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**China: Long-Term Development Issues and Options,
Past and Present**

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China: Long-Term Development Issues and Options, Past and Present¹

Abstract

This paper takes off from a 1985 World Bank report entitled *China: Long-Term Development Issues and Options*. The first part of the paper briefly revisits that report – why it was produced, and how well its analysis has stood up to the test of time.

The second and main part of the paper also looks at long-term development issues, but starting from where China is now. It begins by considering the pattern of growth that would be needed for China to catch up with the developed countries, with higher total factor productivity (TFP), a different sectoral structure and a new relationship with the world economy. It then considers the economic system reforms required to achieve that pattern of growth and the social policies required to ensure that the benefits of growth are broadly shared.

One requirement for higher TFP is better management of China's huge stock of public capital. Rearranging the ownership of state-owned enterprises (SOE) is a promising approach, but the economic effectiveness of the current experiments should be evaluated more scientifically, as should the relative performance of directly-controlled and market-regulated SOEs, especially in innovation. Another requirement for higher TFP is greater competition among firms: China has good competition laws, but needs to strengthen their enforcement, especially on SOEs.

China is now far from the relatively low level of inequality to which a socialist country should aspire. It could gradually reduce inequality by more redistribution of income through taxation and public spending and improved education and labour market policies. Rearranged public ownership and more competition would help to reduce perceptions of unfairness. China should also continue to improve its system of social protection, focusing on protecting people rather than protecting firms or jobs, and paying careful attention to long-term financing issues.

¹ This paper represents the personal view of its author, and should not be interpreted as the view of the World Bank or of any of the other authors of the 1985 World Bank report. I am indebted to Edwin Lim, Cyril Lin and Gene Tidrick for all that I have learned from discussions with them over many years about the issues addressed in this paper, as well as for their helpful comments on an earlier version of the paper.

Introduction

In 1985, at an early stage of China's economic reform and opening, the World Bank prepared a major report on the country's economic future. This paper, by an author of that report, was commissioned by a Chinese journal as a contribution to the celebration of 40 years of reform.² The journal also reprinted the Chinese-language summary of the World Bank report, which is thus often referred to in this paper and is readily available in English.³

The first part of this paper is retrospective: it explains briefly why and how the 1985 World Bank economic report was written, what information and advice it contained, and what it got wrong. The second part is forward-looking: it discusses some current long-term development issues for China in the same framework as the summary of the 1985 report – pattern of growth, managing the economy, and social policies – focusing on the need for better management of public capital, intensification of competition among firms, reduction of income inequality and improvement of social security.

1. World Bank 1985 report in retrospect

Readers of the summary of the 1985 report can and should form their own impressions. It may be helpful, however, to provide some additional background information and to pick out some aspects of particular relevance to China's subsequent economic experience.

1.1 Motivation, content and authorship

As the President of the World Bank explains in his Foreword, 'the idea for this study originated during my visit to China in 1983. In Beijing, I had the opportunity to meet with Chairman Deng Xiaoping and Premier Zhao Ziyang. ... We talked about the national aim to raise China's per capita income to US\$800 by the year 2000, ... Out of these discussions in Beijing came the agreement that the World Bank would undertake a study of some of the key development issues that China might face in the next twenty years. In particular, this study would examine, in light of international experience, some of the options for addressing these issues.'

The 1985 report was a logical successor to the World Bank's first (1981) economic report on China.⁴ Entitled 'China: Socialist Economic Development', that report had documented, with international comparisons, the country's achievements during 1948-78 – in poverty reduction, infrastructure and industrialisation – as well as describing past shortcomings and discussing current problems. The 1985 report, too, stressed the 'vital need to guard against losing the

² *Jingji Shehui Tizhi Bijiao* Vol. 98, October 2018, pages 1-30.

³ The summary is part of the main report (World Bank 1985), whose English version was published and is available in libraries, as well as online at <http://documents.worldbank.org/curated/en/993081468746712782/pdf/multi-page.pdf>. Its annexes are at <http://documents.worldbank.org/curated/en/docsearch/report/5206> and its background papers (listed in the main report) are available individually online as World Bank staff working papers.

⁴ That first report was later (in 1983) published in both English and Chinese. Its English version is available at <http://documents.worldbank.org/curated/en/892681468215689422/pdf/multi0page.pdf>

strengths of the existing system – its capacity to mobilise resources, as well as to help the poor – in the course of overcoming its weaknesses’.

