the early 2000s, they still dominate China's public research and are strongly oriented towards applied and experimental R&D. With innovation output continuing to lag the input of resources, further reforms are needed. A new round of reforms aims to clarify the roles of the three types of PRI (commercial innovation, social welfare and basic research), and to establish appropriate governance and funding mechanisms so that they can fulfil their missions.

Furthermore, ensuring that funding is allocated efficiently and transparently is essential. Public funding allocations have not always followed best practice and have been skewed to favour particular initiatives or outcomes.²⁹ In addition, a balance must be struck between funding for fundamental research and supporting innovation of commercial or social value. Compared with OECD countries, public R&D funding in China is heavily oriented towards applied R&D. To sustain long-term competitiveness, some rebalancing towards cutting-edge fundamental research will gradually need to occur as China's productivity level catches up to countries at the technology frontier.

Developing world-class human resources for science, technology and innovation is critical

As China moves up the value chain and transitions to an innovation-driven economy, the skills of the labour force will need to be upgraded commensurately. Although China has the world's largest pool of human resources for STI, the tertiary-qualified share of the population is still extremely low (Figure 2.12, above). Furthermore, China lacks a critical mass of world-class researchers. Greater international openness will be essential to tap into the global talent pool including, but not limited to, the Chinese diaspora, while further reforms to the public R&D system should ensure the right incentives for the highly skilled as well as the appropriate conditions to support creativity and research integrity. Reforms recently announced by the State Council aiming to improve the transparency of the university recruitment and entry process, and to expand access to university for students from less developed Central and Western regions, are welcome developments in this regard. As importantly, a labour market that facilitates the free mobility of highly qualified researchers, and a fair and transparent R&D funding system, are also important to attract talent. Attention should also be given to building non-technological skills for innovation.

School and university curricula should be informed by the needs of employers, including through the maintenance and update of indicators of skill demand and supply. These should be complemented by well-designed vocational education and training programmes at post-secondary level.

Engaging employers in the design of educational systems requires institutionalised consultation between employers, the government and education administrators. The need for such an arrangement is especially acute in times of rapid structural change, such as China is currently undergoing. One option would be to develop employer groups across different levels of industry (national, sectoral and provincial). Firms may be encouraged to participate given the influence they could have on skill formation by helping design curricula. In addition, skill development hubs (including those aimed at improving R&D skills) could be established close to specific industry clusters, ensuring students learn job-relevant skills through collaboration with industry and access to

²⁹ Shi and Rao, 2010.

new technologies. China should also consider establishing a dedicated entity that facilitates employer engagement in the provision of workplace training. Typically, such bodies focus on improving the match between the needs of employers and those students looking for workplace training. They also take care of all administrative duties, removing a considerable burden from employers. Examples are the group training organisations in Australia or the training offices in Norway.³⁰

Quality standards need to be assured in workplace training

At present, quality assurance in workplace training is relatively weak in China. Reports of inadequate teaching or resources are common, posing the risk that problems become more widespread as the provision of workplace training is expanded. Training standards should be well established and enforced, and should include clear learning targets, complementing off-the-job schooling objectives; well-designed preparatory programmes to prepare the supervisors of trainees; and guidelines that ensure trainees are achieving learning outcomes rather than undertaking unskilled work. To promote these standards, apprenticeship or traineeship contracts are particularly important. These should outline the rights and obligations of both trainees and cooperating firms, and should be developed with the engagement of all relevant parties. For example, such contracts exist in Australia, Switzerland and Austria.³¹

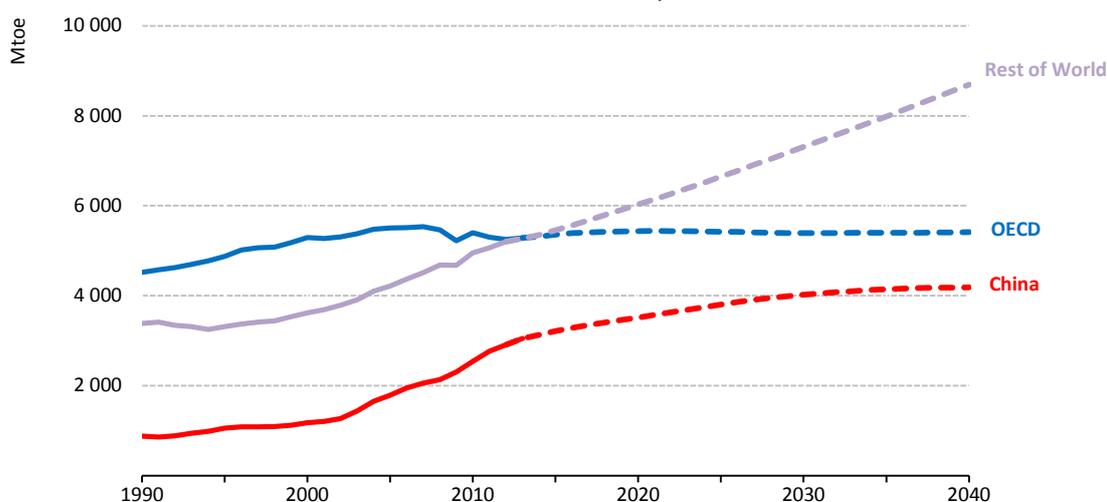
2.6 Responding to shifting patterns in global energy

The global energy system faces numerous challenges. The recent fall in oil prices offers some comfort to consumers, but concerns about longer-term market dynamics remain. Instability in parts of the Middle East gives rise to a risk of under-investment in the upstream petroleum industry there, with implications for supply in the longer term. Conflict between Russia and Ukraine brings additional anxiety to the global gas market, raising gas security concerns in Europe. Nuclear power, which for some countries, including China, plays a strategic role in energy security, faces an uncertain future. Expectations are high for the 2015 UN climate negotiations in Paris, while global greenhouse gas emissions continue to increase and air pollution remains a major concern in many cities around the world, including some major Chinese urban centres. Meanwhile, global demand for energy is expected to continue rising rapidly, even as it levels off in OECD countries (Figure 2.13).

³⁰ Kuczera and Field, 2010.

³¹ Kuczera and Field, 2010.

Figure 2.13 Global energy demand to continue rising as it levels off in OECD countries
Million tonnes of oil equivalent



Source: New Policies Scenario of IEA World Energy Outlook 2014.

Improvements in efficiency and continuous efforts to innovate and reduce the cost of emerging energy technologies are imperative, but will not alone resolve concerns about the security and sustainability of energy supply. Actions from well-informed policy makers, industry and other stakeholders are needed globally, and China is one of the most important countries, if not the most, holding the key.

The short-term picture of a well-supplied oil market should not distract attention from the challenges that lie ahead as reliance on a relatively small number of producers grows. In the New Policies Scenario of the IEA *World Energy Outlook (WEO) 2014*, increased oil use for transport and petrochemicals drives global oil demand higher, from 90 million barrels per day (mb/d) in 2013 to 104 mb/d in 2040.³² Investment of some USD 900 billion per year in upstream oil and gas development is needed by the 2030s to meet projected demand, but there are many uncertainties over whether this investment will be forthcoming in time – especially once US tight oil output levels off in the early 2020s and total production starts to fall back.

By 2040, demand for natural gas is projected to grow by more than half, driven mainly by China and the Middle East, with an increasingly flexible global trade in liquefied natural gas (LNG) offering some protection against the risk of supply disruptions. With the exception of Europe, gas production increases almost everywhere, and unconventional gas accounts for almost 60% of global supply growth. The key uncertainty – outside North America – is whether gas can be made available at prices that are attractive to consumers while still offering incentives for the necessary large capital-intensive investments in gas supply. Import needs are set to rise across much of Asia as well as in Europe, but concerns about the security of future gas supply are allayed in part by a growing cast of international gas suppliers, a near-tripling of global liquefaction capacity, and a rising share of LNG that can be re-directed in response to the short-term needs of increasingly interconnected regional markets.

³² Source: IEA (2014) *World Energy Outlook 2014*. International Energy Agency: Paris. The New Policies Scenario is the central scenario of WEO-2014. It takes into account the policies and implementing measures affecting energy markets that had been adopted as of mid-2014, together with relevant policy proposals, even though specific measures needed to put them into effect have yet to be fully developed.

While coal is abundant and its supply is secure, future use is projected to be constrained by measures to tackle pollution and reduce CO₂ emissions. Global coal demand grows by 15% to 2040, but almost two-thirds of the increase occurs over the next ten years. It is projected that Chinese coal demand will plateau at just over 50% of global consumption before falling back after 2030. Demand is projected to decline in the OECD, including the United States, where coal use for electricity generation will plunge by more than one-third. India is projected to overtake the United States as the world's second-biggest coal consumer before 2020, and soon thereafter surpass China as the largest importer.

The rapid growth of renewables has been one of the most promising features of what has otherwise been sluggish progress towards a more secure and sustainable energy future. In 2013, renewable power generation continued to grow strongly, reaching almost 22% of the global mix. Renewables now produce as much electricity worldwide as gas and more than twice that from nuclear power.

Renewables are a necessary part of energy security and are becoming cost-competitive options in an increasing number of cases. Key markets are expected to significantly increase, in particular in the power sector, despite lingering policy and regulatory uncertainty. In the New Policies Scenario of the IEA *WEO-2014*, electricity generation from renewables increases by 8 400 TWh by 2040, more than 25% of which takes place in China. From 2035 onwards, renewables become the first source of electricity worldwide, ahead of coal.

To respond to these shifts in the global energy landscape, China needs a comprehensive approach to energy policy that rests on four pillars:

- Pillar 1: promoting market-oriented energy sector reform.
- Pillar 2: improving energy security and diversification.
- Pillar 3: increasing and reinforcing measures for environmental protection, especially emissions reduction.
- Pillar 4: further strengthening international co-operation.

Pillar 1: Promoting market-oriented energy sector reform in China

Energy prices have long been kept low, leading to the massive development of energy-intensive industries, and giving energy-intensive products a competitive edge both domestically and in global markets. As well as distorting resource allocation, this has given rise to a relatively high intensity of greenhouse gas emissions per unit of output (see section 3.3 of the companion report *All on Board: Making Inclusive Growth Happen in China*). It is encouraging that China is embarking on progressive energy sector reform, as clearly set out in President Xi Jinping's speech on energy revolution and international co-operation in June 2014. In line with these aspirations, there is a need for market-oriented energy sector reform, focusing on electricity and gas in particular.

With the largest electricity industry in the world, China has succeeded in providing almost universal access to electricity as well as supplying the rapidly growing electricity needs brought on by urbanisation and industrialisation, although at the cost of serious environmental impacts. Power generation in China is dominated by coal supplied predominantly by domestic mining. Although China plays a leading role in developing and deploying cleaner coal technologies, there is no doubt that China's environmental and climate change objectives will necessitate a reduction in its overall dependence on coal.

While there is substantial private investment in power generation in China, the industry is nevertheless dominated by five majority state-owned companies. Moreover, electricity wholesale pricing and dispatching is not yet market-based. The State Grid Corporation of China (SGCC) acts as a transmission system operator and offtaker of electricity in most of the country, with China Southern Power Grid (CSPG) enjoying a similar but smaller regional monopoly. The offtake prices are individually regulated, and SGCC retains substantial discretion over dispatching. SGCC resells the power to regional supply monopolies that serve end users at regulated prices. The network component of electricity prices appears to be unusually low in comparison with other countries.

This model creates a substantial investment risk for power plants: given the centralised authority on electricity and fuel pricing, there is no automatic link between regulated electricity prices and fuel costs; as well, there exists an increasingly higher risk of over-capacity-induced utilisation. In the past, these problems were masked by very rapid demand growth, which has led to a high level of utilisation for most power plants. In addition, dominance of coal-fired generation and the similarity of the power plant capabilities limited the efficiency losses caused by the lack of market signals in dispatching.

Given the progress achieved so far in its electricity reform, China is well positioned to create an effective, well-functioning wholesale market that will enable efficient dispatching and renewable integration. Given that around 70% of national power consumption is for the manufacturing sector, development of retail competition for low-voltage clients should not be seen as the first priority. Since international experience suggests that retail competition has high transaction and regulatory costs, and is ineffective without a well-functioning wholesale market, the first priority should be to create a wholesale market.

One way to achieve this is to transform SGCC and CSPG into unbundled Transmission System Operators (TSO) by moving their wholesale buyer function into a separate entity. Then, unbundled network tariffs should be set by an adequate regulatory authority at a level that reflects the capital costs of the network and creates incentives for further transmission development. By doing so, the single-buyer entities, unbundled from the grid companies, could be replaced by a wholesale market where power generators, supply utilities, large industrial consumers and service aggregators would be entitled to contract for electricity and access the transmission grid under transparent and non-discriminatory conditions.

Needless to say, any reform of the electricity sector needs to strike the right balance between exposing investors to market prices with the associated risks and providing sufficient investment certainty for profitability. And, to serve wider policy objectives, market and administrative conditions should encourage investments in the electricity sector, in particular, investments for capital-intensive but low-carbon technologies.

As recently as 2000, natural gas entered China's energy system relatively recently, with negligible consumption. The share of natural gas in China's primary energy consumption is only around 6% compared with more than 20% in both Europe and the United States. Where natural gas replaced coal in OECD countries decades ago, China still uses substantial quantities of coal in applications such as building heating or industrial boilers. Progressively introducing natural gas into these applications, especially distributed combustion, has the potential to deliver large environmental and health benefits.

China has substantial geological resources of natural gas, especially shale gas. However, the industry is nascent compared with its counterpart in North America. The Chinese government aims for 6.5 bcm output by 2015 and 30 bcm by 2020, with significant development during the 13th Five-Year Plan period. But multiple above-ground problems hinder shale gas development, including difficulties in adapting foreign technologies to fit China's difficult geology, inadequate pipeline access, a weak service sector background, and barriers that prevent independent companies from accessing resources.

China National Petroleum Corporation (CNPC), the dominant company in the Chinese gas industry, controls around 70% of domestic gas production as well as pipeline imports from Central Asia and, soon, from Russia. It also owns the bulk of the national oil and gas transport system. There is no regulated third-party access to pipelines in China, although there are cases where CNPC provides access to its pipelines on an individually negotiated basis.

In most cases, independent producers are forced to sell at the wellhead or look for gas utilisation opportunities locally. Given transport costs and regulated prices in the major cities, wellhead prices are typically lower than the value of gas; thus, the current system tends to discourage and devalue domestic gas development. It is important, therefore, to ensure that independent producers and new entrants can gain access to resources based on a competitive and non-discriminatory upstream licencing. Creating a pipeline transmission company unbundled from CNPC's domestic pipeline operations may be one of the ways to move forward. Additional ownership unbundling in the form of a share split could also be considered. As well, it is important to introduce pipeline access tariffs and market-based congestion management rules that guarantee fair pipeline access to different gas sources.

Despite its shale gas resources, China's gas import dependency is expected to increase. While LNG provides a major supply diversification source for China, and LNG import infrastructure is developing rapidly, there are still various infrastructure bottlenecks between the LNG import terminals and inland consumption centres. Also, gas storage appears to be insufficient given the potential for increasing gas demand in Northern China for heating in winter.

In this regard, providing adequate incentives for pipeline development with special focus on pipelines linking consumption centres to various gas entry points such as LNG receiving terminals in the coastal area, as well as Turkmen gas from the North West, while ensuring the timely roll out of gas storage, is highly recommendable.

Pillar 2: Improving energy security and diversification

China is an important producer of oil and natural gas. In 2013, China's crude oil production exceeded 4.2 million barrels per day (mb/d). However, with strong and sustained economic growth, its demand for oil has also increased, from 4.6 mb/d in 2000 to some 10.1 mb/d in 2013. Overall demand is expected to continue increasing. Although China is the world's fourth-largest oil producer, the country has been a net oil importer since 1993. In 2014, China imported nearly 60% of its total demand. Around 50% of its total crude oil imports came from the countries of the Middle East.³³

To be prepared for a potential oil supply disruption, China has been steadily building oil stock reserves. Four stockpiling facilities with a capacity of around 103 million barrels were completed in the first phase of its Strategic Petroleum Reserve (SPR) plan, and the second phase of construction has started. When the third phase is completed by 2020, the country expects to boost its SPR capacity to approximately 500 million barrels. Given that IEA member countries are obliged to hold emergency oil stocks equivalent to 90 days of the previous year's net imports, the IEA welcomes China's move in the same direction in recent years to establish a substantial oil stockpile.

³³ IEA (2015) Medium-Term Oil Market Report. International Energy Agency: Paris.

While building the SPR, the government has also encouraged domestic oil companies to increase their commercial reserves in order to enhance resilience. In January 2015, the National Development and Reform Commission (NDRC) started to oblige refineries to hold at least 15 days of crude oil reserves based on daily processing capacity.³⁴ Recent NDRC guidance on the operation and management of commercial crude oil inventories is also expected to contribute to improving data transparency, especially at the commercial inventory level. This will be important to broaden opportunities for further international co-operation in this area.

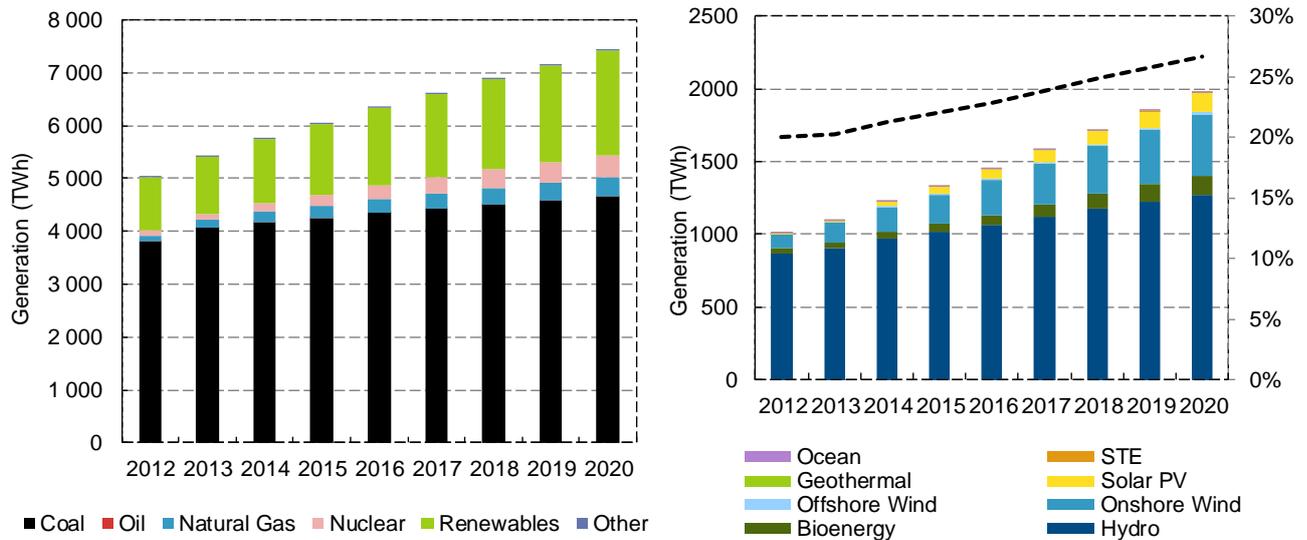
In order to further enhance China's preparedness for potential oil supply disruptions, it is essential to set up a decision-making procedure and mechanism for releasing emergency stocks well before any real emergency materialises. The IEA also attaches high importance to testing emergency response procedures through regular domestic emergency exercises in close co-operation with industry.

Currently, coal represents around two-thirds of primary energy supply in China. Although domestic coal is considered a secure source of energy supply, such high dependency is no longer sustainable due to its environmental and climate change implications. While the liberalisation of the coal sector came with a strong push to close small and inefficient coal-fired power plants, overall coal consumption in China is still increasing. In order to address the high level of coal dependency, China has already taken a comprehensive approach towards a balanced portfolio of low-carbon technologies, including all renewables and nuclear. China's effort in this regard is capable of increasing energy diversification while, at the same time, contributing to climate change mitigation and to the reduction of air and water pollution. China is encouraged to further accelerate such diversification from coal towards an energy mix to meet its environmental objectives and to enhance energy security. In addition, China should continue with its restructuring of the coal-mining industry in order to concentrate production into economically viable and safe modern mines.