The 1985 report offered a forward view on a wide range of development issues and contained a lot of material: a 10-chapter main report, 6 annexes and 9 background papers. The summary (part of the main report) conveys the range of issues covered – in agriculture, energy, transport, industry, trade, urbanisation and education – but is very brief. Its balance also differs from that of the main report, with most of the sectoral issues packed into its ‘pattern of growth’ section and more space devoted to system reform and social issues.

The report took two years to produce and involved over 50 World Bank staff and consultants.⁵ Nine of them contributed to the main report, of which I was the main architect and coordinator, author of the first two chapters and a contributor to other chapters. I also wrote the summary, though with important inputs from the team’s leader, Edwin Lim, especially in the economic management and social issues sections (which drew on our jointly authored chapter 10).

Our work included nine weeks of visits to China in 1984, with time spent in Gansu, Hubei and Jiangsu as well as in Beijing, and a further visit in March 1985 to discuss a draft of the report. The quality of the report benefited greatly, as its Preface acknowledges, from the information, comments and suggestions provided on these visits by Chinese friends and colleagues in central and local government agencies, research institutes and universities.

1.2 What were the report’s main suggestions?

The final report was widely circulated among government officials and sold in bookshops.⁶ Its Chinese readers are likely to have been interested in four aspects of its content.

(i) Sector-specific issues. These issues included the rising animal-product share of food intake, over-specialisation in higher education, priorities for energy conservation, the need for a road transport strategy, and the optimal allocation of economic activities among cities of different sizes. The report offered a lot of international-evidence-based advice on these important issues. We tried to enhance the usefulness of this advice by tying much of it together in the projections of a multi-sector model, benefiting from our interaction with a larger Chinese team modelling the country’s development prospects to the year 2000 (Wang and Li 2018: ix-x).

(ii) Early and middle-stage system reform issues. These issues mainly concerned choices about the direction and speed of reform of prices, materials allocation, labour allocation, investment decisions, and management of foreign trade. They were all resolved later in ways that are now

⁵ Listed in the Preface and on the title page of the main report. The nine authors of the main report, as listed on its title page, were Edwin Lim (Chief of mission), Adrian Wood (Deputy chief of mission), Ian Porter, William Byrd, Timothy King, Gerhard Pohl, Robert Taylor, Gene Tidrick and Wouter Tims.

⁶ In the words of Wu Jinglian (Wu and Ma 2016: 144-5), ‘The senior leaders themselves not only carefully read the report, but also required that officials in the economic administration departments study it as well.’

taken for granted in China's economic system, thanks to the work of many Chinese economists and policy-makers, but at that time were highly controversial.

On most of these issues, we argued for sustained but gradual liberalisation. We were nervous, however, about two-tier pricing, which we said should 'probably be only a transitional means of reforming the price and material allocation systems' (World Bank 1985: 177). It might have been a mistake to liberalise prices completely at that point (Weber 2018), but we worried about the unfairness of two-tier pricing, including the incentives for corruption.⁷

(iii) Broad sectoral balance. The report argued that system reform would require and cause the broad sectoral structure of China's economy to evolve in a way that differed substantially from the government's expectations.

The official target at the time we were writing the report was to quadruple the gross value of agricultural and industrial output between 1980 and 2000. As the 'sectoral balance' section of the summary explains, this focus on expansion of material production perpetuated the neglect of the service sectors in China (and in the Soviet Union). There was a lack of recognition that the market regulation, enterprise autonomy and greater specialisation needed to raise efficiency would require major expansion of commerce, transport and business support services. Nor was it recognised that greater influence of household choices on market demand would stimulate a large increase in the supply of personal services.

So, although the long-term projections in our report explored the implications of the official 'quadrupling' target, they also explored – and recommended – a more balanced development path with greater emphasis on services (including infrastructure). The difference is illustrated in Table 1, which refers to the sectoral structure of employment. In the 'balance' projection for 2000, the employment shares of agriculture, mining and manufacturing are lower than in the 'quadruple' projection and the employment share of services is substantially higher. The balance projection achieves the same growth of GDP as the quadruple projection, but with less investment and hence more consumption.

The table also shows China's actual structure of employment in 2000, which is much closer to the balance projection than to the quadruple projection.⁸ This closeness must be partly a natural result of the market forces noted in our report but may also be partly due to changes in official plans and policies. As the last column of Table 1 shows, China's service employment share has since risen further, and by 2014 was similar to the average of other East Asian developing countries (Wood 2017, Table 6).

⁷ Full liberalisation of prices did not become China's policy until the Central Committee Decision of 1993. I had tried to encourage faster price reform by reporting that Vietnam had succeeded in liberalising almost all prices while simultaneously reducing overall price inflation (Wood 1989).

⁸ It would be even closer with adjustment for the differences in 1981 between the data series used: the actual agriculture share in 2000 would become 52.5% and the actual service sector share 33.0%.

Table 1. Employment structure and projections for China (%)

	Actual 1981	Projected for 2000		Actual 2000	Actual 2014
		Quadruple	Balance		
Primary	71.1	60.0	53.2	50.9	33.6
Manufactures	14.0	18.8	15.4	14.5	18.2
Services	15.0	21.2	31.4	34.6	48.2
Total	100.0	100.0	100.0	100.0	100.0

Sources: for 'actual 1981' and 'projected 2000', World Bank (1985, Annex 4); for 'actual 2000' and 'actual 2014', database for Wood (2017).

Notes: 'primary' is agriculture plus mining (which is in 'heavy industry' in Table 4 of World Bank (1985)); 'services' includes all sectors other than primary and manufacturing.

(iv) Longer-term system reform issues. The report outlined a vision of how a mainly publicly owned market economy might be organised and managed efficiently. It also emphasised the need for parallel social system reforms to mitigate the greater inequality and insecurity that a market economy would create.

The 'managing the economy' section of the summary explains the first of these suggestions, building on the idea of 'invigoration of state-owned enterprises' in the 1984 Central Committee Decision. To motivate them appropriately and to separate them from government, we proposed that state-owned enterprises should be turned into joint stock companies controlled by boards of directors, and that the ownership of their shares should be dispersed among different public institutions with an interest mainly in the profits of these companies.⁹ We also emphasised the need for competition and for improvement of accounting and legal systems, and we described a system of indirectly implemented planning.

The 'social issues and policies' section of the summary sets out the second of our longer-term system reform suggestions. It argues for progressive taxation to offset rising income inequality and for a modern social security system to tackle the hardship that would otherwise be caused by unemployment between jobs and by illness or old age for people no longer tied for life to specific enterprises. It also argues for state grants to redress the deterioration of education and health services caused by the production responsibility system in poorer rural areas, and for allowing people to migrate away from such areas.

⁹ This proposal was later elaborated in Wood (1991) and Wood (1993).

1.3 What did the report miss or get wrong?

In retrospect, it is easy to identify issues to which our report should have given more emphasis, including pollution, the risks of corruption, and the fiscal relationships between different levels of government. But three errors and omissions in particular deserve mention.

One is that our projected 1980-2000 5% growth rate of China's per capita GDP is much lower than the 8-9% actually achieved. However, 5% was then the government's target (linked to the quadrupling of gross agricultural and industrial output) and was regarded by many people inside and outside China as unrealistically high. We took this growth rate as given in most of our projections, though we explored different ways of achieving it.¹⁰

A second is that, although the report argues for foreign private investment, it says nothing about big domestically-owned private firms, which became important later. However, it emphasises the economic value of entrepreneurship and mentions that 'many individual enterprises could ... grow rapidly to medium size, if allowed to do so, and could be an important dynamic force in the economy'.

The third is that, although the report recognised the scope for China to increase its exports of manufactures and to diversify into machinery and metal products, it greatly underestimated the actual expansion of trade. Our projected 10-11% ratio of exports to GDP in 2000 is half of the actual ratio, which in conjunction with our under-projection of GDP massively under-projects the growth of China's exports (even before it joined the WTO in 2001). We simply failed to foresee the subsequent rapid progress of globalisation.¹¹

2. Long-term development issues and options now

The first sentence of the summary of the 1985 report still seems accurate: 'China's ultimate economic objective is to catch up with the developed countries, while maintaining a socialist system in which the benefits of prosperity are widely shared.' Many issues and options related to that objective still need to be considered, too, albeit from a much higher starting point. A few of them are discussed below, under the same headings as in the 1985 report's summary: pattern of growth, managing the economy, and social issues and policies. A broader range – including fiscal, environmental, demographic, urban and regional issues – is discussed in Lim and Spence (2011) and in WB-DRC (2013).