Current and future efforts towards diversification of electricity mix in China are reflected in the WEO New Policy Scenario, which expects renewable electricity output (including large hydro) to triple between 2012 and 2040. Electricity generation from gas and nuclear grows by a factor of around ten, albeit from much lower starting levels. Renewable energy is one of the most promising low-carbon options deployed at a large scale in China, and it is an increasingly important part of the country's energy mix (Figure 2.14). The country has already become the world market leader in most renewable energy technologies and will remain so for the foreseeable future.

³⁴ NDRC (2015) NDRC's Guidance on the Operation and Management of Commercial Crude Oil Inventories. 26 January 2015. Available at www.ndrc.gov.cn/zcfb/zcfbtz/201501/t20150128_661767.html.

Figure 2.14 Renewable are becoming an increasingly important part of China's energy mix
Terawatt hours



Source: IEA, Renewables MTMR 2014.

Increasing the share of renewable energy has energy security benefits in terms of diversification, but it increases exposure to weather-related challenges for security of supply. While the seasonal variability of hydropower is well-understood and managed routinely, the shorter-term variability and uncertainty of wind power and solar photovoltaic (PV) are a novel challenge for energy security. Wind and solar outputs depend on the real-time availability of their primary energy resource. This makes their output variable over time. It is also not possible to perfectly predict resource availability. For a number of technical and economic reasons, the rapid build-out of wind and solar PV in China poses new challenges for system operation and grid development, as evidenced by issues observed in various parts of China. Delays in the connection of distant wind power plants and challenges with operating thermal power plants in a flexible manner are just two examples. Such challenges can be overcome, however, especially as they result more from management issues than from technical problems.

Recent IEA analysis indicates that integrating large shares of variable renewable energy in a secure and cost-efficient manner is possible with a system-wide approach that tackles grid integration. High shares of variable renewables require more flexible power systems. Electricity policy needs a planned and co-ordinated approach to ensure flexibility across the power system.³⁵

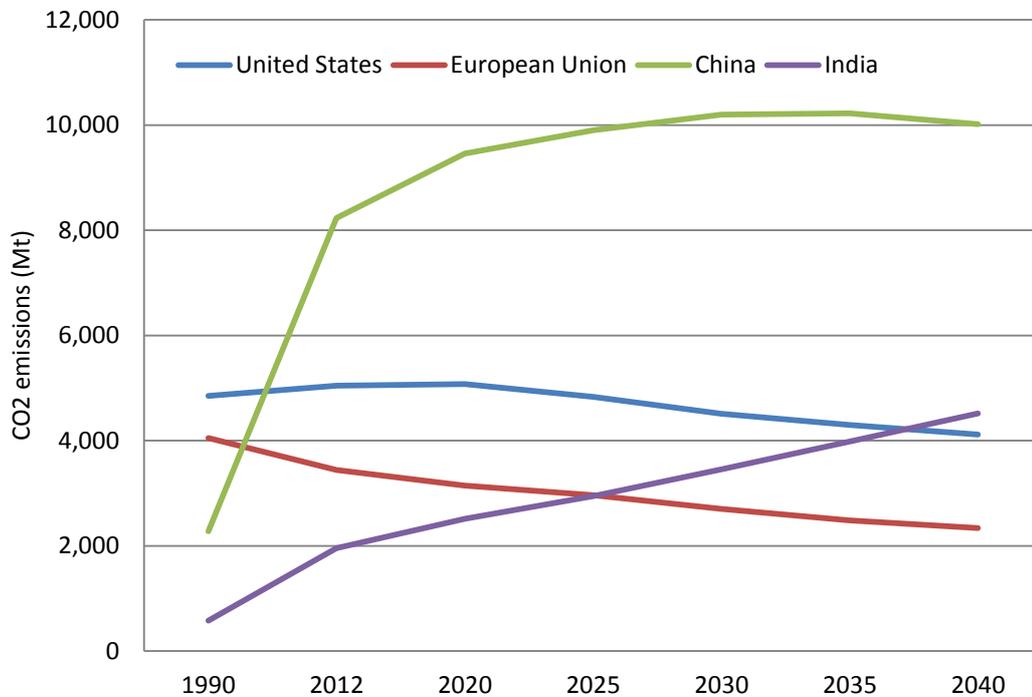
Pillar 3: Acting decisively on air pollutant and carbon emissions reduction

According to a government report issued by China's Ministry of Environmental Protection (MEP), only three out of 74 Chinese cities were able to meet the current air quality standards in 2013, and air pollution was most severe in the Beijing-Tianjin-Hebei area. In 2008, China surpassed the United States as the largest emitter of carbon dioxide (CO₂). China accounted for 26% of global CO₂ emissions in 2012, while its emissions are not currently projected to peak until around the 2030s, at over 10,000 million tonnes per year, or more than twice the United States 2012 level (Figure 2.15). It

³⁵ IEA (2014) *The Power of Transformation: Wind, Sun and the Economics of Flexible Power Systems*. International Energy Agency: Paris.

is projected to overtake the European Union (EU) in the 2030s in terms of historical CO₂ emissions, based on currently adopted and planned policies, and should approach the level of the United States around 2040. At the same time, the world's changing climate necessitates decisive action by all global actors to contain the rise in temperatures to the agreed goal of 2°C.

Figure 2.15 China's carbon emissions expected to peak around the 2030's
Millions of tonnes of CO₂ per annum



Note: This is based on the New Policies Scenario of the IEA's *World Energy Outlook 2014*, which incorporates a lot of recent commitments, but not those included in the US-China statement on climate change that was released in November 2014.

Air pollution involves a complex mixture of small and large particles of varying origin. The composition of PM_{2.5}, the main indicator of smog formation, is relatively complex and there is currently no national inventory. According to a study led by Natural Resources Defence Council (NRDC) China, coal combustion accounts for 50-60% of PM_{2.5} Emissions in China. In comparison, the IEA reports that coal represents 82% of national carbon emissions in China. Not surprisingly, the future of coal will have a major influence on China's ability to control air pollution and carbon emissions.³⁶

Over the past 10 years, the average efficiency of China's coal-fired fleet has been steadily rising. With new capacity mandated to comprise supercritical units (unless used for cogeneration), an active programme to improve the performance of the existing fleet and a policy of retiring older, inefficient capacity, China is providing a positive example to other countries that rely on coal-fired power generation.

³⁶ IEA (2014) Emissions Reduction through Upgrade of Coal-Fired Power Plant: Learning from Chinese Experience, OECD/IEA, Partner Country Series Report, June 2014.

The IEA carried out a project to examine the potential to improve the performance of existing coal-fired plants. Two power units in China were selected to showcase measures that would improve their net efficiency. The results built on the efficiency gains made under China's national energy efficiency improvement programme and demonstrated the enormous potential to improve performance, with each percentage point increase capable of reducing CO₂ emissions by many millions of tonnes over a unit's operational lifetime. Lessons learned in China can be applied to improving coal-fired power plant efficiency worldwide.

China implemented relatively strict emission standards on SO₂, NO_x and particulates for power plants that are comparable to the standards in force in Europe and North America. Massive investments are taking place to upgrade power plants with modern environmental controls. The enforcement of already enacted environmental legislation is improving but is still not universal. With a significant reliance on coal for power generation and large carbon-intensive process industries, China has significant potential to effectively use carbon capture and storage technologies. CCS offers the opportunity for China to reduce its CO₂ emissions while still utilising its extensive domestic coal reserves. Where relevant, CCS can also be coupled with CO₂ utilisation.

In recent years, China has developed CCS technologies under various R&D programmes and has gained significant experience, becoming one of the leading CCS countries. CCS cannot be widely deployed until it is known where the CO₂ will be stored in the subsurface. Therefore, exploring and developing storage capacity should be a priority.

Furthermore, ensuring that new coal-using infrastructure is CCS-ready is of critical importance in the period to 2020 and is readily achievable. China has a large fleet of existing coal-fired power stations, the majority of which are still young. The option of retrofitting these assets with CCS could be highly valuable to avoid their early retirement in an increasingly carbon-constrained world.

As the world's largest energy consumer, China is also home to one of the most active energy efficiency service and investment markets in the world. China's demand for energy efficiency services and investment is driven to a large extent by the government's strong and comprehensive energy conservation policies and programmes. Government policies include a variety of administrative programmes, such as mandatory energy savings agreements with all large and medium-sized enterprises. China's energy performance contracting project investments surpassed USD 12 billion in 2013³⁷.

Great potential exists for energy savings across all sectors and fuels in China, despite steady investment in energy efficiency in recent years. An analysis of China's technical energy efficiency potential estimates that making large improvements can continue. By 2030, 45 EJ of energy efficiency savings could be achieved with strengthened minimum energy performance requirements for buildings, vehicles and equipment as well as a more efficient use of fuels in industry and improved public transport. Because of its size relative to other energy-using sectors, the vast majority of these savings are in industry. The implied benefits for air pollution mitigation and carbon emissions reduction are significant.

³⁷ IEA (2014) Energy Efficiency Market Report 2014. International Energy Agency: Paris.

While meeting challenges where innovation, energy and climate change mitigation intersect, there is an opportunity to strengthen and expand China's economy by improving industrial efficiency and supporting technology transformation, not only domestically but also globally. Ambitious efforts to meet long-term climate targets at an accelerated pace can bring first-mover advantages in globally competitive innovation environment.³⁸

Pillar 4: Further strengthen international cooperation

Energy is a global issue; China's energy challenges cannot be addressed by China alone. All of the major challenges of China we have listed above require international co-operation and, in the same vein, more international co-operation will help China address its policy challenges more easily.

Detailed, complete, timely and reliable statistics are essential to monitor the energy situation at a country level as well as at an international level. Energy statistics on supply, trade, stocks, transformation and demand are indeed the basis for any sound energy policy decision. There is no one miracle solution to improve data quality, coverage and timeliness; a proper level of resources and strengthened expertise together with a strong political will are the basis for policy makers to have all the necessary data and information for optimising their decision process. As a consequence, it is clear that statistics and statisticians should be fully integrated into the energy policy decision-making process of a country.

China's recent progress in energy data and statistics is a leading example for others across the world. The National Bureau of Statistics (NBS) has been very active in co-operating with the IEA Energy Data Centre, and Chinese energy data and statistics have been substantively improved both in coverage and in timeliness in recent years. However, some issues must still be resolved to bring China's energy data and statistics to the level of the IEA standard, and it is hoped that further efforts and resources will be given to this important area of work. In particular, special attention should be given to increasing transparency on oil, gas and coal stocks data.

China has more to gain than lose if it becomes more active in learning global best practices and in sharing Chinese experiences with the world. The IEA and China have a two-year joint work programme, which has been renewed and agreed at the IEA Ministerial meeting every two years, covering all major energy areas comprehensively. Chinese officials and academics often visit the IEA, and China is one of the most frequently visited countries by IEA staff. China is also a member of 19 IEA Technology Collaboration Networks (so-called Implementing Agreements). China and the IEA are discussing how to expand their relationship to reflect the important role that China plays in global energy issues.

China would also benefit greatly from participating more actively in major energy-related meetings and conferences. As China is such a decisively large energy importer and consumer, the country has a high stake, and should be more vocal, in securing free and transparent energy markets and trade. More international co-operation in energy would also enable China to have better access to and insights into technology, information and international best practices.

³⁸ IEA (forthcoming) Energy Technology Perspective 2015. International Energy Agency: Paris

Key recommendations

- Encourage firm-level innovation through reforms that increase intellectual property rights and competition in markets dominated by SOEs, thereby enhancing China's ability to move up the value chain.
- Increase public funding for basic research. Support private sector investment in innovation, including through the development and effective enforcement of the intellectual property rights regime.
- To improve long-term productivity and ease resource constraints, China should further strengthen its agriculture innovation system, from research and development to farm extension services.
- Boost public spending on education and open up public schools to all children, and improve the vocational training system.
- Continue moving towards a market-determined exchange rate and developing local currency markets.
- Continue capital account liberalisation, as required by China's increasing role in international capital markets, but paying attention to the need for careful sequencing.
- Increase the transparency and predictability of the framework for both inward and outward FDI.
- Prioritise the easing of restrictions on foreign entry to services sectors and address sector-specific barriers to competition (e.g. in network industries).
- Fully implement measures agreed to in the WTO Trade Facilitation Agreement (TFA) and continue efforts to facilitate better integration into new and existing GVCs. Focus on information availability, simplification and harmonisation of documents, automation, and streamlining of procedures.
- Pursue domestic reforms that support integration into regional agreements.
- Improve labour mobility, including through reforms that give migrant workers access to public services in all cities, so that demands for wage increases are remain moderate.
- Promote market-oriented energy sector reform in China, including by unbundling the electricity sector to create a wholesale market and by ensuring that in the gas sector, independent producers and new entrants can gain access to resources and pipelines in a competitive and non-discriminatory manner.
- Enhance national energy security by improving emergency response capacity and accelerating diversification of energy supply, including by appropriately integrating renewable energy sources into the electricity grid.
- Act decisively to reduce air pollution and carbon emissions by further improving the efficiency of coal-fired plants and supporting energy technology innovation.
- Improve transparency and quality of energy data and statistics in accordance with established international standards such as those of the IEA. Consider sharing Chinese data (such as oil and coal stock data) more widely with international partners.

Chapter 3. Creating a policy framework for a stronger and better-functioning market-based economy

3.1 Setting the scene

Responding to the dynamic global environment, supporting a knowledge-driven economy and ultimately moving up the value chain will require a broad array of reforms that allow the market to play a more prominent role in the economy. There is also a need for more comprehensive reforms that foster the framework conditions necessary for a thriving private sector. Such important domestic reforms can thus have a double-dividend: improving the efficiency and potential growth rate of the economy while making China competitive higher up the value chain, both in terms of price and in terms of meeting higher labour and environmental standards.

For example, promoting competition that is vigorous but fair (sections 3.2 and 3.3) and supporting entrepreneurship (section 3.4) are important to support innovation (section 2.5). Similarly, reinforcing the efficiency and stability of the financial system (section 3.5) and enhancing corporate governance (section 3.6) are key to addressing the shifting patterns in global financial markets (section 2.2). An approved corporate governance framework and efforts to combat business bribery (section 3.7) will help improve the business environment generally, particularly in terms of boosting investor confidence, which will in turn cement China's attractiveness as a destination for FDI (section 2.3) and its ability to successfully integrate into GVCs (section 2.4). More generally, moving up the value chain requires a ready supply of human resources with the appropriate skill-sets (section 3.8). This chapter makes recommendations on improving the policy framework in these areas, while chapter 4 will focus on the institutional changes needed to support policy implementation.

The Third Plenum of the Chinese Communist Party in November 2013 – the first one since the *début* of the new government led by President Xi and Premier Li – attached great importance to letting the market play a greater role in the Chinese economy to double the country's *per capita* income for both urban and rural residents by 2020. Striking the right balance between market and government calls for retaining the important functions of government, such as the provision of personal security, property rights and a social safety net, correcting for market failures and safeguarding the rule of law, while gradually retreating from functions that can be more appropriately taken over by the private sector. Allowing the market to play a more prominent role in the economy, however, needs to be preceded by setting the framework in which firms compete on a level playing field paying due regard to consumer interests, occupational health and safety, environmental protection, and public security.

Important distortions remain in factor markets

Currently, the role of market forces differs greatly across the Chinese economy. Distortions in factor markets often resulted from government intervention to address market failures during the transition from a centrally-planned to a market-based economy. They act as subsidies, raising corporate profits and the competitiveness of exports. The prices of energy (see section 2.6), capital (see section 3.5) and land (see section 3.2 of the companion report *All on Board: Making Inclusive Growth Happen in China*) do not reflect the true social and environmental cost of production, making for a widespread misallocation of resources. Misallocation has been exacerbated by local authorities' seeking growth at all costs, leading to distorting market signals such as offering low-cost or free land, cheap credit, tax concessions and other subsidies to attract investment. Going forward, the major challenge is to make factor markets more efficient in support of strong, inclusive growth over the

long-term. Higher efficiency can be achieved by allowing greater market access and moving towards more market-based pricing mechanisms. Land prices (see section 3.2 of the companion report *All on Board: Making Inclusive Growth Happen in China*) are now determined in negotiations between developers and local governments, and auctions for commercial and residential land development, which are more transparent and allow local governments to reap the benefits of urbanisation. Industrial land, however, is not subject to such market-based price determination and land-use fees are a fraction of the costs that would be apparent through market-based price determination.

Recent reforms which strengthen rural land-use rights and ease the reallocation of land resources could be further strengthened by: providing rural households with certificates detailing their land rights; establishing transparent exchange platforms for the transfer of rights for rural farmland and construction land; increasing the duration of the right to rural farmland, with contracts automatically renewable upon expiration; and universally introducing resident permits for migrant workers that provide access to public services, while protecting land entitlements at their origin.

Barriers on labour mobility, stemming mainly from the *hukou* system, have eased in the recent decade or so, and in July 2014 the State Council announced a further round of reforms under the National Urbanisation Plan 2014-20 that will see a further reduction in restrictions on migration to smaller urban areas. Notwithstanding these changes, the *hukou* system continues to prevent labour from moving to where it would be valued most, thereby reducing overall economic efficiency. At the same time, the system allows firms to economise on the social welfare contributions for migrant workers, thereby keeping labour costs low. The expected new urbanisation wave should see the lifting of many of the remaining restrictions on people's permanent migration, but criteria to obtain permits to live in the largest cities are set to remain stringent (see also section 3.8 as well as section 3.2 of the companion report *All on Board: Making Inclusive Growth Happen in China*).

While market principles seem more potent in product than in factor markets, there is room to improve the way market forces operate in both.

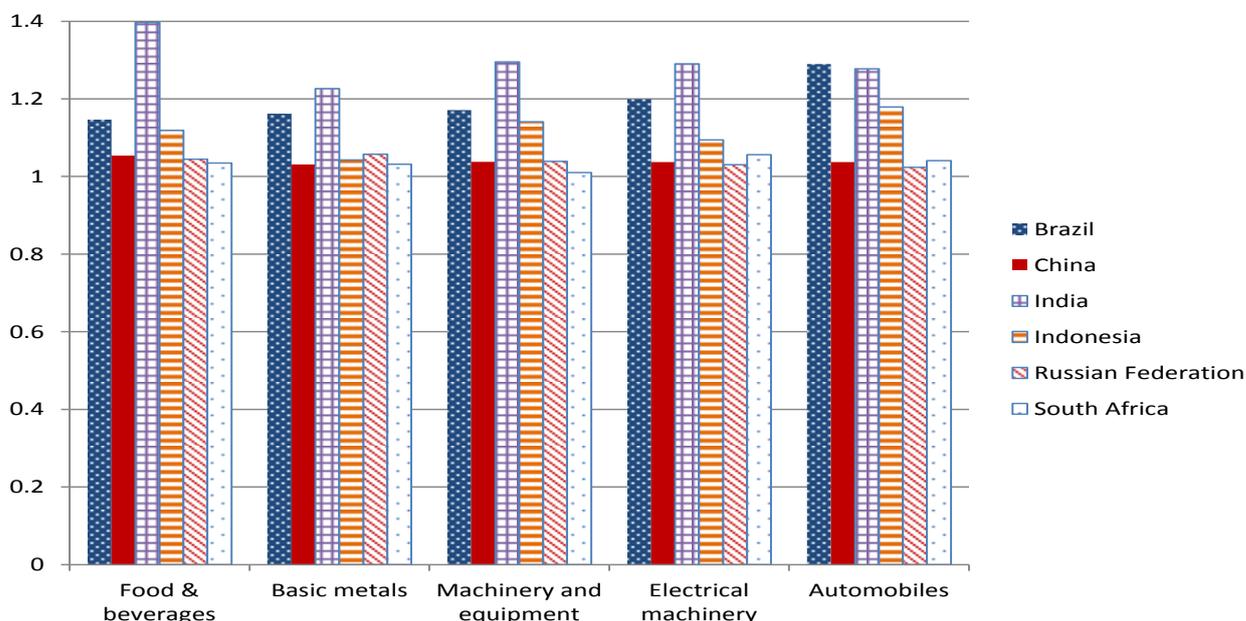
3.2 Fostering growth by making regulation more conducive to competition

Market forces play a greater role in product markets but there are large variations across sectors

Market distortions and restrictions are not confined to factor markets. In China, like in many other countries, there are many cases of over- or under-regulation and the extent of competition/industry structures varies from monopolies/oligopolies, with one or a few competitors in some markets, to unfettered competition among scattered producers in others. Conversely, competition is fierce in most manufacturing industries (Figure 3.1) and some services sectors such as retail and land transportation (see section 2.4 for detailed discussion on China's ranking in the OECD's Services Trade Restrictiveness Index, for example). Rather than gaining advantage by innovating, many producers engage in cut-throat price competition, thereby endangering product quality and safety,

by resorting to counterfeiting and ignoring product safety regulations.³⁹ The establishment and enforcement of standards alongside efforts to raise consumer awareness and enhance consumer protection would help promote fair competition (see section 3.3 on consumer protection).

Figure 3.1 Mark-ups are lower in many manufacturing industries than in other BRICS economies
Margin over average cost



Note: Mark-ups are estimated over average costs and expressed as a ratio. Roger’s method was used for the estimation.

Source: Authors' estimation using firm-level data of around one million firms from national manufacturing databases in Brazil, China, India, Indonesia and South Africa and from the ORBIS database for the Russian Federation.

China could strengthen growth by streamlining its product market regulations (PMR). Within companies, competition is a disciplining device which puts pressure on managers to become more efficient (the so-called “within-firm” effect). In addition, highly competitive markets do not tolerate inefficient firms: they drive them out and replace them with better, more efficient firms. This “across-firm” effect ensures that higher productivity firms will increase their market share at the expense of less productive firms, thereby raising the sector’s aggregate productivity.

Letting the market play a greater role in the economy, as envisaged at the Third Plenum in November 2013, would entail less State involvement in business operations and greater market access. On the basis of the product market regulation indicators developed by the OECD, four reform areas stand out: price controls, command-type regulations, administrative burdens and foreign market entry. As

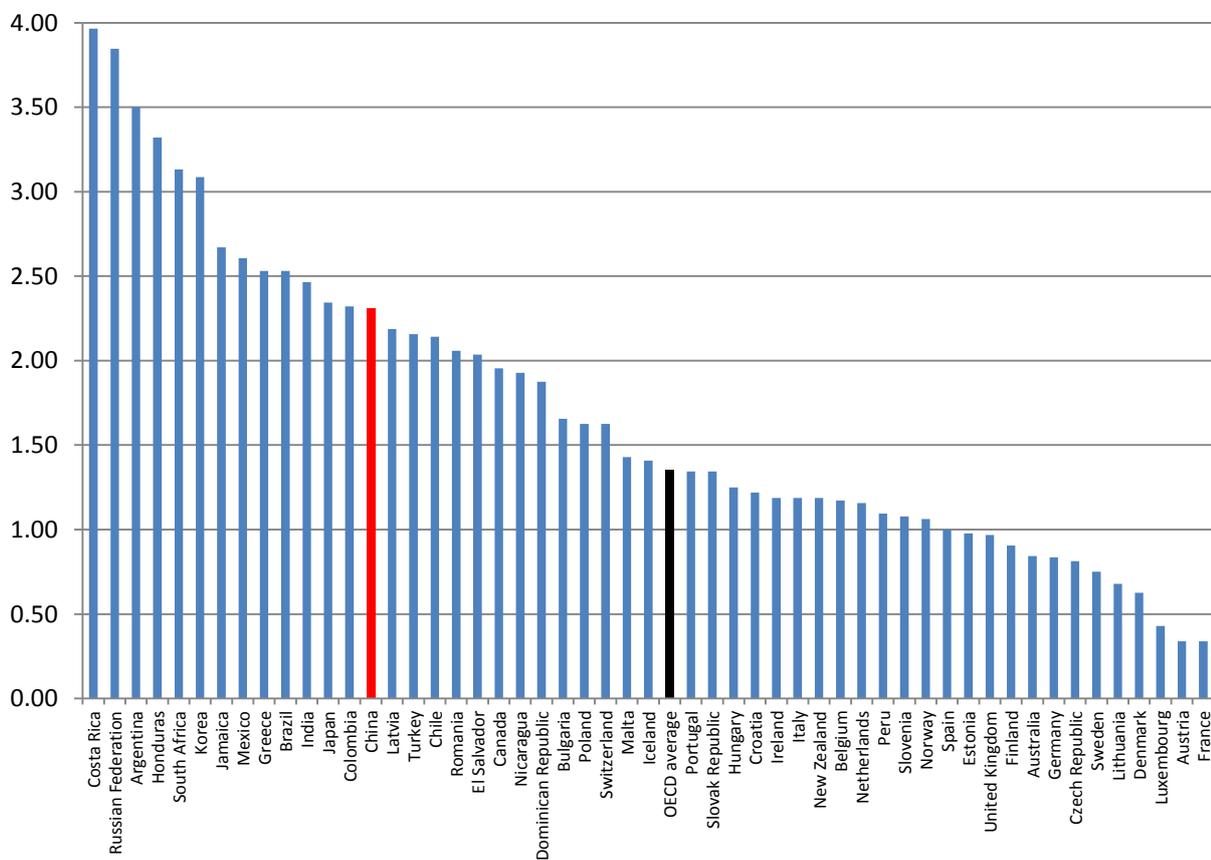
³⁹ Disorderly competition is an issue in the trucking business for example, where truck drivers regularly ignore red lights at night as they are under pressure to deliver as much and as fast as possible, thereby causing accidents. Fair competition can similarly be stimulated by a more stringent enforcement of truck standards and weight limits and the requirement of a trucking licence. In new industries, such as auctioning, the lack of regulation or its enforcement has led to abuse. Auctioning fees are calculated as a percentage of the estimated value of the good to be auctioned, with the estimation done by the auction house and the fee retained even if the commissioned good fails to be sold, leaving the seller short-changed.

well as having an appropriate legal framework, however, it is essential that this is matched by sufficient institutional capacity for, and commitment to, enforcement (see section 4.2 on strengthening the State’s regulatory capacity).

State involvement in business operations should be reformed to encourage healthy competition while ensuring quality

State involvement in various aspects of business operations appears widespread and takes the form of *inter alia* price controls (Figure 3.3), and command and control regulation. Most professional service providers, such as accountants, architects, engineers and legal service providers, are subject to more stringent controls of prices and fees than not only providers in OECD countries, but also in other emerging-market economies for which the comparable PMR indicator is available. Strict price controls also persist in some network industries, such as road transport.

Figure 3.2 Price controls are widespread in China
Product market regulation indicator, 2013



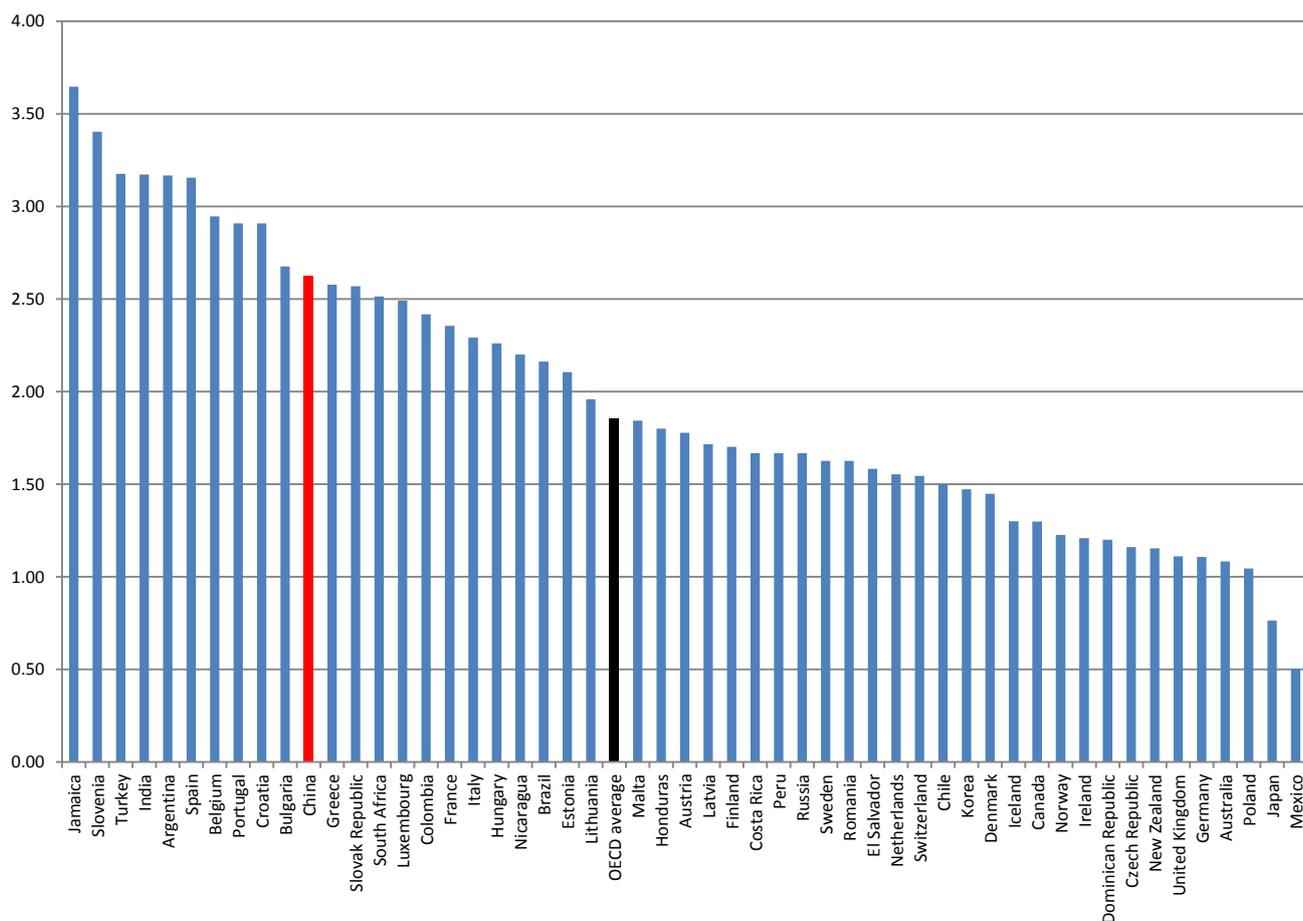
Note: The PMR sub-indicator of price controls reflects the extent and type of price controls in eight sectors. The values of the indicator range between 0 and 6, with higher values indicating more stringent regulation. The reported indicators for Brazil, China, India, Mexico, Poland, the Russian Federation and Turkey are based on preliminary estimates as some of the underlying data has not been validated with national authorities. Subsequent data revision may lead to revisions to the indicators for these countries.

Source: OECD (2013) Product Market Regulation Database.

The State not only excessively controls prices, but to a great extent it also uses administrative – as opposed to incentive-based – regulation (Figure 3.3). Advertising is strictly controlled in architecture and engineering services. Advertising is sometimes prohibited on the grounds that it distorts consumer choice in conditions where consumers have difficulties selecting a provider owing to the

specific nature of professional services. Evidence, however, shows that restrictions on advertising increase the fees charged for professional services. Partnerships, associations and joint ventures with other professions are not allowed in accounting, engineering and architecture services, which may limit synergies stemming from the bundling of services. Airlines, although not otherwise heavily regulated, are subject to universal service requirements, and these requirements put restrictions on their ability to exit particular activities or routes. To make regulation more efficient, in many countries regulators are required to assess alternative policy instruments (regulatory and non-regulatory) before adopting new regulation.

Figure 3.3 Command-type regulation is more common in China than in many OECD countries
Product market regulation indicator, 2013



Note: The PMR sub-indicator of command-type regulation covers various regulations of coercive type such as shop opening hours, universal service provision, backhauling, intermodal operations, advertising and restrictions on the legal form of business in eight sectors. The values of the indicator range between 0 and 6, with higher values indicating more stringent regulation. The reported indicators for Brazil, China, India, Mexico, Poland, the Russian Federation and Turkey are based on preliminary estimates as some of the underlying data has not been validated with national authorities. Subsequent data revision may lead to revisions to the indicators for these countries.

Source: OECD (2013) Product Market Regulation Database.

Education requirements to provide accounting and legal services are lower in China than in most OECD countries, where at least a university degree is required to provide those services. Some qualification-related entry rules may be legitimate and even efficient in order for consumers to obtain low-cost assurance about the competence of service providers.

Market distortions pose a particular challenge in the agricultural sector

China ranks first in worldwide farm production, producing about three-fourths of the combined total value of production of all OECD member countries. Growing demand for food due to fast income growth combined with rapid urbanisation exerts mounting pressures on the natural resources used for farm production. While feeding almost 20% of the world's population, China has only 7% of the world's potable water and 10% of the world's agricultural land. Agriculture remains a key sector in China, with a share of total employment at 31.4% in 2013, contributing 10% of GDP. China has become a large net importer of agro-food products, in particular of soybeans, cotton, edible oils and sugar.

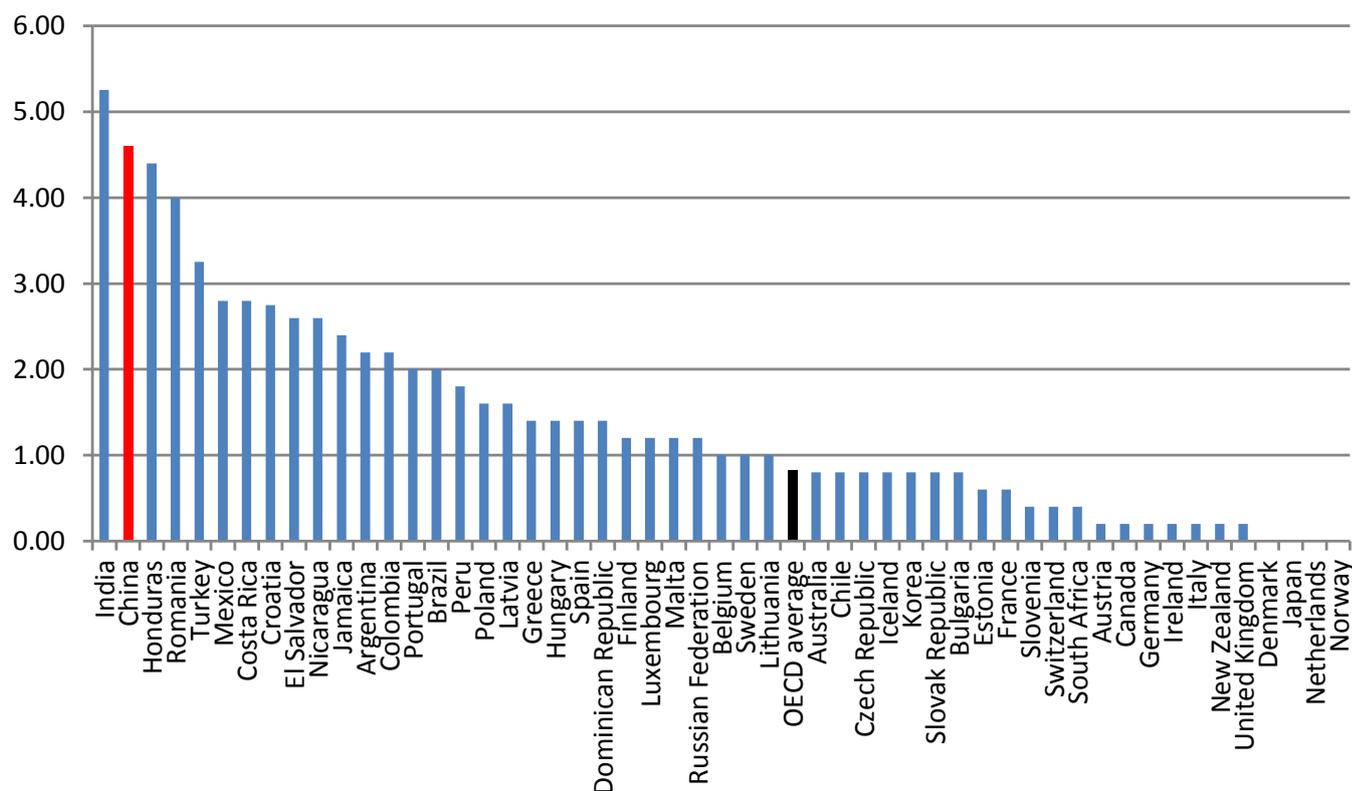
China's support to agricultural producers continues to grow and has reached the OECD average in recent years. Rising minimum purchase prices for rice, wheat and an increasing range of other commodities covered by market interventions, along with falling prices on international markets, are major factors explaining why consumers are increasingly being implicitly taxed by paying higher than world market prices. The trend of rising levels of farm support has been further accentuated by growing budgetary transfers, and the continued appreciation of the Chinese Yuan. In addition, China has become a net importer for a growing array of commodities, which are subject to import tariffs and other trade measures which raise the level of domestic prices.

Recent policy reforms to replace intervention prices for cotton and soybeans by target prices, combined with compensatory payments, is a step in the right direction. If successfully implemented, this reform could be extended to other commodities. In future, the link between compensatory payments and production decisions should be further removed by providing them on a historical production basis, for example, and 'greened' by making them conditional on environmentally friendly cultivation practices.

Easing restrictions on business establishment and market entry restrictions to some sectors would enhance the role of the market

Greater market access - by opening up previously restricted sectors to private and foreign participation - will allow market forces to play a greater role in the economy and encourage entrepreneurship. The administrative burden on start-ups, and in particular on sole proprietor firms, is very high in China (Figure 3.4). This not only hinders entrepreneurship but also inhibits employment creation, especially for young graduates who would be more likely to choose this form of starting a business had the process been less costly or more straight-forward. The recent announcement of the removal of more than 200 administrative measures that now apply to business operations is most welcome in this regard.

Figure 3.4 The administrative burden on sole proprietorship start-ups is prohibitively high
Product market regulation indicator, 2013



Note: The PMR sub-indicator of administrative burden on sole proprietor start-ups covers the number of procedures and bodies, the length of time required and the costs of the pre-registration and registration processes as well as minimum capital requirements. The values of the indicator range between 0 and 6, with higher values indicating more stringent regulation. The reported indicators for Brazil, China, India, Mexico, Poland, the Russian Federation and Turkey are based on preliminary estimates as some of the underlying data has not been validated with national authorities. Subsequent data revision may lead to revisions to the indicators for these countries.

Source: OECD (2013) Product Market Regulation Database.

Opening up network sectors to both foreign and domestic competition

Restrictions on foreign entry into several sectors limit opportunities for the transfer of foreign knowledge and management practices (Figure 2.4). Moreover, foreign direct investment is particularly important to inject competitive pressures in non-manufacturing markets sheltered from cross-border trade, potentially giving rise to economy-wide productivity gains as available inputs become better and less expensive. Many restrictions arise from the need to gain approval for investment projects from the NDRC, either at the local or national level (see section 2.3). Other barriers include the inability of private companies, be they domestic or foreign, to enter certain sectors, and the need for foreign firms to have domestic partners in certain sectors.

Network industries have high entry barriers and regulated prices. Securing non-discriminatory third-party access to the networks is therefore a crucial step to induce competition in the competitive segments of network industries. Introducing competition into, for instance, the energy sector and shifting towards retail prices that reflect the actual costs of generating, transmitting and distributing electricity, as well as incorporating the environmental costs of carbon-generated energy, are important ways to enhance efficiency. Greater competition, however, would squeeze incumbents'

profit margins and more market-based pricing would raise costs for beneficiaries of cheap energy. Energy reforms will therefore likely face resistance. On the other hand, the improvements in environmental sustainability could be considerable.