¹⁰ The actual growth rate was close to what would have been projected in our balance case if we had assumed the actual ratio of investment to GDP over this period. The actual average investment ratio during 1981-2000 was 37.2% (based on World Development Indicators) and the incremental capital-output ratio in the balance case was 4.0, implying GDP growth of 9.3% per year, which with population growing at an average 1.3% per year implies GDP per capita growth of 8.0%.

¹¹ The biggest single specific reason for under-projecting China's manufactured exports was failure to anticipate the scope for splitting up manufacturing processes and off-shoring their labour-intensive elements within global value chains (Wood 2018: 985).

2.1 Pattern of growth

How much further does China need to go in order to catch up? The first row of Table 2 shows that at purchasing power parity the per capita GDP of the land-scarce developed countries of Western Europe and Japan (whose dense populations make them more relevant comparators than richer land-abundant countries such as the United States) is on average three times as high as that of China, down remarkably from twelve times as high when the World Bank report was written in the early 1980s.¹² However, the proportion of people who work is larger in China than in developed countries: the more economically appropriate measure of GDP per worker in the second row of the table is four times higher in the land-scarce developed countries than in China and would need to grow 4 percent per year faster in China to catch up by 2050.

Table 2. Output and input gaps 2014

	China	Land-scarce developed countries	Developed/ China ratio	Ratio in 1981
GDP per capita (US \$000 at PPP)	12.5	38.7	3.1	11.8
GDP per worker (US \$000 at PPP)	21.5	82.9	3.9	13.6
Average adult years of schooling	8.0	11.2	1.4	1.4
Capital per worker (US \$000 at PPP)	86.9	388.4	4.5	27.8
Total factor productivity (USA = 1)	0.43	0.81	1.9	2.9
Export quality index (world average = 1)	0.66	1.25	1.9	1.5

Sources: Penn World Tables 9.0 (<https://www.rug.nl/ggdc/productivity/pwt/>), Barro-Lee database (<http://www.barrolee.com/>), Feenstra and Romalis (2014, Table 1).

Notes: 'land-scarce developed countries' is weighted average of Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Portugal, Spain, Switzerland, UK; the measure of GDP in this table is the rgdpo variable in the Penn World Tables (using the alternative rgdpe, cgdpo and cgdpe variables yields similar results); average years of schooling for 1981 refers to 1985 and for 2014 to 2010; export quality index for 1981 refers to 1987 and for 2014 to 2007.

The remaining rows of Table 2 show in accounting terms what that catch-up will require. One requirement is increased education: average adult years of schooling in China are now 70% of the land-scarce developed country level, but this gap, due mainly to China's smaller proportion of college graduates, has not narrowed since 1981, despite the rise in China's enrolment rates. A second requirement will be to increase the amount of capital per worker much faster than in the developed countries, which will require China to continue to spend a relatively high share of its GDP on investment but also to use its capital more efficiently.¹³ A third requirement will

¹² There is debate about the accuracy of purchasing power parity calculations, especially for China (Feenstra et al. 2013), but general agreement that they are more useful for international comparisons than calculations based on market exchange rates.

¹³ Because the rate of growth of the capital stock is by definition the share of investment in GDP multiplied by the ratio of GDP to the capital stock (or the inverse of the aggregate capital-output ratio).

be to close the gap in total factor productivity, which in China is now half of its level in the land-scarce developed countries.¹⁴

China has narrowed the total factor productivity gap since 1981 (when the ratio was one-third), thanks to improved efficiency as a result of system reform and openness to technology imports, but the next stage may be harder. Measured total factor productivity depends not only on the volume of output extracted from each unit of input, but also on the price the output commands in the market. The export quality index in the last row of Table 2 suggests that the total factor productivity gap now mainly reflects the lower perceived value to customers of Chinese than of developed-country goods.¹⁵ Closing this price gap, which seems to have widened since the 1980s (perhaps reflecting faster growth of intangible assets in developed countries: Haskel and Westlake 2017), could be more difficult than closing the physical productivity gap.

Table 3. Sectoral structures of China and developed countries 2014 (%)

	China	Land-scarce developed countries
Exports (value added)		
Primary	2.8	7.4
Manufactures	84.6	64.3
Services	12.6	28.3
Total	100.0	100.0
Production (value added)		
Primary	14.9	2.4
Manufactures	28.3	16.0
Services	56.9	81.5
Total	100.0	100.0
Employment		
Primary	33.6	3.6
Manufactures	18.2	14.5
Services	48.2	81.8
Total	100.0	100.0

Source: Wood (2017)

Notes: sectors defined in notes to Table 1; 'land-scarce developed' defined in notes to Table 2.