In most countries, non-discriminatory access has been sought by separation of the network segment from other components and regulation of access charges. However, the extent of separation of vertically-integrated companies has differed across countries. Accounting separation has been the most common, making cost information readily available for the setting of non-discriminatory access prices. However, this type of separation may not be sufficient to ensure non-discriminatory access for two reasons. One is that the regulator and the incumbent are privy to varying levels of information; the other is the lack of capital accounting for government-owned incumbents (*e.g.* France, Japan and Norway). Management separation has provided a stronger distinction between units and legal separation creates a distinction between companies, but only ownership separation can ensure that the natural monopoly network segment no longer has incentives to favour its affiliates over alternative providers.

3.3 Supporting effective implementation of competition and consumer protection policies

Pro-competition regulatory reform should go hand-in-hand with a strengthening of the competition framework. Continuous efforts to improve the competition law environment in China, especially at local level, would help reach this policy goal. China's rapid reform path coupled with a challenging governance context has made it particularly difficult to address major bottlenecks to regulatory quality. Policy development and implementation is a major challenge in China, in large part because of weaknesses of the rule of law (see section 4.2), which has in turn fed corruption, financial speculation, and misallocation of resources. Often, access to government officials rather than market forces, is the key ingredient for firms to succeed. Moreover, rules and regulations are not always consistent or transparent, contracts are not easily enforced, intellectual property rights are insufficiently protected, and the judicial system lacks independence. China's high degree of administrative decentralisation, and the overlapping of regulatory responsibilities at national institutions, also pose challenges for the effectiveness of policy implementation.

Building the pillars of a "whole-of-government" regulatory policy approach

Chinese competition legislation is broadly compatible with anti-trust law in the European Union, the US and other OECD jurisdictions, especially in the areas of abuse of dominance and anti-competitive agreements between firms. However, it lacks the wherewithal, especially in the application of merger legislation, to use competition law to pursue industrial policy objectives⁴⁰. Moreover, a complex institutional set-up, involving multiple institutions at both national and local levels of government, makes it difficult to identify decision makers, and hence for companies to anticipate decisions.

Reducing regulatory fragmentation, for instance by clearly defining the competences of the different institutional actors in charge of enforcement and by increasing transparency in the decision-making process would support the modernisation of Chinese competition policy. This is all the more necessary as none of the three bodies that enforce aspects of competition law are independent from the government.

⁴⁰ Ha *et al.*, 2014; Mariniello, 2013.

Experience across OECD countries points to the need for a comprehensive approach to the development and implementation of regulatory policy that cuts across governmental portfolios. A key pillar of this approach is a specific institution responsible for the overall quality of regulation located as close as possible to the centre of government. This institution should be responsible for taking decisions and assessing the final trade-offs on policies and their legal implementation. China currently lacks such an institution, despite the many players involved in the preparation of laws and regulations. Such a role could conceivably be played by the Legislative Affairs Office of the State Council (LAO), by the NDRC, or by a new institution.

The overlap of powers among the levels of government is also detrimental to an efficient regulatory process. Laws and regulations sometimes go unenforced or are ignored by local government officials. An example is the lack of effective implementation of food safety regulations. A more rational distribution of regulatory powers among the various levels of subnational authorities would help to clarify the situation. In addition, greater awareness of regulatory quality among local authorities will be essential in light of their growing responsibilities.

Streamlining and strengthening the independence of China's competition policy framework

The status of Chinese regulators appears to be heterogeneous. Issues related to independence and trust in the capacity of regulators to guarantee market competition and fair access need particular attention. Several regulatory agencies were consolidated into a number of the “super” ministries (e.g. industry, energy, transportation, food and drug, and environmental protection). Procedures for consultation between regulators and the competition authority are neither systematic nor mandatory for all existing economic regulators. Perhaps an independent experts’ group could review the institutional architecture for market-oriented regulation and determine if a new harmonised framework would improve efficiency and competition in regulated areas of the economy. The OECD (2014e) comprehensively addresses best practices in this area in *The Governance of Regulators, OECD Best Practice Principles for Regulatory Policy*.

Another concern is the apparent interlocking of competition with other policy goals. Since 2008 MOFCOM has reviewed over 700 cases. A recent study suggests that Chinese merger control “aims to promote pro-domestic objectives,” which may be a result of the way the 2008 AML is formulated.⁴¹ The substantive tests used for mergers are quite broad in scope and include criteria beyond the potential negative impact for consumers, such as factors that would have a negative impact for ‘the national economic development’.⁴² In other words, national interest is one of the main elements to be considered when assessing the impact of a merger case (or an antitrust case for that matter) in China.⁴³ Out of the 21 prohibitions and non-conditional clearances that had taken place by August 2013, all involved foreign companies.⁴⁴ So far, the Chinese merger control regime has primarily applied behavioural remedies, thereby also avoiding potential international disagreements over global structural remedies. At the same time, the Chinese authorities have not shied away from imposing conditions for giving merging clearance that go beyond Chinese borders, for instance in the case of the merger of Baxter (USA, healthcare) and Gambro (France, medical technology), where MOFCOM allowed the merger subject to Baxter divesting its global Continuous Renal Replacement Therapy business.

⁴¹ Mariniello, 2013.

⁴² Ha *et al.*, 2014.

⁴³ Mariniello, 2013.

⁴⁴ Mariniello, 2013.

The preference for behavioural remedies (60% of all commitment decisions since 2008) may reflect the relative newness of competition enforcement in China. Behavioural remedies, although less easy to monitor, are relatively easy to impose compared with structural remedies. Their use signals that the authorities are serious about implementing competition law and demonstrate their willingness to instil a culture of competition promotion.⁴⁵ On the other hand, behavioural remedies also leave more leeway for intervention by the policy maker post-merger. For instance, in a 2012 merger between Henkel Hong Kong (Germany) and Tiande Chemical (China), MOFCOM set a price cap for the products of the new, merged entity. Usually, competition authorities aim to avoid having to intervene ex-post, as this sends ambiguous signals to the market. However, as in this case, the Chinese authorities occasionally use behavioural remedies to protect the competitors rather than protecting competition – indeed, “enhanced competitiveness” of the new merged entity was quoted by MOFCOM as a motivating factor in the Henkel-Tiande case.

Competition policy should also minimise the marketplace distortions that typically accompany government ownership, such as soft budget constraints and opportunities and incentives to confer preferential treatment. The best assurance of competitive neutrality in the treatment of SOEs is to keep anti-monopoly enforcement independent of the missions of industrial policy and promotion (see section 2.X on reforming SOEs). Providing several institutional means for enforcement, with different constituencies and priorities, might also reduce the risk that enforcement would pursue unrelated goals.

China conducts some *ex ante* regulatory impact assessments (RIAs) of new regulation, which do not appear to be coordinated or to systematically take into account the overall costs and benefits of regulations from a social and economic perspective. In order to ensure that a real impact analysis is conducted, RIAs need to be made part of the legal framework governing the preparation of regulations. To confine the RIAs to significant proposals (perhaps a hundred a year), and thereby maximise their impact, the relevant authority (as described in the previous paragraph) could define precise criteria for identifying regulations subject to the assessment requirement, and could have the power to demand a RIA in certain cases.

Administrative simplification is key to minimising the cost of regulation. China could consider the entire stock of existing regulations in order to reduce the cost overhang. Automatic sunset clauses are also an important tool that could be introduced in Chinese regulation. This would reverse the burden of proof and force the administration into a systematic review of regulations, under threat of their expiry at a certain date.

As national competition decisions increasingly have implications beyond national borders, and the operations of international cartels have national consequences, better methods of co-ordination between jurisdictions are needed. For China there is an advantage in being involved in this ongoing process, as jurisdictions from around the globe have started enhancing their co-operation. This may take the form of improved bilateral co-operation, for example to allow exchanges of confidential information between enforcers; or China could become involved in work to develop standards for legislative/regulatory frameworks that would enable sharing of information and include legislative protections for information received from counterpart regulators; or China could participate in the adoption of multi-lateral instruments that address the most pressing needs for co-operation relating, for example, to sharing information, merger notification, or convergence of leniency policies for cartel investigations.

⁴⁵ Mariniello, 2013 also makes this point.

Strengthening consumer protection

As mentioned above, intense competition in some sectors in China such as retail and land transportation has undermined product quality and safety. Financial institutions have also engaged in rapid innovation in recent years, launching savings and investment sophisticated products that are often not well understood by consumers (see Section 3.X). The government therefore needs to take further steps to promote consumer awareness. They also need to introduce complementary measures to ensure that consumers are treated fairly and are adequately protected from unsafe products and from misleading, deceptive, fraudulent and other unfair commercial practices.

The first Law for the Protection of Consumers Rights and Interests was adopted in 1993. The Law provided for strict liability for defective goods and services, regulated unfair contract terms and provided for punitive damages. While an important step towards protecting consumers, the Law was increasingly seen as not fully adapted to the challenges of a growing internal market⁴⁶. In part to respond to these perceived weaknesses, the government recently introduced a new Consumer Protection Law that provides a more comprehensive legislative framework for the protection of consumers. In particular, the Law strengthens penalties for fraud and false advertising, shifts the burden of proof for counterfeiting from consumers to retailers, facilitate the filing of class-action lawsuits by consumers, imposes the acceptance of returns of goods within seven days of purchase and introduces some restrictions on the collection of consumer data for e-commerce. These appear to be positive steps. Effective implementation of the law will be paramount to guarantee a real protection of consumers and avoid that provisions of the law are used in a discriminatory fashion or stifle competition. In this respect, particular attention should be devoted to strengthening the governance framework for the implementation of the law.

At the central level, the State Administration of Industry and Commerce (SAIC) is responsible for consumer protection, as well as many other aspects of market supervision including business registration, competition, marketing practices, advertising and trademarks. SAIC is directly under the State Council and has had ministerial status since 2001. While these governance arrangements provide SAIC with a strong position within the executive, they also limit its perceived independence vis-à-vis consumers and business. Entrusting the oversight of consumer protection to an independent regulatory authority could enhance trust in the law and facilitate compliance, helping avoid costly enforcement actions.

The governments at the provincial, prefecture and county levels are responsible for enforcing and monitoring the law. As individual complaints can be resolved through administrative investigations, these institutions can play an important role in avoiding the courts being overburdened with lengthy lawsuits. They can also play a key role in preventing fraud and counterfeiting through inspections and information campaigns. For example, they can publicise clear, quantifiable indicators against which compliance will be measured, and can be transparent about precisely how they will be measured. Making the results of inspections public can also be a powerful incentive for compliance, as it is likely to increase the reputation of business operators that have a high rating. This rating system can be effective if it is supervised by an independent authority that guarantees the system's objectivity and trustworthiness.⁴⁷

⁴⁶ OECD, 2009.

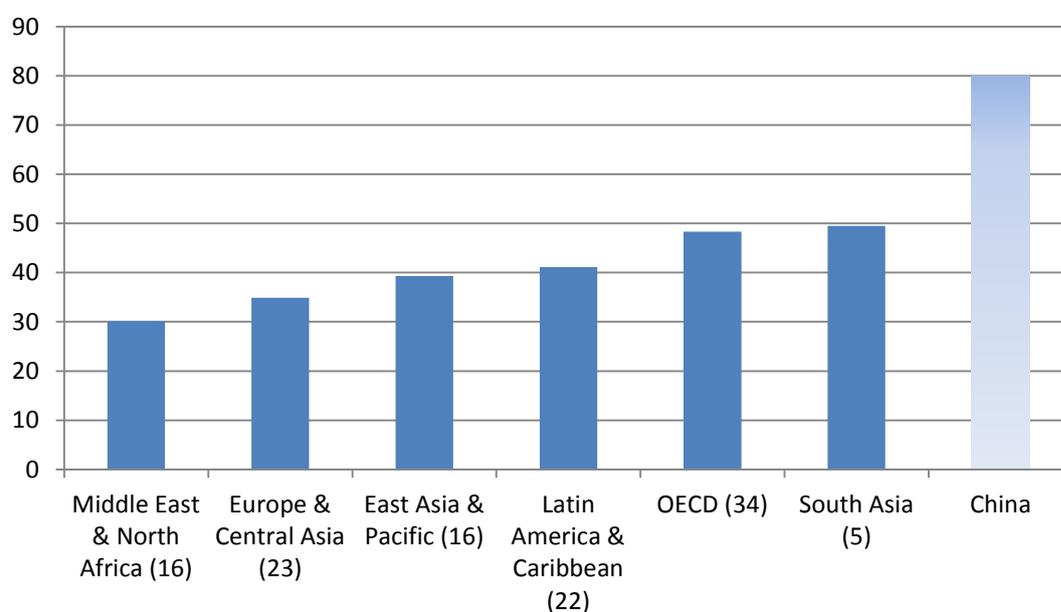
⁴⁷ OECD, 2014f.

3.4 Supporting SMEs and entrepreneurship

The contribution of small and medium-sized enterprises (SMEs)⁴⁸ and entrepreneurship to job creation is essential to underpin sustainable growth, social cohesion and the transition to a greener growth model over the long term. The role of policy, culture and institutions in shaping the entrepreneurial environment is widely acknowledged. Education and training, in particular, can promote an entrepreneurial culture at all levels and reduce barriers to the entrepreneurial activity of women and disadvantaged groups. In these respects, government policy will have an important role to play in fostering a dynamic SME sector as an integral part of efforts to promote a better-functioning market-based economy.

SMEs accounted for over 97% of all firms in China, and for 41% of total export values in 2012⁴⁹, and for 59% of GDP in 2011.⁵⁰ In China, micro, small and medium-size enterprises account for 80% of total employment (Figure 3.5), substantially more than the OECD average of 48%.⁵¹ In 2009, almost half of the SMEs in China were in the services sectors (49%⁵²), followed by wholesale, retail and catering (19%) and manufacturing and processing (19%).

Figure 3.5 SME employment as a percentage of total employment



Note: The numbers in brackets indicate the number of economies included in the regional classification. Most recent data available after year 2000. SMEs are defined as having less than 250 employees.

Source: OECD elaboration based on data from www.ifc.org/msmecountryindicators.

⁴⁸ SMEs are defined here as those firms with less than 250 employees.

⁴⁹ ADB-OECD, 2013:3.

⁵⁰ OECD, 2013b.

⁵¹ IFC, 2014.

⁵² Comprising Construction & Real Estate (3.7%), Health, Education and Social Services (23.9%), and Governments, Parties, Social and Community Organisations (20.2%). All sectors are defined as per the definition provided by the National Bureau of Statistics (albeit the NBS uses different definitions of what constitutes an SME by sector).

- The policy mix discussed in section 3.2 to reduce red tape and simplify regulation will particularly ease the burden on SME's who tend to suffer relatively more from such impediments. In addition, the following policies have proven effective in OECD countries in shaping attitudes towards entrepreneurship and improving the performance of new firms and SMEs and could be adapted to the Chinese context: Foster entrepreneurial education, by scaling up entrepreneurship education in schools, vocational education and universities, in order to reduce the skills mismatch between supply and demand in the labour market. Such policies should involve the private sector notably through partnerships with public authorities.⁵³
- Launch media campaigns and mentorship programmes to help develop entrepreneurial human capital.
- Promote female and youth entrepreneurship by specific programmes related to the creation and development of enterprises.⁵⁴
- Improve intellectual asset management by facilitating the provision of advisory services to SMEs and improving the intellectual property rights system to better reflect their needs, e.g. by improving patent quality and reducing costs of intellectual property procedures. China has already taken steps in this direction, adopting in 2008 a National Intellectual Property Strategy, with the purpose of achieving a high level of intellectual property production, use, management and protection by 2020.⁵⁵
- Support participation of SMEs in global value chains and clusters as well as their better integration in networks of enterprises, universities and other actors active in the fields of research, innovation and professional training (see section 2.5).
- Ensure that the consequences of fiscal measures on investment strategies in SMEs remain measured.⁵⁶

3.5 Reinforcing the efficiency and stability of the financial system

China's financial system is evolving very rapidly. In its modern form, it was created only a quarter of a century ago and has since suffered one major crisis that entailed extensive restructuring. Commercial bank assets have almost tripled since 2007 to the equivalent of more than 200% of GDP by end-2013 (Table 3.1). While this ratio is below the average for the OECD countries, it is significantly above the one for other major emerging-market economies⁵⁷. Domestic claims of depository institutions (comprising commercial banks, the central bank, and other banking institutions) have been increasing by over 42% of GDP between end-2008 and end-June 2014 when they are estimated to have reached over 170% of GDP.

⁵³ Finland conducted an educational reform whereby entrepreneurial education is mandatory in elementary and secondary school. (OECD/The European Commission, 2013).

⁵⁴ Canada has a SME financing initiative targeting young entrepreneurs. Mexico operates the "Young Entrepreneur Training Programme", which teaches about entrepreneurship through online and classroom activities for a total of 150 hours (OECD, 2013f).

⁵⁵ OECD, 2012.

⁵⁶ The case of Italy is an example of good practices in favouring fiscal treatment to innovative firms (OECD, forthcoming: *Italy: Key Issues and Policies*).

⁵⁷ OECD, 2014d.

Table 3.1 China's banking sector has grown strongly and remains well capitalised
Selected indicators of the banking sector

	2007	2008	2009	2010	2011	2012	2013
Banking institutions							
Total assets (RMB trn)	53.1	63.2	79.5	95.3	113.3	133.6	151.4
Total assets (% of GDP)	199.8	201.1	233.2	237.4	239.5	257.5	266.2
Commercial banks							
Total assets (RMB trn) ¹	41.0	47.8	61.5	74.2	88.4	104.6	117.4
Total assets (% of GDP)	154.2	152.3	180.4	184.7	186.9	201.5	206.4
Liquidity ratio	37.7	46.1	42.4	42.2	43.2	45.8	44.0
NPL ratio	6.1	2.4	1.6	1.1	1.0	1.0	1.0
Provisioning coverage ratio	41.4	116.6	153.2	217.7	278.1	295.5	282.7
Leverage ratio ^{1,2}	5.5	6.0	5.5	6.1	6.4	6.5	7.1
Capital adequacy ratio ³	11.4	12.2	12.7	13.3	12.2
Core capital adequacy ratio ⁴	9.2	10.1	10.2	10.6	10.0

Note: In per cent unless indicated otherwise.

1. The 2013 figure is based on OECD's estimations of rural commercial and foreign banks' total assets and liabilities.
2. Total owner's equity over total assets.
3. Net tier 1 capital over risk-weighted assets.
4. The data for 2013 is not fully comparable with previous years due to a change of methodology for calculation.

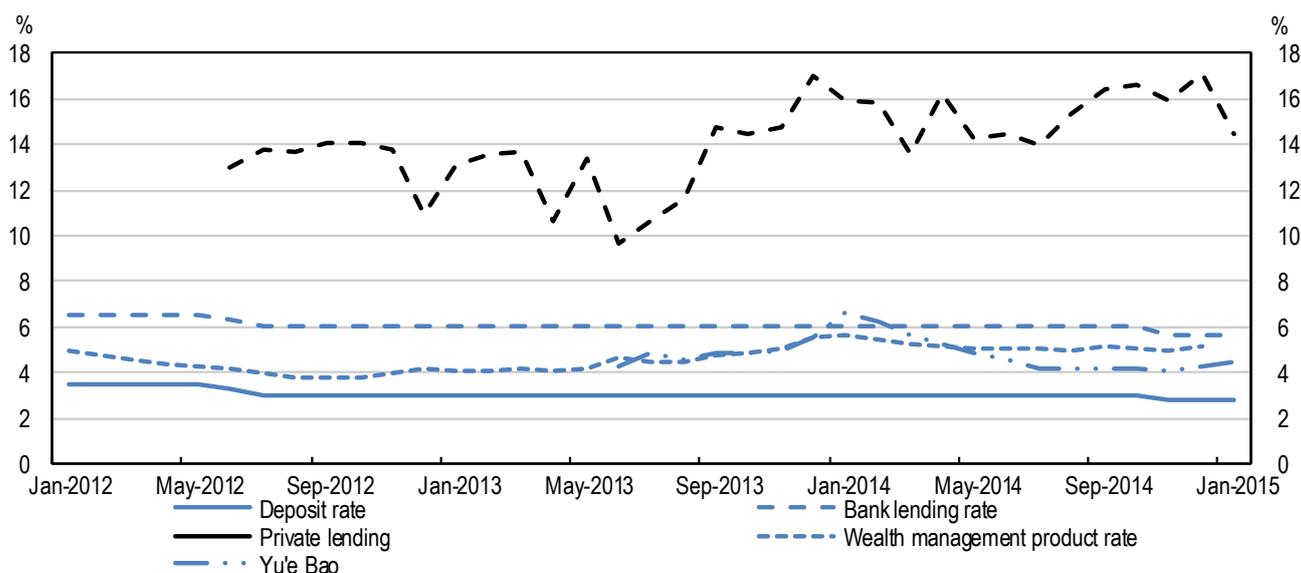
Source: OECD (2014a), based on China Banking Regulatory Commission (CBRC) and OECD estimates.

Remove financial market distortions to smooth allocation of resources

China's relatively low interest rates are a symptom of distortions in the market for capital. Notwithstanding rapid financial deepening during the past two decades and the creation of the various financial intermediaries, interest rates have long been subject to stringent regulation until recently, leading to the misallocation of resources. Unduly low interest rates have led to excess demand for loans and a prioritisation of lending to key industries and State-owned firms. Small private firms have generally faced higher capital costs.

Recently, however, there have been some welcome steps in the right direction. For example, most restrictions on lending rates have been lifted and a major commitment by the new government is to liberalise deposit rates within two years. Moreover, ongoing ‘grassroots’ liberalisation of interest rates has allowed savers to earn higher returns and risky borrowers to get access to funds (Figure 3.6). However, interconnections between high-yield investment products, major banks, subnational governments and State-owned firms along with repeated bailouts underpin the impression of implicit guarantees. Risk needs to be better reflected in the price of funding. Orderly defaults by failing borrowers would help sharpen risk perceptions and lead to more efficient resource allocation.

Figure 3.6 Regulated and market-based interest rates differ widely



Note: Deposit rate refers to households savings deposit rate over one year; lending rate over one year. Private lending rate refers to monthly average of private lending rates in Wenzhou. Wealth management product rate is the weighted average rate of return.

Source: CEIC.

Rapid financial deepening raises fears for financial stability

The rapid expansion of credit has raised concerns about deteriorating credit quality and risks for financial stability building up more generally. However, so far the formal commercial banking sector seems well capitalised, and it will be subject to more stringent capital and liquidity requirements than envisaged in Basel III. Non-performing loans are small and loss provisions are sizeable, suggesting that banks have large buffers to absorb losses in case of a negative shock. Nevertheless, some of the banking indicators may not adequately account for off-balance sheet exposures and several risks are present, in particular as the share of credit expansion taking place outside the regular banking sector has increased since 2011.

While financial intermediation is still largely bank-based, the non-bank sectors have developed rapidly (Figure 3.7) as market forces have been allowed to play a greater role in the financial sector (OECD, 2015). Estimates of the size of the shadow banking sector range widely, between 44% and 69% of GDP as of end-2012,⁵⁸ which is still relatively small compared with many advanced OECD countries.

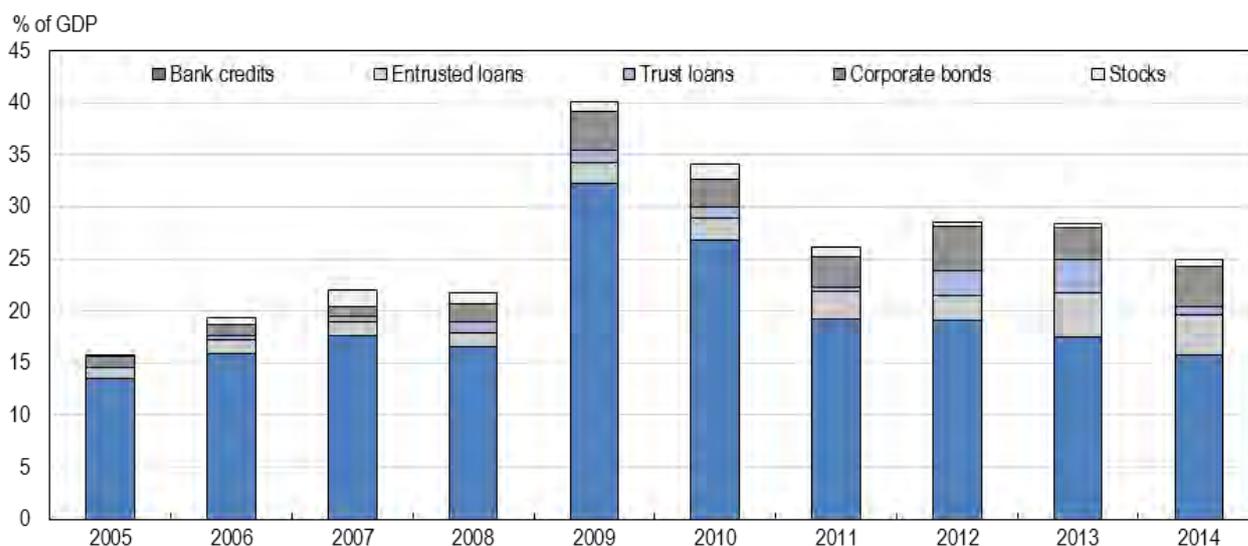
While a move from bank-based towards more diversified market-based financing is welcome, this shift is not without risks and necessitates an appropriate regulatory framework covering commercial banking, shadow banking and non-bank sectors alike. However, as regulations and restrictions in the banking and shadow banking sectors are not independent from each other, regulatory arbitrage also needs to be addressed (e.g. money market funds are not subject to the 20% reserve requirement ratio as banks are). Further curbing bank lending could potentially drive borrowers to the shadow banking sector. While strong growth in the shadow banking sector has fuelled a rise in house and other asset prices, the government has been taking steps to curb excessive credit growth (i.e. by making it harder for banks to move assets off their balance sheets and by raising money market borrowing costs), and lending growth has already slowed as a result.

Another problematic driver of shadow banking is that entities like trusts are benefitting from banks' and government's implicit guarantees in selling high yielding, risky products to mainly retail investors. While corporate bond failures (recently also in the Chinese domestic, rather than the off-shore market where this has previously been common) help to remove or lower such implicit guarantees, bailouts have so far continued in the retail lending sector to avoid bank (and shadow bank) runs with all the associated disruptive effects, at the cost of perpetuating incentives for moral hazard.

The government has announced that a deposit insurance scheme will be introduced in 2015, which is welcome. Along with predictable bankruptcy proceedings, this is a necessary element in moving towards greater financial liberalisation that should impose financial discipline on market participants while safeguarding the financial system from potentially unpredictable behaviour and risks, like a sudden withdrawal of banking and shadow banking investments and the ensuing liquidity crisis, and sudden re-pricing of credit risk and sharp decline in asset prices.

⁵⁸ OECD, 2014d.

Figure 3.7 While banks dominate credit creation, non-bank market shares are increasing
Social financing flows¹ by banks and non-banks, in per cent of GDP



1. Social financing is a broad measure of credit that includes, in addition to traditional bank credit, a range of other forms of credit, such as trust products, corporate bonds, and equity financing.
2. Including bank loans denominated in local and foreign currencies as well as bank's acceptance bills.
3. Business-to-business loans by bank intermediation.

Source: CEIC database.

Developing sound non-bank financing alternatives

While in China the stock of credit provided from outside the banking sector is still lower than in most developed countries, it is now well above that in other emerging-market economies. Among OECD countries, the Japanese and European economies are largely bank-financed (about two-thirds for the European Union), whereas the US economy relies largely on market based finance (about two-thirds). While the right balance between market and bank-based finance is a moot question, the 2008 financial crisis has shown that it is necessary to broaden the range of non-bank financing alternatives, especially in economies that have been heavily reliant on traditional bank finance, and where banks are reducing their lending as they need to deleverage. As options for capital market financing are more easily available to larger corporations, developing non-bank alternatives are particularly relevant for small business and consumers. This would also support efforts towards financial inclusion (see below).

Regarding SME financing instruments, such alternatives include mezzanine finance (hybrid between debt and equity) and new alternatives, such as crowd funding or peer-to-peer lending. Revitalising securitisation, which has been tarnished by the crisis, is among the most important elements in the effort to strengthen both bank and non-bank finance, with scope for tailoring to fit the financing needs of SMEs. For mid-sized companies, bonds and private placements may also provide useful alternative sources of funding. To support the development of such markets, some initial government support can be helpful, for instance by widening eligibility criteria for central bank collateral, enhancing transparency requirements (e.g. for loan level information), or through open market purchases of certain securities by central banks.

While bank and non-bank debt funding is important, for dynamic start-up companies equity finance is more suitable, given their risk characteristics. OECD policy makers have been concerned about a growing financing gap for high-growth firms, particularly in the seed and early stages. Supply-side policy interventions in terms of debt, tax incentives and equity funds have increased in the past five years in many OECD countries⁵⁹. Likewise, the support for grants, loans and/or guarantee schemes has increased during the crisis, as have other support measures. Regulatory and administrative frameworks as well as equity markets and corporate governance also play an important role in this context.

China's capital market: untapped potential

The demand for capital-raising and financing by companies⁶⁰ as well as the vast supply of domestic savings offer tremendous opportunities and potential to develop China's capital markets. In terms of corporate capital-raising, indirect financing - mostly from banks - remains dominant in China.⁶¹ In 2013, bank loans accounted for 61.5% of total financing, the bond market accounts for 10.8% and the equities market for only 1.3% (see Box 3.2 for data on listed companies and the OTC market). The remaining 26.3% was financed by the 'shadow banking' sector of entrusted loans and trust loans⁶².

Major outcomes of the Third and Fourth Plenums of the 18th Chinese Communist Party Central Committee were the recognition of the critical importance of capital market development and the rule of law for economic and social development in China. With deepening internationalization of China's economy, there has been a growing urgency for capital markets to increase efficiency of resource allocation through international and domestic markets in order to effectively manage various risks and respond to growing demand for capital.

While China's capital markets are still largely closed, there are encouraging signs. Capital markets have been evolving and growing towards a more even mix of investor classes, with institutions such as investment funds, pension funds, insurance companies, corporates, sovereign wealth funds,⁶³ Qualified Foreign Institutional Investors (QFIIs) and Qualified Domestic Institutional Investors (QDIIIs). QFIIs are increasingly important in China's equity market in terms of providing fundamental research and market sophistication. As of January 2015, USD 67.98 billion⁶⁴ of the QFII quota had been used, out of a maximum permitted quota of USD 150 billion (up significantly from USD 19.7 billion used in 2010). However, according to the CSRC, the quota can be further expanded 9 to 10 times by 2020.

⁵⁹ Wilson and Silva, 2013.

⁶⁰ China has approximately 13 million companies, and there is tremendous demand for capital-raising each year. It has been reported that there are at least 800 companies queuing up for IPOs, all urgently looking for equity capital even under the current bearish market conditions. Source: Journal of the European Union Chamber of Commerce China, June 7 2013

⁶¹ Known as direct financing when raised through equity markets, or indirect financing when raised through commercial banks, even after more than two decades of capital market development

⁶² OECD (2014d).

⁶³ The Chinese government introduced the QFII system in 2002 to permit overseas institutional investors to buy into domestic-listed equity and debt markets. Prior to this, foreign investors were only allowed to invest through the B-Share market.

⁶⁴ State Administration of Foreign Exchange, China

Box 3.2 : Listed companies and OTC trading in China

As at end-February 2014, 1,628 companies (mostly SMEs) were listed on the Shenzhen Stock Exchange with market capitalisation of 14.2 trillion RMB (USD 2.3 trillion) and 1,007 on the Shanghai Stock Exchange with market capitalisation of 15.12 trillion RMB (USD 2.42 trillion⁶⁵). Chinese companies are also increasingly seeking listings on foreign exchanges, further diversifying their pool of potential investors.

China has developed the National Equities Exchange and Quotations (NEEQ), commonly known as China's New Third Board Exchange (the over-the-counter market for growth enterprises, supervised by the CSRC). The first one was set up in Beijing in 2012; with the first listings starting in December 2013. The Third Board Exchange is popular among the micro-sized, small and medium-sized companies with perceived high potential.

Between December 2013 and February 2015, the number of companies listed on the NEEQ rose from 350 to 1,925. As of January 2015, the market value of listed companies totalled 559.2 billion RMB (USD 96 billion), up by almost a factor of 4 since January 2014. Of the listed companies, more than half have annual sales of less than 50 million RMB (USD 8.2 million)⁶⁶, and more than 80% are high-tech companies. The minimum funding amount for an individual investor is 5 million RMB (roughly USD 800,000). Companies listed on the third board can also apply for IPOs on the Shanghai and Shenzhen Stock Exchanges.⁶⁷

The new CSRC leadership⁶⁸ confirms that the capital market is the venue for investing public money. China is home to the largest and most active group of individual investors in the world, with investors in equity, bonds and futures reaching 90 million people, including mutual fund investors exceeding 60 million people. Of these, over 99% are small and medium-sized investors with investment volume less than RMB 500,000 (roughly USD 80,000). Further, Premier Li reaffirmed the priority of protecting investors' rights and interests, especially small and medium-sized investors at the Third Plenum and highlighted the importance of being vigilant that controlling shareholders do not damage the interests of small and medium-sized investors, or the company as a whole will suffer.

According to international experience, strong investor protection can bring about more market innovation, less regulatory intervention, higher market efficiency and a more sophisticated stock market. Minority shareholders, in particular, need to be protected from potentially abusive actions and have effective means of redress. Confidence of investors that the capital they provide can be protected from misuse by corporate managers, board members or controlling owners is an important factor in the development and proper functioning of capital markets. Neglecting investor protection could result in a higher cost of capital and may undermine market confidence and compromise trust and the efficiency of the entire market. Chinese authorities have been trying to improve investor protection. The CSRC set up an investor protection agency end 2011, which was expected to file lawsuits on behalf of individual investors. It remains to be seen how it will work in practice.

⁶⁵ World Federation of Exchanges

⁶⁶ Exchange rate as of 21 Feb 2014, 1 RMB = USD 0.1642.

⁶⁷ Sources used : Reuters, websites of NEEQ, SSE and SZSE

⁶⁸ According to January 6, 2014 remarks by CSRC Chairman Xiao Gang.

The scope for long-term institutional investors to play a bigger role

Long-term institutional investors including pension funds, insurance companies and sovereign wealth funds can also play a key role in ensuring adequate levels of financing, in particular for major infrastructure projects, renewable energy capacity and other long-term investments, complementing bank lending. In China, though, other than sovereign wealth funds, such investors are relatively underdeveloped and their investment portfolio is largely concentrated in government bonds and bank deposits. The government therefore has an important role to play both to foster the development of these investors and as a catalyst for such investments. China's 9 May 2014 State Council guidelines for China's capital markets development highlighted the need to develop institutional investors, including pension funds, social insurance funds and the National Social Security Fund (NSSF), as long-term investors.

As highlighted in the *G20/OECD High-Level Principles of Long-Term Investment Financing by Institutional Investors*, private-public partnerships (PPPs), guarantees or other co-financing arrangements, and public financial institutions (e.g. national development banks) can help develop markets for private long-term investments – with due regard, however, to stimulate rather than to crowd out private investor participation.

Financial inclusion and the role of financial consumer policies

Financial market policies also need to address problems at the level of individuals and consumers of financial services. Fostering financial education and consumer protection is essential to equip especially the most vulnerable groups with the basic skills and competencies they need in order to efficiently use financial services available to them and make informed financial choices. Improved financial education can also foster the development of bank and non-bank finance, in particular as financially literate consumers could be a source of competitive pressure that can stimulate the development and efficiency of financing alternatives.

To address these issues, the OECD and its International Network on Financial Education (INFE) have developed Principles on National Strategies for Financial Education, endorsed by G20 Leaders in 2012. In addition, the OECD/G20 Task Force on Financial Consumer Protection developed High-Level Principles on Financial Consumer Protection, endorsed by the G20 Leaders in 2011. Both sets of principles provide a fundamental framework and guidance to design and implement policies to develop consumers' financial awareness and skills while at the same time ensuring that they are adequately informed and protected in their dealings with financial institutions.

Assessing the needs and gaps in terms of financial literacy of the population and access to financial services are also important. Based on this diagnosis, strategies and initiatives can be tailored efficiently towards individuals' interest and abilities as well as the maturity of financial markets. Programmes should particularly seek to target vulnerable groups of the population such as women, as detailed in the OECD/INFE Policy Guidance, and should start early in individuals' lives, and preferably in schools, so as to reach the population at large. Policy efforts also need to be made to provide access to poorer households to the financial sector (see section 3.1 of the companion report *All on Board: Making Inclusive Growth Happen in China*).

3.6 Enhancing corporate governance in the private and SOE sectors

The Chinese authorities and in particular the Chinese Securities Regulatory Commission (CSRC) have long emphasised the need to develop of an effective corporate governance framework as part of accelerated enterprise reform and capital market development. Corporate governance is a key element in improving economic efficiency, supporting growth and enhancing investor confidence.

Since the Shanghai Stock Exchange (SSE) was established in 1990, the corporate governance framework has been transformed, and capital markets have developed dynamically in China. New institutions have been created and many new laws and regulations have been adopted, a process that continues.

Since 2012, corporate governance-related reforms have focused on improving the transparency of the IPO process, disclosure of dividend policies and effective enforcement (See Box 3.3). For instance:

- The CSRC issued guidance to deepen IPO reform and enhance the transparency of the approval process. The emphasis is on the authenticity, accuracy, and integrity of the process, aiming to increase the quality of disclosure.
- To promote effective and transparent cash dividend policies, the CSRC asked listed companies to improve related clauses in their articles of association. The SSE also drafted guidelines on the payment of cash dividends, in part to encourage long-term investment and value creation.

Box 3.3: Dividend policy and payments in China

OECD Principle II.A(6) refers to shareholder rights, including to “share in the profits of the corporation”. The lack of clear dividend policies, major fluctuations in the levels of dividends paid, and the generally low levels of dividends (the share of cash dividends of Chinese listed companies in their net profit is roughly 25%, well below the 40% level in European and North American markets), are detrimental to the development of China’s financial markets as well as to economic rebalancing.

In May 2012, CSRC issued a “Notice on Issues Relating to the Further Implementation of Cash Dividends by Listed Companies”, requiring increased disclosure by Chinese listed companies of their dividend policies.

In January 2013, the Shanghai Stock Exchange issued new rules encouraging companies to distribute at least 30% of their net profit to investors in the form of cash dividends. Furthermore, a key reform focus in China’s Third Plenum Decisions document is increasing dividend payments of SOEs (see section 4.3 on reforming SOEs). Companies that distribute at least 50% of their net profit to investors and meet certain other criteria will receive expedited treatment for regulatory approvals when they raise funds, participate in a merger or acquisition or undertake a restructuring.

Though China’s corporate governance policy framework is now largely consistent with the OECD Principles of Corporate Governance, there is room for improvement, especially when it comes to the quality of governance within listed companies. Chinese authorities have identified the following main challenges: minority shareholder protection, abusive related party transactions and the quality of disclosure. Despite some progress, boards are frequently ineffective and listed companies are still reluctant to pay dividends. Special attention has also been paid to the need for effective implementation and enforcement.

Conflicts of interest and enforcement remain the key challenges

As a result of an insider ownership concentration system, related party transactions, risk management and enforcement are significant concerns in China. In Chinese companies, majority shareholders are typically very strong and minority shareholders weak, facilitating abusive related party transactions, which is an important policy concern in all markets, but particularly where corporate ownership is concentrated and corporate groups are common.

- Between January 2011 and December 2013, the CSRC investigated and took action in 244 cases. A total of 99 suspected criminal cases were referred to the police. The focus has been on monitoring and investing breaches, with a sharp recent increase in cases against insider trading. Other infractions involve: related-party transactions, disclosure, composition of the board, and quality of accounting and annual reports. Remaining obstacles include: the efficiency of the China Securities Regulatory Commission (CSRC) in monitoring and investigation; the limited role of minority shareholders in corporate governance monitoring (for example, class action is not permitted in China yet); and the efficiency of the court system in handling corporate governance cases. Also, the burden of proof can be heavy and access to accurate information for individuals difficult to obtain.
- Insider trading, self-dealing and abusive related-party transactions hinder capital market development. Recommendations to deter such misconduct include establishing rules to prohibit company executives from receiving company loans unavailable to outsiders, imposing restrictions on officers and employees from selling stock during “blackout periods”, and permanently barring officers and directors of public companies from holding such positions after violating their duties to shareholders. With respect to public enforcement, measures such as intensifying supervision, enhancing monitoring capacities and cross-border cooperation would be important. With regard to private enforcement, Chinese law, including the Company Law and Securities Law, has some mechanisms in place but there is no provision for class action suits. The latter makes it challenging for an individual shareholder to bring a suit against a company for fraud, for example.
- The 9 May 2014 State Council guidelines confirmed the SRC leadership’s intention to reform and improve supervision and enforcement, and it also called for “strengthening the cross-border supervisory cooperation mechanism to increase cross-border enforcement investigation efforts.” These issues are also addressed in the OECD-Asian Roundtable on Corporate Governance’s Guide to Public Enforcement and Corporate Governance in Asia, which was endorsed by 14 Asian jurisdictions, including China, in February 2014. The Guide will enhance the effectiveness of regulators and contribute to a culture of compliance by companies, in the interest of protecting investors and creating confidence in markets. It should serve as a basis for reform and self-assessment within national systems as well as a reference point for peer reviews at regional level.

Strengthening China’s dual board system and the role of institutional investors

China – like many other countries around the world – faces the challenge of ensuring that its corporate governance laws and regulations are translated into good corporate practice through effective implementation. Achieving this goal is complicated by the multiple roles State entities play – as shareholders, regulators, and managers. Strengthening the effectiveness of China’s dual board system, the board of directors and supervisory board, particularly in terms of board composition and duties, would ensure a more effective system of corporate accountability. In particular, providing information to investors about the board and management selection process is essential.

China’s Association for Public Companies (CAPCO) could make an important contribution to corporate governance at the company level. CAPCO was established by the CSRC in Beijing in 2012. Its goal is to enhance the quality of listed companies, improving corporate governance and building a more transparent as well as effective corporate culture. CAPCO is drafting guidelines concerning the behaviour of independent directors and the operation of the supervisory board.

In 2011, when the CSRC prepared a Self-Assessment Report based on the OECD Principles of Corporate Governance that was discussed with the OECD Corporate Governance Committee, there was recognition that improving the corporate governance of listed companies in China is a joint mission.

The role of long-term institutional investors in leading the reform of corporate governance practices should also be exploited, as shown by the United Kingdom's experience in developing a *Stewardship Code*. The CSRC has actively sought to promote a greater role for domestic and foreign institutional investors, including through improving corporate governance by encouraging a broader share ownership structure. The National Social Security Fund (NSSF) has been allocated 10% of the shares of listed SOEs, and provincial pension funds may soon also invest significant resources in listed securities, through the NSSF. Like other large investors, the NSSF could use its influence to drive through improvements in corporate governance. A first step in this direction would be the development of a corporate governance policy and the setting-up of a team within the fund to handle these issues.

Reforming State-Owned Enterprises

In China, companies formally considered as SOEs account for close to 50% of China's fast growing GDP. Given their large presence in the economy, a first step to promote the role of the market in the economy must involve a careful assessment of the scope and functions of SOEs. In order to ensure a competitive environment between SOE's and private companies, the former must also be endowed with clear commercial objectives while any regulatory advantages (or disadvantages) must be addressed (see section 3.2). Moreover, while State companies have become more commercially oriented in the past decade, their productivity growth has slowed over the past five years, holding back aggregate economic growth (see section 2.5 on spurring innovation in SOEs).

The reform challenges in the Chinese SOE sector are major and multi-faceted. The first one pertains to their size and diversity, given their extensive presence in the economy across industrial sectors and some services (such as banking). The second challenge is control and accountability: only one third of SOEs are controlled by the central government. The remainder are in the hands of regional authorities and municipalities, and mostly subject to less stringent legal, regulatory and reporting requirements. However, there is a risk that SOEs operated relatively far from the central government may become beholden to local interests.

A further challenge will be raising the financial performance of Chinese SOEs, which currently earn profits at about half the level of comparable private firms – and less, if the earnings of the 21 legal monopolies are disregarded. This has been ascribed to a mixture of general inefficiency and the fact that a number of SOEs are burdened by public policy obligations and are subject to *ad hoc* political intervention.

Recent reforms in China include the appointment of well-functioning boards of directors in over 50 centrally-owned SOEs. Most of these boards (which either replace or supplement the previous, weaker, supervisory boards) include a mix of executive and non-executive directors. By SASAC's own admission, not all of them are well functioning, and, having established the boards, a second wave of reforms is now under way to professionalise them.

The government has also announced plans to increase private investment in many sectors hitherto dominated by the State. In the first half of 2014, several large SOEs in the energy sector announced their intention to divest parts of their assets, including Sinopec and China National Petroleum Corporation (CNPC). Railway construction and telecommunications infrastructure are other tightly State-controlled sectors in which the authorities are seeking private investment. Local governments, which own a large majority of China's more than 147,000 SOEs, are also seeking private investors.

Even so, current restructuring proposals seem to be rather modest in scope and are unlikely by themselves to change the current pattern of State dominance in the economy. The reforms outlined so far suggest that there are no plans to fundamentally restructure SOEs or to curb their monopoly privileges. So far there has been no suggestion that the regulatory protection SOEs enjoy in their main operating sectors – whether aviation, defence, energy or telecommunications – should be pared back.

Instead, they appear to envisage that State-backed companies will be able to enjoy the benefits of private investment, but without ceding control or opening their markets to more competitors. This policy differs markedly from the bold privatisation plan launched in preparation for WTO entry in 2001.

Efforts to move toward a more mixed economy would certainly be consistent with the government's objective to prioritise these companies' commercial objectives – especially if this is paired with divestments in sectors where there are no compelling reasons for continued State ownership. However, a mixed economy is only really feasible when there is a level playing field between public and private companies competing in the market. Traditionally this argument was often voiced against undue advantages to SOEs (e.g. in the form of subsidies, cheap finance or a privileged market position) but in the case of China the argument cuts both ways. A number of SOEs face a difficult competitive situation because of the public policy and *ad hoc* priorities that they are burdened with. This is contrary to internationally accepted good standards such as the OECD Guidelines on Corporate Governance of State-Owned Enterprises which posit that when an SOE is required to undertake obligations beyond commonly accepted commercial norms then these should be disclosed and their costs covered in a transparent fashion. This is further closely related to the Chinese reform priority concerning a stronger categorisation of SOE objectives. In fact, in the absence of such categorisation the objective of a more mixed economy will be hard to achieve.

Measures to professionalise boards of directors and establish clear specifications of the State's commercial and strategic goals regarding different types of SOEs are urgent reform priorities for China's SOE sector. The two issues are linked. Measures to enhance SOE performance and improve board performance are usually ineffectual unless a well-structured performance monitoring is put in place. Performance monitoring, in turn, is barely feasible unless the ownership function has specified clearly the requirements of each firm. As mentioned above, this needs to be coupled by carefully calibrated safeguards to ensure that SOEs that operate in a competitive environment are subject to neither undue advantages nor disadvantages. One useful approach could be the creation of asset management companies to help SOE boards fulfil their mandates (see companion report *All on Board: Making Inclusive Growth Happen in China*)

The government recognises the difficulties of taking on vested interests in SOEs. It may also be wary of the social implications of SOE liberalisation and the risk of what might appear to be private-sector profiteering. It may well be that the government's ongoing anti-corruption campaign is a means to facilitate liberalisation. Even so, the current model of State capitalism is likely to remain in place for some time. As such, the Third Plenum confirmed that the public-ownership system should remain the "dominant" characteristic of the economy.

3.7 Combating business bribery

Corruption undermines public governance, sustainable economic development and fair business practices, while discouraging sustainable inward foreign investment. Corruption also impacts outward FDI, rendering it less attractive to potential recipients. Since assuming office, President Xi has recognised the seriousness of the corruption problem for economic development and political stability, vowing to defeat its perpetrators, whether "tigers" or "flies" (i.e. high- or low-ranking officials).

China's Criminal Law sets out the definitions of active and passive domestic bribery offences. Anti-bribery enforcement efforts have historically focused on the investigation and prosecution of Chinese government officials accused of accepting bribe payments. Several senior government officials have been charged with corruption and abuse of office. China's enforcement efforts are also reportedly becoming more focused on bribe payers, including enforcement against Chinese businesses and foreign companies operating in China. China's Supreme People's Court recently adopted legal guidance that incentivises self-reporting by business, which also signals a renewed focus on bribe payers.

Bribery of foreign government officials and officials of international public organisations became criminalised under the Revised Criminal Law, effective from 1 May 2011. The new definition of the offence prohibits bribery of foreign government officials and officials of international public organisations. It applies to all Chinese citizens, wherever located, and all natural persons of any nationality within China. There is scope for China to strengthen enforcement in this area, particularly by increasing enforcement of bribery of foreign public officials by Chinese businesses operating outside of China. Indeed, Transparency International's 2011 Bribe Payers Index ranked China 27th of 28 countries.

China has participated in the activities of the OECD Working Group on Bribery as an *ad hoc* observer/invitee since 2007. China has not yet adhered to the OECD Anti-Bribery Convention (see box 3.4), but doing so would considerably strengthen China's efforts to combat national and transnational corruption. As a member of the G20 Anti-Corruption Working Group, China has joined other G20 members in formally calling for active engagement with the Working Group on Bribery with a view to exploring adherence to the Convention. In addition, as a member of the Asian Development Bank (ADB)/OECD Anti-Corruption Initiative for Asia and the Pacific since 2005, China has endorsed the ADB/OECD Anti-Corruption Action Plan for Asia and the Pacific. China has also been a State Party to the United Nations Convention against Corruption since 2006.

Box 3.4 The OECD Anti-Bribery Convention

The keystone of the OECD's efforts to set and promote international anti-corruption standards is the OECD Anti-Bribery Convention. The Convention aims to limit unfair competition in international business transactions and support development by targeting specifically the "supply side" of foreign bribery. The supply side of bribery is when individuals or companies bribe officials in foreign countries in order to obtain a contract or other business. Exporters and investors benefit from operating in a clean, transparent, predictable business environment where contracts are won on the basis of superior products or services instead of the highest bribe. Success is based upon innovation and the ongoing relevancy of products or services rather than false demand created by corrupt practices.

Countries adhering to the Convention are required to comprehensively criminalise bribery of foreign public officials under their domestic laws and enforce the offence. In this way, the Convention would complement China's domestic enforcement efforts by requiring States Parties to the Convention to prosecute their own companies for bribery of Chinese officials.

The Convention encourages international cooperation to prevent and deter the bribery of foreign public officials in international commerce and to provide mutual legal assistance in combating bribery. As a State Party, China would be able to count on legal assistance from other States Parties in trans-border bribery investigations and proceedings, including confiscation of bribe proceeds. This would assist with investigations and facilitate the sanctioning of bribe payers and takers.

China would be at the table with its economic peers and would be able to more effectively contribute to international standards and policy-making on foreign bribery as well as in monitoring the implementation of these standards by trade and investment partners and competitors. Accession to the Convention would provide China with an important platform for sharing its good practices, including for preventing and detecting corrupt activities by State-owned enterprises conducting business in foreign markets.

China's adherence to the Convention would send a stronger signal to the international business community that China is committed to fighting foreign bribery and strengthen trade relations with major trading partners such as the United States. Adhering to the Convention will mean that China's foreign bribery legislation is harmonised with international standards, creating more transparency in the operating conditions for foreign firms that wish to do business in China.

3.8 Enhancing labour market flexibility while protecting workers

With population ageing and absent greater mobilisation of labour resources, improvements in the productivity of existing human capital is of paramount importance. Although labour participation remains higher in China than the OECD average, restructuring of the Chinese economy has resulted in a convergence of the rates over the last two decades. While total participation rates for the age group 15-64 in China declined from 83% in 1997 to 77% in 2012, the rates in the OECD as a whole remained quite stable around 70%. The convergence at the overall level is mainly due to diverging trends in labour participation for women; while the participation rate for Chinese women aged 15 to 64 declined from 77% to 70%, the OECD average increased from 59% to 62%. For men, the trends are relatively similar; the participation rate for Chinese men declined from 88% to 85%, while the OECD average declined from 81% to 80%. If the downward trend in participation rates continues approaching the OECD average, the decline in the labour force will accelerate. Moving towards greater gender parity in labour participation could, however, considerably delay the decline (see section 3.5 of the companion report *All on Board: Making Inclusive Growth Happen in China*).

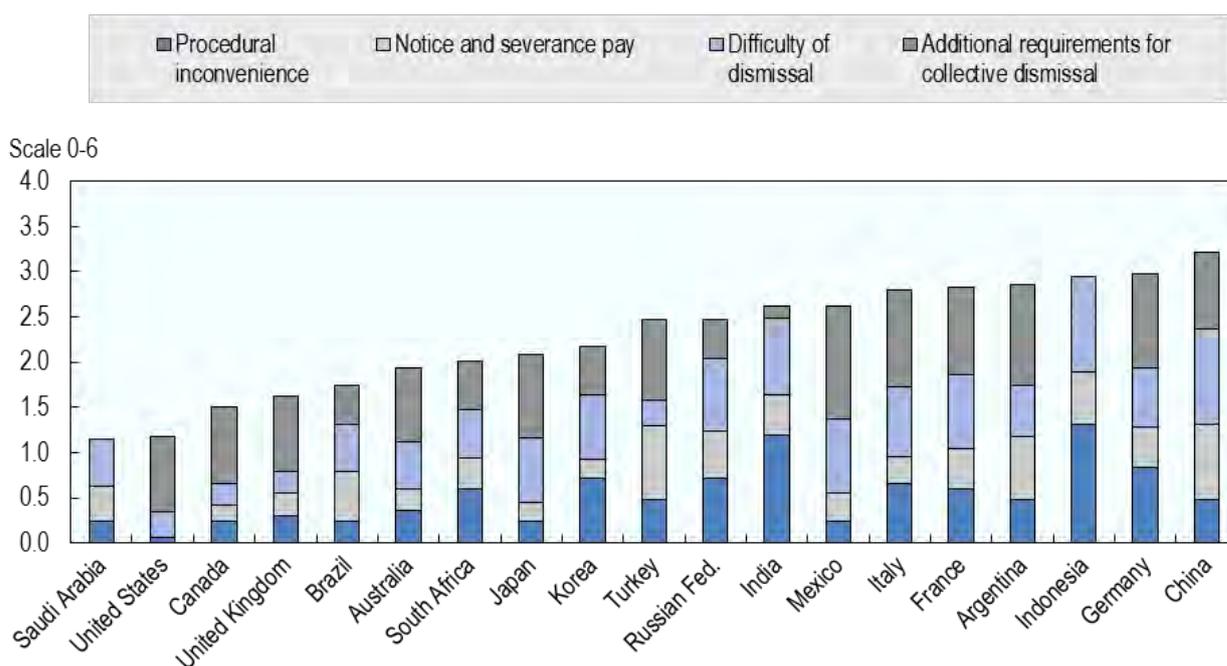
Facilitating mobility and more balanced employment protection legislation are key to improving labour utilisation.

Barriers on labour mobility, stemming mainly from the *hukou* system, have eased in the recent decade or so, and in July 2014 the State Council announced a further round of reforms under the National Urbanisation Plan 2014-20 that will see a further reduction in restrictions on migration to smaller urban areas. Notwithstanding these changes, the *hukou* system continues to prevent labour from moving to where it would be valued most, thereby reducing overall economic efficiency. At the same time, the system allows firms to economise on the social welfare contributions for migrant workers, thereby keeping labour costs low. The expected new urbanisation wave should see the lifting of many of the remaining restrictions on people's permanent migration, but criteria to obtain permits to live in the largest cities are set to remain stringent (see section 3.2 of the companion report *All on Board: Making Inclusive Growth Happen in China*).

Efficiency improvements are also faster in countries where the labour market is more flexible and, in particular, where legislation concerning dismissal of regular contracts is not overly restrictive. This occurs because flexible legislation facilitates reallocation of labour resources across firms, from less productive to more efficient firms, and because entrepreneurs tend to shy away from experimenting with growth-enhancing but risky technologies, if they know it will be difficult to downsize in the future if their projects fail.

In China, employment protection legislation (EPL) for regular, open-ended contracts is very restrictive, be it compared with OECD countries or with other key emerging-market economies. In particular, with severance pay as high as one month of wage per year of service, China has the highest rate of severance pay among G20 countries, together with Turkey (see Figure 3.8). In addition, the formal legal definition of fair dismissal is somewhat restrictive, insofar as incompetent workers can be dismissed only in the case of lack of improvement after the provision of adequate training. Moreover, remedies for unfair dismissal are the most burdensome for employers among G20 countries, involving the possibility for the worker to choose between either reinstatement in the job with back pay or compensation as high as two months of wage per year of service. Last but not least, emerging-market economies with relatively restrictive legislation for individual dismissals typically have light or no additional regulations on collective dismissals. In China instead, for any cutback in employment of 20 employees or more, the selection of redundant workers must be based on social considerations and consultation with trade unions are required.

Figure 3.8 Protection of permanent workers against individual and collective dismissal



Note: Data refer to 2013 for OECD countries and to 2012 for other countries. The figure presents the contribution of different components of employment protection for regular workers against individual dismissal and collective dismissal (EPRC). The height of the bar represents the value of the overall EPRC indicator, which varies between 0 and 6 from the least to the most restrictive.

Source: OECD Employment Protection Database, 2013 update.

By contrast with permanent contracts, fixed-term and other temporary contracts are relatively unrestricted in China (see Figure 3.9). Moreover, enforcement of these regulations is particularly difficult, because it is mainly dependent on individuals who consider themselves as victims and lodge a complaint. While potential plaintiffs are well identified and able to react in the case of terminations, victims of breaches to legislation concerning hiring on temporary contracts are unlikely to take their case to court⁶⁹. However, when flexible rules in the use of fixed-term contracts coexist with strict employment protection regulations for open-ended contracts, firms react by substituting temporary for regular workers, due to the smaller cost involved with the termination of the employment relationship at the end of a fixed-term contract.⁷⁰ Although there are no official statistics on the overall share of temporary workers in total employment, trade union statistics suggests that dispatch workers – who roughly correspond to temporary-work-agency (TWA)⁷¹ workers in OECD countries – amounted to more than 60 million in 2010, corresponding to 20% of the urban workforce.⁷² Officials of the Ministry of Human Resources and Social Security report much

⁶⁹ See OECD 2014h, forthcoming, *2014 Employment Outlook*.

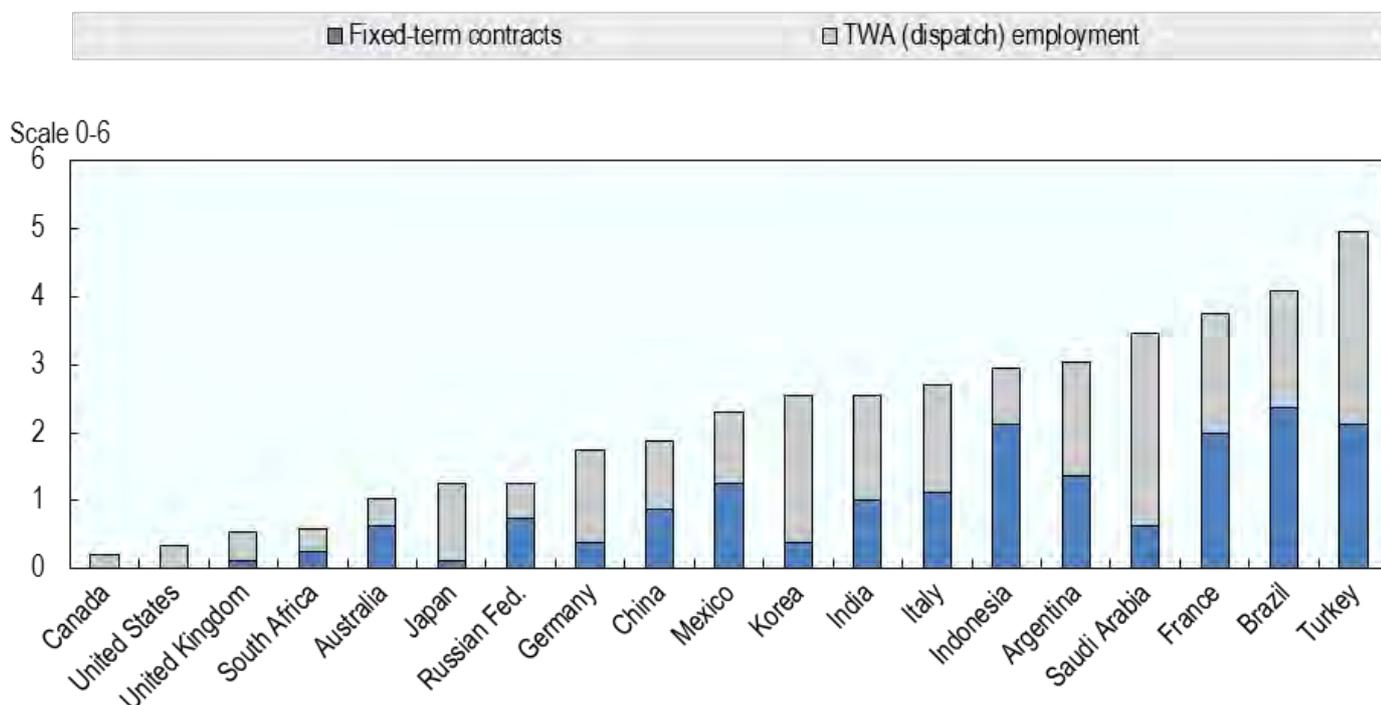
⁷⁰ OECD 2013g, *OECD Employment Outlook 2013*.

⁷¹ TWA or dispatch employment usually designate a three-way labour relationship in which the employer (i.e. the agency), within the framework of its business or professional practice, places the employee at the disposal of a third party (i.e. the user-firm) in order to perform work (i.e. the assignment) under supervision and direction of that user-firm by virtue of an agreement for the provision of services between the user-firm and the agency.

⁷² Biancamaria, 2014.

lower figures (7-8% of workers are dispatch workers), which nonetheless remain much higher than corresponding statistics for OECD countries (typically no greater than 3%⁷³). As a welcome step in the right direction, the 2008 Labour Contract Law was amended in 2012 (effective from mid-2013) to strengthen the framework for operation of such agencies and to specify the terms and conditions for dispatched workers.

Figure 3.9 Regulation of temporary employment



Note: Data refer to 2013 for OECD countries and to 2012 for other countries. The figure presents the contribution of regulations for standard fixed-term contracts and TWA (temporary-work-agency) or dispatch employment to the overall indicator of regulation of temporary employment (EPT). The height of the bar represents the value of the overall EPT indicator, which varies between 0 and 6 from the least to the most restrictive.

Source: OECD Employment Protection Database, 2013 update.

Dual labour markets – characterised by large disparities in worker protection across contract types and large shares of temporary workers – pose challenges not only from an equity viewpoint but also for efficiency and productivity growth. Indeed, firms are likely to invest less in their workforce, if they cannot count on a sufficient period of time to recoup investment costs. Consistently, international experience shows that countries that implemented partial reforms of EPL, whereby regulations on temporary contracts were weakened while maintaining stringent restrictions on regular contracts, have indeed experienced slower productivity growth.⁷⁴

⁷³ See OECD 2014h, forthcoming, *2014 Employment Outlook*.

⁷⁴ OECD 2013g, *OECD Employment Outlook 2013*.

One of the reasons justifying high levels of severance pay in the case of dismissal of permanent employees is the need to provide a safety net to displaced workers. However, this goal is better provided through the provision of adequate and universal unemployment benefit, even if made conditional on strictly-enforced job-search requirements and coupled with well-designed activation packages.⁷⁵ As in many emerging-market economies, the unemployment-benefit replacement rate is relatively low in China.⁷⁶ Moreover, the proportion of the unemployed receiving benefits is under 10%, quite low in comparison with most G20 countries (see Report 2). This implies that, in order to avoid jeopardising social cohesion, flexibility-enhancing reforms of dismissal legislation should be accompanied with a more general reform of the unemployment-benefit system, making it more generous and universal. Nonetheless, provision of adequate unemployment benefits must be made conditional on strictly-enforced job-search requirements and should be accompanied with effective job-placement services. This suggests that China should, in addition, develop a proper activation strategy oriented towards facilitating the job search and improving the employability of workers.

Although reforms of labour regulations are key to enhancing the allocation of resources and faster productivity growth, labour flexibility should not be achieved at the expense of occupational health and safety. In 2013, there were 67,000 fatal workplace accidents in China, implying a rate of more than 9 out of 100,000 employed workers, as against an OECD average of less than 6 per 100,000 workers.⁷⁷ Moreover, monitoring working conditions remains a challenge in China, especially in small firms, where most industrial accidents are not reported.⁷⁸ Following the Chinese ratification of ILO Convention 155, which lays down criteria to ensure hazard minimisation, safe systems of work and adequate employee protection, regulations in this area have become more protective. Nonetheless, more progress needs to be achieved in ensuring compliance by firms, in particular smaller enterprises.

It should be acknowledged, furthermore, that common practice in the labour market does not always fully reflect the legal framework. For example, while child labour and forced labour are prohibited by law, they still exist and there is a need for government action to improve the enforcement of existing laws. The 2008 Labour Contract Law mandates that all workers should be covered by insurance whereas many employees, including most migrant workers, remain uncovered. With a view to better alignment of practice with law, efforts could be made to improve the capacity of trade unions to protect and vindicate the legal rights of their members.

Going forward, unleashing the full potential of China's human capital will require not only labour market reforms and measures to improve job quality but also sustained investment in education, training and up-skilling (OECD, 2015). This will both improve the employability of individuals and improve economy-wide productivity, facilitating China's efforts to move up the value chain and seize opportunities arising from new growth drivers (see also section 2.5 on human capital requirements for a knowledge driven economy as well as section 3.5 of the companion report *All on Board: Making Inclusive Growth Happen in China* for a fuller discussion on the scope for reforms in this area to improve social cohesion).

⁷⁵ See e.g. OECD, 2010, OECD Employment Outlook 2010.

⁷⁶ OECD, 2011a, OECD Employment Outlook 2011.

⁷⁷ OECD, 2006.

⁷⁸ Fung and Chan, 2012.

Key recommendations

Prioritise productivity-enhancing reforms to product market regulations

- Relax controls on prices, fees and advertising rights, particularly for professional service providers such as accountants, architects, engineers and lawyers.
- Remove excessive restrictions on foreign market entrants in non-manufacturing sectors.

Stimulate and appropriately regulate competition while protecting consumers

- Encourage greater competition in network industries, while ensuring social and environmental costs are fully factored into pricing decisions (e.g. in the energy sector).
- Clarify the various roles of institutional actors in enforcing competition policy.
- Establish and enforce standards that protect consumers, ensuring safety, quality (e.g. in retail and land transportation) and transparency (e.g. in financial services).
- Continue efforts to professionalise SOEs' boards of directors and establish clear specifications of the state's commercial and strategic goals of different types of SOEs.
- Establish a dedicated institution to manage, assess and promote the quality of regulations and consider the introduction of automatic sunset clauses for new regulations.

Promote entrepreneurship

- Scale up entrepreneurship education in schools, vocational institutions and universities.
- Further ease the administrative burden on business start-ups.
- Improve access to finance for SMEs, including through the development of capital markets.

Take steps to ensure financial stability

- Complement efforts to regulate the banking sector with similar efforts in the shadow banking sector.
- Proceed with planned the formalisation of insurance for banks' retail deposits.
- Foster market-based long-term investment financing, also by enhancing the role of institutional investors in this effort.

Enhance corporate governance and tackle corruption in the private sector

- Step up efforts to increase transparency of related-party transactions at listed firms.
- Reform the SOE sector by broadening the ownership base; implement measures to clarify corporate objectives; and professionalise the State ownership function and corporate boards.
- Ratify the OECD Anti-Bribery Convention and join other G20 economies as a full member of the Working Group on Bribery in International Business Transactions.
- Consider adhering to the OECD Anti-Bribery Convention.

Improve labour market flexibility while protecting workers' rights

- Ease restrictions on employment protection legislation while strengthening protection for those on temporary contracts so that the level of protection increases with tenure.
- Improve the enforcement of laws and the capacity of trade unions to have their members rights vindicated.

Chapter 4. Reforming the State to sustain the changing growth model

With the market set to play an increasingly decisive role in China's economy in the coming years, the State will need to adapt its own institutions and functions accordingly. As discussed in the previous chapter, the State has a central role in ensuring that the right policy framework is in place for the private sector to flourish. One key question for the Chinese leadership going forward will be to adapt SOEs so that the private sector can develop. The State must also ensure that the development of the market brings benefits across the population. In fully functional market economies, the State has over time developed a major role as a provider of basic social services, including education, health and social protection, as well as physical infrastructure. In China, some of these services (such as pensions) were traditionally provided by SOEs. Over time, the public administration is taking over many of these functions, which calls for institutions and processes to ensure efficient and effective delivery. Reform to the Chinese State and institutional framework should therefore encompass enhanced fiscal transparency and accountability of the different levels of government and a higher level of public sector integrity. Such institutional reforms are important in their own right, but they are particularly necessary to achieve an appropriate balance of responsibilities between the State and the market in the effective, efficient and equitable provision of goods and services.

The weak enforcement of standards for improving product quality is a key issue that risks seriously undermining and delaying the transition to a high-value-added economy. If not properly enforced, regulations cannot effectively achieve the goals intended by the governments. Regulatory enforcement is key not only for ensuring the effective application of quality standards, but also for safeguarding health and safety, protecting the environment, securing stable State revenues and delivering other essential public goals. Inspections are the most visible and important among regulatory enforcement activities.

4.1 Modernising the public administration and promoting a culture of integrity

Improving the performance, integrity, transparency and accountability of the State are critically important to ensure citizens' trust in government, to create a supportive environment for private sector development, to support economic performance more generally and to improve citizens' wellbeing. Chinese citizens are increasingly sophisticated in terms of their expectations of service quality in the private sector. This also drives expectations of government, in terms of service quality, accountability and standards of integrity. In order to respond to these challenges, China has made investments in the modernisation of its public sector, notably in the areas of e-government and human resource management, but it needs to continue in these efforts, as well as strengthening public sector integrity in all areas. Finally, public policies and laws are only as good as their implementation and enforcement. Limited policy enforcement as a result of weak justice institutions may lead to uneven distribution of the cost of compliance across citizens, business and other stakeholders. Strengthening quality of courts in China will assist the country with the implementation of its anti-corruption policies and other priority reforms.

Promoting a culture of integrity in the public sector

The risk of corruption is significantly heightened in environments where the reporting of wrongdoing is not protected, especially in the workplace. Public officials have access to up-to-date information concerning their workplaces' practices, and are usually the first to recognise wrongdoings. Due to the hidden nature of corrupt practices, the ability to encourage and protect reporting becomes an essential anti-corruption tool. However, those who report wrongdoings may be subject to retaliation, such as intimidation, harassment, dismissal or violence by their fellow colleagues or superiors.

Strengthening the civil service means making it accountable both to its political masters and to the citizenry, while operating fully within the law in an open and transparent fashion, and allowing for the participation of the community. A strategic civil service should be capable of both providing evidence based policy advice and carry out the implementation of government policies impartially. Governments use various human resources management practices to ensure that the right people are attracted to the civil service, that their selection is merit-based; and that they are motivated – through appropriate performance management system – to achieve the strategic goals promulgated by their superiors. Notwithstanding previous waves of civil service reforms, several challenges lie ahead on the implementation and consolidation of best practices in China.

Since President Xi Jinping has assumed office, anti-corruption efforts have been stepped-up, yet challenges remain (see section 3.7 on combating bribery in the private sector). The existing anti-corruption framework focuses largely on criminalisation and the sanctioning of bribery offenses, with the development of policies focused on prevention becoming more common in recent years.

At the central level and in wealthier coastal areas, a performance-oriented system selecting through competitive mechanisms and linking rewards to performance is in place. In poorer areas, which are mainly rural, the reality is quite different with governments often facing latent difficulties in attracting qualified staff. Exemptions from the rules and distance from the centre also give rise to fertile ground for corruption. Ensuring the integrity of civil servants has also been reinforced by some targeted HRM practices. One element in the fight of corruption in the public sector is raising compensation to competitive levels. Another one is requiring civil servants who work in personnel, finance, materials management, licensing and approval of funding and investment projects to be rotated in every five years.

Many OECD countries have moved towards a model whereby major decisions regarding employee selection, recruitment, remuneration, working conditions and dismissal are delegated from a centralised HRM body to line Ministries/Departments/Agencies with the central body retaining a policy making role. While some initial steps towards increasing the flexibility of the HRM system have occurred, further efforts are required to ensure that reform of the public workforce results in the improved design and delivery of public services.

Whistle-blowers in China are afforded protection under Article 41 of the constitution for reporting unlawful conduct and against retaliation for lawful reporting.⁷⁹ In a recent review of the whistle-blower protection laws in G20 countries,⁸⁰ China received high marks for its legislative coverage (comprehensiveness) of whistleblowing, the definition of whistle-blowers. However, further progress can be made in the oversight of whistle-blower protection mechanisms, and in enhancing transparency in the reporting and tracking of whistle-blower action and retaliation.

Defining standards of conduct for public officials and the values of the public sector are amongst the first steps towards safeguarding integrity in the public sector. Tools such as codes of conduct and codes of ethics are easily understandable and flexible instruments that articulate these standards. They can support creating a common understanding within the public service and with citizens on the behaviour civil servants should observe in their daily work and help define misconduct.

⁷⁹ See also OECD (2011c), *Study on Whistle-blower Protection Frameworks, Compendium of Best Practices and Guiding Principles for Legislation*, pg. 18.

⁸⁰ *Whistleblower Protection Rules in G20 Countries: The Next Action Plan* June 2014; *Blueprint for Free Speech*, 2014.

China has undertaken efforts to reform its Civil Service system as well, in order to professionalise its working ranks, discourage graft and corruption, and improve integrity. However, a single, unified code of conduct is yet to be developed for civil servants. The development of a code of conduct could provide a framework for the professional expectations of civil servants, and regulations to address common issues such as conflicts of interest and the use of official information and resources.

In addition, an effective judicial system is critical to safeguarding the integrity of the public sector and promoting good governance. Citizens across the world are seeking more accountability from their governments. The judiciary constitutes the primary scrutiny mechanism of the actions of public officials, through administrative justice and review of legality. Thus bolstering administrative justice system in China would raise accountability and transparency in public decision-making while complementing China's anti-graft campaigns.

Ensuring that the integrity of government decision-making is not compromised by public officials' private interests is a growing public concern. An effective conflict-of-interest policy seeks to identify risks; prohibit unacceptable forms of private interest; raise awareness of the circumstances in which conflicts can arise; and ensure effective procedures to resolve such situations.

For example, the disclosure system in China focuses mainly on the disclosure of financial elements but it also covers interests. Chinese officials are required to disclose real estate owned by themselves, their spouse and dependent children. The disclosure covers many categories of investments, such as securities, stocks, futures, and insurance policies taken by officials, spouses and dependent children. Investments by officials' spouses and dependent children in unlisted companies, enterprises and individual businesses also need to be disclosed. The categories of income that need to be disclosed are also comprehensive and include salary, all types of bonuses, allowances, subsidies and welfare benefits, remunerations from consulting services, lectures, reviewing manuscripts, etc.

However, the enforcement of these requirements is variable. In order to protect the legitimacy of disclosure policies, there should be no exceptions to their application, and penalties should be assessed for non-compliance, except regarding issues that may affect national security.

In 2012, the G20 identified a rigorous system of asset disclosure as a "powerful tool to prevent conflicts of interest and corruption", and each member pledged to adopt and implement a "financial asset and disclosure system for relevant officials to prevent, identify and appropriately manage conflicts of interest."⁸¹ The G20 has also identified principles as guidance for the G20 countries that may wish to enhance their standards for asset disclosure, by ensuring their asset disclosure systems are: (i) fair; (ii) transparent; (iii) targeted at senior leaders and those in at-risk positions; (iv) supported with adequate resources; (v) useful; and (vi) enforceable. Specifically relevant to China is the issue of transparency, whereby information disclosed "should be made as widely available as possible within the government and to the general public." Further steps towards increasing transparency in China's asset disclosure system, while respecting applicable privacy laws, would boost public trust in the system and increase pressure for compliance with disclosure requirements.

Internal and external control mechanisms to enhance public governance and accountability

Ensuring strong internal and external control is key to good governance and public sector accountability. Through sound internal control, governments provide reasonable assurance that its

⁸¹ G20, 2012, High Level Principles on Asset Disclosure by Public Officials.

operations are efficient and effective, and that its financial reporting and compliance with laws, regulations and policies is reliable, in order to deliver on its mandate. It is essential to have a risk-based control system that is overseen by independent internal and external auditors that are responsible for assessing compliance with internal control processes, and that take a coordinated approach to control and accountability.

A strong control environment relies on an independent and professional external audit function. The National Audit Office of the People's Republic of China (CNAO), as a member of the International Organisation of Supreme Audit Institutions (INTOSAI) since 1982, is familiar with INTOSAI's standards for SAIs and good practice guidelines for public sector auditors. The CNAO hosted the 2013 XXI Congress of INTOSAI, launching the *Beijing Declaration on Promotion of Good Governance by Supreme Audit Institutions* – a forward-thinking document that sets out the potential for SAIs to play a greater role in supporting good governance by providing useful and relevant information for policy-making. In line with international trends, China could benefit from its national audit institution assessing the reliability of financial information and non-financial performance information as inputs into difficult decision-making and policy-making processes.

It is important to ensure the independence of a country's external audit function and that this independence, in line with internationally recognised standards, permeates its functioning on a daily basis, including with respect to security of tenure of its staff, audit programming and audit budget management. Safeguarding functional and operational independence from the top down is critical in China, where the CNAO is additionally responsible for organising and administering the audit work of the existing 31 Provincial audit offices, 434 Municipal audit offices and 3,075 County offices⁸². An SAI should have sufficient capacity to ensure that auditing at the central, provincial, municipal and county levels is sufficiently coherent and coordinated in order to apply government-wide oversight and scrutiny. This would appear particularly useful in China, where budgetary expenditures are devolved and municipal budgets are fragmented and often reliant on extra-budgetary sources.

Mechanisms for following up on audit recommendations can affect the impact that an SAI's audit work has on accountability. Making audit findings readily available to its key stakeholders, including citizens and the legislature or legislative committees, such as the standing committees of the People's Congresses in China, is a transparent way of empowering other actors to assist in holding all levels of government to account. In addition to ensuring accountability and oversight, robust, whole-of-government action is needed to fight bribery in public institutions. The People's Republic of China is a State Party to the United Nations Convention against Corruption (UNCAC) since 2006, and legislatively criminalises the act of bribery of foreign or domestic government officials. However, the criminal definitions of bribery are ambiguous, and could be improved with official guidance in some areas. For example, there is little guidance on the definition of a "public official", "foreign public officials" or "property" for the statute which criminalises the bribery of foreign officials.

Digital service delivery to drive public sector efficiency

By 2020, it is estimated that e-commerce in China will be worth more than e-commerce in the US, the UK, Japan, Germany and France combined, underlining the growing importance of the internet for the delivery of private sector products and services. Today, China finds itself below OECD and South-East Asian standards with regard to e-government development, although above the global average, according to the UNPACS' E-Government Survey 2014.⁸³ This overall ranking conceals some

⁸² CNAO, 2014.

⁸³ UNPACS, 2014

internal variance: whereas online service delivery appears well-developed, telecommunications infrastructure remains less developed relative to international peers. Still, China has improved from less than 2% of individuals using the internet in 2000, to having almost 46% in 2013. A similar development can be observed in the use of mobile technology; from just 7% mobile subscriptions in year 2000, the number was around 89% in 2013, including increased 3G penetration. This opens a range of opportunities to help hold governments more accountable, to ensure transparency and public engagement, and to provide public services through mobile platforms.

China has been focused on public sector modernisation through the use of ICTs for more than a decade. In line with OECD countries, China took up its “Government Online Project” already in 1999.⁸⁴ This project was particularly focused on improving administrative processes within government. In an institutional context of highly decentralised provinces, e-government was introduced as an important tool to increase government performance. This implies, on the one side, supporting economic development through an increasingly transparent and decentralised administration, while at the same time providing the central government with the information and ability to monitor and steer economic activity.⁸⁵

As China continues to grow, it increasingly faces regional development gaps and considerable inequalities. China should continue applying tools to monitor disparities and regional performance, while building local skills and capabilities to ensure the full implementation and usage of digital services, exploiting the potential of digital government. Today, new technologies are demonstrating that they hold a part of the answer to demographic challenges, for example through tele-medicine, digital education and care. China should ensure that it fully exploits the potentials of digital government, dealing with its changing demography and ensuring trust in the public provision of welfare services.

Meeting these service challenges will require China to work across policy silos, integrating the use of ICT in all sector policy areas. In order to ensure both equitable and joined-up services, China needs to ensure coordinated and standardised approaches to information management across the government, as well as across levels of government.⁸⁶ Aligning government action in this manner will enable coherent service delivery, creating value added for citizens, and increasing the capacity of government to solve social problems. Designing and implementing coherent public sector service delivery strategies across different channels is a challenge that has been encountered across all OECD member countries, and underlines the importance of clear information management and digital systems in order to improve public services, regardless of the channel by which they are delivered.

These broader service delivery challenges and the evolving relationship with citizens is causing the traditional e-government focus in OECD countries to shift from administrative effectiveness, service delivery and internal processes towards a broader concept referred to as digital government. This doesn't mean that the focus on efficiency and rationalisation of processes is disappearing. However, it implies that the role of government is evolving from the one of the central controller, regulator and

⁸⁴ Fung and Chen, 2012

⁸⁴ OECD (2005), and Fung and Chen, 2012

⁸⁵ OECD guidance on these reform areas include OECD (2010), “Accountability and Transparency: A Guide for State Ownership”; OECD (2012), “Competitive Neutrality: Maintaining a Level Playing Field between Public and Private Business”; and OECD (2013), “Boards of Directors of State-Owned Enterprises: An Overview of National Practices”, The work is led by the OECD Working Party on State Ownership and Privatisation Practices.

⁸⁶ OECD (2005).

service provider, to a role where governments are expected to increasingly play a role of facilitator of citizens' interaction, driving forward inclusive policy-making and service delivery. Hence a key shift is happening from a citizen-centred digital approach to a citizen-driven one.

While China has made progress on many fronts since the 2005 OECD review of its e-government system, the OECD recommendation on digital government points to the next set of issues that it will have to take into account as it adapts its public governance model to deal with increasing pressure and social demands from citizens and policy stakeholders. In OECD member countries, some of the most pressing digital government issues include putting in place and implementing open government data strategies in order to support better policies and public services, often in combination with data consolidation and increased interoperability. Better data, increased transparency and access to government are not only increasing accountability, they also leverage the government's capacity to create impact. Good public data can facilitate better and simpler public services and procedures, but the use of public data also enables private sector innovation and economic growth.⁸⁷

Finally, the OECD Recommendation on Digital Government Strategies provides indications of how greater openness can be built into the relationship between government and citizens at all levels of government. The governance of public services in China has long meant that some subnational governments – particularly those with relatively more affluent and better educated populations – have been able to experiment with increasing government openness. For example *Suzhou Online* is a local experiment intended to increase citizen participation through an online bulletin board system.⁸⁸ While such experimentation is necessary to support public sector innovation, it is also important to take further steps to generalise good experiences to improve the broader system and to ensure clarity in service standards and citizens' rights.

4.2 Building a quality justice system

Implementing strong rule of law principles and fostering the quality of justice institutions would help China respond to its economic challenges and achieve sustained and inclusive growth. An efficient, accessible and high quality justice system contributes to greater protection of legal rights, foster trust and confidence in justice institutions and promote effective policy performance. Trust in the justice system will build reservoirs of legitimacy for other institutions and allow for the consolidation of the rule of law⁸⁹. In China, according to international data, the implementation of the rule of law⁹⁰ remains a concern⁹¹. The CPC has taken remedial steps by emphasising as the central theme of the 2014 CPC Central Committee the notion of "Ruling China according to Law". The Supreme People's Court in its fourth five-year plan has further highlighted the notion of procedural guarantees in China's forthcoming judicial reform.

The quality of the justice system also serves as a crucial determinant of a sound business environment, as well as economic growth and social development.⁹² To these ends, China is embarking on an ambitious programme of judicial reforms. Indeed, despite China's high economic growth, valuations of China's financial assets tend to be cheaper than in other emerging markets, which may reflect investors' concerns related to the lack of the "rule of law". Successful judicial

⁸⁷ Ubaldi, 2013, Open Government Data

⁸⁸ OECD (2005).

⁸⁹ Hough M., Jackson J. Bradford B., Myhill A. and Paul Quinton P. (2010)

⁹⁰ China constitutionally recognises the concept of the rule of law since 1999

⁹¹ World Justice Project (2014); BTI (2014)

⁹² OECD (2013h); North (1999)

reforms are also seen preconditions for other key reforms such as SOE privatisation and land ownership reforms.

Strengthening property rights

Strong protection of land ownership and intellectual property and effective enforcement of those rights are crucial determinants to the quality of business and investment environment⁹³. Indeed, securing property rights is particularly important to support private sector development, as it improves access to credit for small and medium enterprises and foster financing opportunities⁹⁴. In this context, China reformed its Property Rights Law in 2007 reform building a modern secured transactions system⁹⁵. Yet, property rights indicators for China have decreased between 2011 and 2013⁹⁶, which suggests disincentives to save and invest and hindrances to efficient production and distribution of its goods and services⁹⁷. Taking account of this drawback, both the Fourth Plenum and the National Intellectual Property Strategy (2014-2020) highlighted the need to strengthen the enforcement of property and IP rights. Fostering confidence in China's land ownership and intellectual property rights regimes requires effective courts, including in the newly established IP courts, which could clarify the application of the law and uphold the legal protections. In addition, given the growing number and complexity of economic and commercial disputes⁹⁸, ensuring coherent application of the law across the country (with over 3400 courts) will create the conditions for capital investment by enhancing legal predictability, transparency and uniformity.

Improving the quality of contract enforcement

The quality of contract enforcement is another important element of a business-friendly environment, which can help reduce informality, improve access to credit and support a level playing field for market participants⁹⁹. China's courts constitute the main enforcement mechanism for contractual relationships. Despite China's positive overall ranking in the latest World Bank's "Doing Business" report¹⁰⁰, however, large disparities are apparent at subnational level. For example, the cost of the procedure may vary between 9% (Shanghai) to 41.8% (Hefei) of the claim and the time to resolve a dispute in Changchun could take as long as 540 days, compared to 112 days in Nanjing¹⁰¹. The reduction of the excessive length of proceedings across the country should therefore be considered a priority area for reform.

Towards a more independent and performance-oriented court system

Judicial independence is a crucial determinant of judicial quality and trust¹⁰². Impartiality ensures that judges do not unduly promote the interests of one party to a case. China's forthcoming judicial reform is placing increasing importance on the independence of the judiciary, including decreasing

⁹³ OECD (2013i)

⁹⁴ World Bank (2015)

⁹⁵ World Bank (2014)

⁹⁶ World Economic Forum

⁹⁷ OECD (2013h); World Bank

⁹⁸ ADB (2008)

⁹⁹ World Bank (2014)

¹⁰⁰ China's position equates 19 out of 148 countries. On average, it takes 453 days to enforce a contract, with the cost in court and legal representation fees representing 16.2% of the claim, World Bank (2015)

¹⁰¹ World Bank (2015)

¹⁰² EU Justice Scoreboard

the dependence of trial courts and judges on local government for funding, salaries and tenure, and differentiating the judiciary from the general civil official structure. Introducing an independent judicial selection committee would also help ensure impartial and effective selection, promotion and evaluation process. Adequate compensation would lower the risk of judicial corruption and raise capacity by attracting and retaining judicial talents. It would also be important to review the accountability framework and supplement disciplinary mechanisms with strong procedural guarantees.

Finally, it would also be important to invest in the efficiency of the proceedings, effective management of resources (human, material and financial resources), judicial capacity including through professional development and establishing quota on the number of judges in relation to inhabitants, and the implementation of information technology measures in China, in line with the proposed judicial reform. The creation of specialised jurisdictions, such as intellectual property courts or the Environment court in China, has the potential to enhance justice efficiency by reducing the backlog of ordinary courts. Efforts to streamline the decision-making process, including within the internal functioning of the Judicial (court adjudication) committees, would allow reducing the length of proceedings and enhancing operational independence of each judge. Other measures are designed to promote an open and transparent judiciary through the use of ICT, such as online judicial information and database. Looking ahead, the country may also consider engaging with judges, court staff, court-users and other stakeholders to design court quality policies and reviewing their court performance indicators based on objective values such as efficiency and timeliness. It would also help to define and measure the quality of court services and to advance the sustainability of current justice reforms.¹⁰³

4.3 Strengthening fiscal management at subnational level

Subnational governments in China are responsible for providing and financing the vast majority of public services, as well as infrastructure, with limited financial support from central government.⁷⁷ Indeed, budgetary expenditures are highly devolved across all tiers of government (Table 4.1), with central government accounting for only 15% of the total, a proportion that has been trending downward. Under the current intergovernmental assignments, it is the county level that is responsible for the provision of basic education, which, under Chinese law, is compulsory and free-of-charge for the first nine years. Counties are also responsible for the delivery of basic health care. Most unusually, income maintenance functions (pensions, unemployment insurance, and social welfare) are the also responsibilities of governments at the prefectural and county levels. Indeed, the budget law confers quite broad expenditure responsibilities to each level of subnational governments, but they are far from being clear, mostly because of the extensive concurrent responsibilities among different levels of government.

Table 4.1. Distribution of budgetary expenditures by level of government (2013, % total)

Level of government	Education	Health	Social security and employment
Central	5	0.9	4.4
Province	14.7	9.4	20.4

¹⁰³ International Framework for Court Excellence; European Commission of the Efficiency of Justice (CEPEJ)

Prefectures	19.3	21.8	23.4
Counties	61	67.9	51.8

Note: 2006 was the last year for which capital spending was reported separately from recurrent spending. Counties' share includes that of townships. All expenditure figures at subnational level include transfers.

Source: Ministry of Finance.

Sub-national government revenue raising powers require better alignment with spending mandates

The assignment of expenditure responsibilities among central and subnational governments are in contrast to their revenue-generating capacity and the intergovernmental transfer system (Table 4.2). Municipal governments (at prefecture level) have few taxing powers, with local taxes covering only 12.2% of local expenditures. This means that they have to rely on receiving a share of revenues from taxes collected locally under a regime where sharing rates are set by higher level governments. The reliance on transfers is particularly marked at the level of the rural counties and county-level cities. Local governments can impose fee-based income from businesses, for example pollution charges, but these fees are assessed at very low levels.

Table 4.2. Aggregate trends in revenues and expenditures by tier of government (percent of total)

	1993	1998	2002	2006	2010	2013
Revenues						
Central	22	50	55	53	55	47
Provincial	13	10	12	12	10	11
Prefecture/Municipal	34	20	16	17	15	16
County and Township	32	20	17	19	21	26
Expenditures						
Central	34	29	31	25	18	15
Provincial	11	19	20	18	17	15
Prefecture/Municipal	29	24	21	23	23	23
County and Township	27	28	29	34	43	47

Note: Figures include only on-budget revenue and spending.

Source: MOF Compendium of Local Fiscal Statistics, various years; MOF Chinese Finance Yearbook 2011.

The total tax revenues of provinces are generally a fairly similar proportion of local GDP. Therefore, given the disparities in GDP across provinces, equalisation of services will require a sizeable increase in transfer payments to lower-income areas. To date, the need for transfers has been assessed mostly based on registered rather than actual population in a province. The problem is that the actual population is generally lower than registered population in low-income provinces, given that migrants remain registered in their home province regardless of where they live. An additional problem is that in China intergovernmental transfers (including tax sharing arrangements) are based

on the gap between “standard expenditures (needs)” and “standard revenues” but Chinese authorities do not make calculations based on regional cost differentials. Hence, Chinese authorities may consider fine-tuning the transfer system to make it more asymmetric, with metropolitan local governments treated under a different regime than other local governments. The vertical-share entitlement of metropolitan-area governments would be lower because of their greater taxable capacity. The resulting loss to metropolitan local governments would be compensated by increasing taxing powers. A hard budget constraint with no “back door” for financing deficits would be part of this strategy.

To address these funding issues, China could broaden the municipal tax base to reduce the dependency on land leases. As land sales have been generating revenues of 5-7% of GDP annually over the past few years, it is clear that they cannot be replaced by a property tax alone. Property taxes typically produce revenues of no more than 2% of GDP in developed countries and much less in developing countries.¹⁰⁴ At present, China already collects about 1.5% of GDP from the four land- and real estate-related taxes. The experience of OECD countries suggests, however, that recurrent taxes on immovable property is the most appropriate tax for subnational governments, and provides an on-going source of revenue. In the particular case of China, a recurrent tax on residences would provide an incentive for cities to accept new residents, as well as help finance urban public services. Moreover, innovative approaches are needed to create a framework for the development of land and housing markets to produce a more stable, sustainable revenue stream for municipalities. Opening up the vast tracts of unutilised land currently sitting in the many development zones to private investment in low-cost housing could be a way to make better use of land taxes.

At the very least, subnational governments could be given some discretion over tax rates for a few selected taxes, such as vehicle tax and license fees. Municipalities could also be permitted to piggyback or levy surcharges on central or shared taxes like the corporate income tax and the personal income tax. Another option might be to introduce some differentiation in tax-sharing rates. In this way, large municipalities would have a bigger share of the value-added tax (VAT)¹. The revision of the intergovernmental transfer system should also ensure matching responsibilities with funding at subnational level, so as to reduce perverse incentives in over-relying on fees and fines as a way of funding rather than ensuring compliance with the law.

Reforms needed to improve budgetary transparency and efficiency

Municipal governments’ reliance on extra-budgetary resources has led to a fragmentation of municipal budgets that renders macroeconomic control difficult. The rules for management and reporting on extra-budgetary funds (EBF) are usually looser, especially at the subnational levels, and information is not always reported in full. Revenues are collected by different agencies and local governments, and information is scattered in different channels. One salient feature of the extra-budgetary finance practices is *their ad hoc* character. They were created by different agencies in response to the emergence of specific needs that could not be covered under the budget, the social security funds (SSF) for instance. Urban development investment corporations (UDICs) have been instrumental in helping cities achieve and maintain high levels of investment in infrastructure. Unfortunately, they have also contributed greatly to the opacity of municipal finance. A first critical step is to introduce a transparent accounting system that covers all on and off-book revenues with strict separation of operating and capital accounts.

¹⁰⁴ Bahl, *et. al.* 2013.

The government needs to regain control over aggregate fiscal discipline by assigning the oversight authority and responsibility over all government funds to a single institution, most likely the Ministry of Finance. Many of the problems of uncoordinated development in China has stemmed from the inability of the Ministry of Finance (and the subnational finance departments) to act as the sole fiduciary agent of government over all public funds. To enable the Ministry of Finance to play this oversight role, the reform requires political support from the top leaders to adjust the distribution of competencies across central institutions and to elevate the Ministry of Finance, putting it firmly in charge of all fiscal resources. At the same time the National Audit Office should expand its auditing of budget implementation to include the comprehensive budget as well as public debt management. Another innovation would be to adopt a financial management information system (FMIS) to strengthen its public expenditure management by improving recording and processing of government financial transactions and also facilitating efficient access to reliable financial data.

To improve supervision and management of local governments' debt, local governments should be required to report regularly on their direct and contingent liabilities including those of the UDICs, loan servicing as well as their borrowing plans.¹⁰⁵ Reforms in this direction could draw on the experience of the monitoring and regulatory framework introduced by the Ministry of Finance in 2011. Whatever the mechanism adopted by Chinese authorities, it will be necessary to send the message that rules need to be respected. In OECD countries, when fiscal rules are broken, central governments impose financial sanctions, obliging subnational governments to offset the breach in future budgets (e.g. Belgium, Germany, Italy and Spain). Other sanctions like reducing transfers or shared taxes (e.g. Canada, Denmark and Switzerland) could be introduced.⁷⁹

Both central and local governments in China would benefit from engaging in better medium-term budgeting and investment planning, as also recommended in the OECD Principles of Budgetary Governance. A medium-term budget framework encourages governments to anticipate policy lags and to initiate reforms that will come into effect only after two or three years.¹⁰⁶ The most fundamental aim of good medium-term budgeting is to ensure the consistency of bottom-up expenditure and revenue policies with top-down aggregate fiscal policy. Medium-term budgeting is therefore, above all else, a mechanism for strengthening the centre's capacity to enforce top-down limits on aggregate expenditure as the experience of Chile shows.¹⁰⁷ The experience of OECD countries – for instance the Netherlands, Denmark, France, Korea, Sweden, and Chile – suggests that the impact of a medium-term perspective in the budget depends on the credibility of the expenditure estimates and ceilings, as well as how this information is used by decision-makers and members of society.

¹⁰⁵ Wong, 2012.

¹⁰⁶ Harris, *et al.*, 2013.

¹⁰⁷ Hawkesworth, *et al.*, 2013.

Key recommendations

- Reinforce good governance and the rule of law in the country, including by:
- Strengthening judicial capacities by reviewing the ratio of judges to inhabitants, fostering professional development (including for members of the Judicial committees) and reviewing the level of pay.
- Promoting technological facilities and court operations through efficient case filing, distribution and trial management systems as well as access to justice through e-court services).
- Increasing the transparency and efficiency of the judicial decision-making process (Judicial Committee) and the integrity framework.
- Improving court administration and governance practices by reviewing the design and monitoring process of court quality policies and ensure that performance indicators are based on well-defined and objective goals.
- Introducing a clear and transparent selection and appointment process by differentiating judicial selection and administrative clearance processes.
- Better align subnational governments' revenue-raising capacities with their spending mandates.
- Encourage further experimentation by subnational governments with initiatives to improve transparency and civic participation while broadening those which have proved successful.
- Promote a culture of integrity in the public sector through raising awareness and coherent application of up-to-date standards in codes of conduct, including managing conflicts of interest, using official information and resources.
- Increase the verification and transparency of asset disclosure by public officials, including public reporting.
- Facilitate whistle-blowing through effective oversight of protection mechanisms, and enhance transparency in reporting and tracking of whistle-blower action and retaliation.
- Improve uniformity of the implementation of best practices in the civil service across all regions.
- Ensure sufficient capacity – in particular in the National Audit Office – for auditing the reliability of financial and non-financial performance information as crucial inputs into decision-making and policy-making processes in close co-ordination with subnational audit offices to improve the effectiveness and coherence of government-wide oversight and accountability.

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OCDE Paris
2, rue André Pascal, 75775 Paris Cedex 16
Tel.: +33 1 45 24 82 00