In catching up, the sectoral structure of China's economy will need to change further. Table 3 compares the shares of primary goods (agriculture and mining), manufactures and services (all other sectors) in exports, GDP and employment in China now with the corresponding average

¹⁴ The total factor productivity data used here include human capital as well as physical capital and labour in their measure of inputs (Feenstra et al. 2015: 3176-9).

¹⁵ Feenstra and Romalis (2014) estimate export quality from the relationship between the prices and market shares of a country's exports in particular sectors: high sales despite a high price are taken to indicate high quality.

shares in land-scarce developed countries.¹⁶ As in the 1985 World Bank report, the message from this comparison is the importance of service sector expansion. In land-scarce developed countries the share of services in exports is 16 percentage points higher than in China, in GDP 25 percentage points higher, and in employment 34 percentage points higher.

The greatly reduced primary – mainly agricultural – employment share in a developed China will thus be offset almost entirely by a rise in the employment share of services, with much less change in the manufacturing share. As more workers are drawn out of agriculture and China becomes even more urbanised, the productivity of labour in agriculture will move closer to that in manufacturing, but it will also be important to ensure that – as in the land-scarce developed countries – labour is no less productively employed in services than in manufacturing.¹⁷ As the employer ultimately of four-fifths of China's workers, the service sectors must be allowed full access to skilled labour, capital and technology.

The process of catching up will involve a fundamental change in China's relationship with the world economy, because the achievement of a developed-country level of education will shift China's comparative advantage from labour-intensive to skill-intensive goods and services, as happened over the past three decades in the Republic of Korea (Wood 2017). Other land-scarce developing countries will – and are beginning to – occupy the labour-intensive manufacturing space vacated by China. In China, this shift in comparative advantage will require far greater structural change within than between the broad sectors of Table 3: skill-intensive activities, firms and subsectors will need to expand and labour-intensive ones to contract (absolutely as well as relatively, because the total labour force will be shrinking).

This shift in comparative advantage will bring China into competition with the now-developed countries, which specialise in skill-intensive activities, and will alter not only the composition of trade between China and developed countries, but also incentives for transfer of technology. Over the past few decades, developed-country firms have been glad to transfer labour-intensive technology to China within global value chains because this increased their profits by lowering their costs. These transfers were supported by their governments because they strengthened developed-country comparative advantage in skill-intensive manufacturing (Wood 2017). As China becomes a competitor in skill-intensive activities, however, developed-country firms and governments will become less willing to transfer technology – as is already happening – so that China must rely increasingly on developing its own technologies.

To a lesser extent, China's relationship with the world economy will also be altered by the Belt and Road Initiative. This initiative will increase the overall volume of China's trade (offsetting

¹⁶ In land-abundant developed countries, the primary shares of exports and output are higher (Wood 2017).

¹⁷ Table 3 shows that the ratio of the GDP share to the employment share is only slightly lower for services than for manufacturing in the land-scarce developed countries, implying that output per worker is similar in services and manufacturing. The same ratio is considerably lower in China, implying that output per worker in services is far below output per worker in manufacturing. The measure of output is value added, so that lower output per worker must reflect less capital per worker, less skill per worker, or lower returns to capital and/or skill.

a possible global rise in protectionism) and change its geographical directions, but is unlikely either to modify or to assist the underlying shift in China's comparative advantage.

2.2 Managing the economy

China's achievements over the past few decades were due largely to reform of its system of economic management. A series of changes – guided from above and pushed from below – in the incentives, opportunities and constraints that face economic actors stimulated rapid growth. To catch up with developed countries over the next few decades will require further changes in incentives, opportunities and constraints, generated by deeper reform, the need for which is widely recognised in China and a comprehensive strategy for which was outlined in the 2013 Decision of the Third Plenum of the 18th Central Committee.

This section will focus on one key issue, which is the need (documented above) to close the gap between China and the developed countries in total factor productivity. As in much recent research, it will view a country's economy as an aggregate of firms and hence differences in performance among countries as reflecting differences in performance among firms (Syverson 2010). So for China, as for other countries, it will be necessary to improve the performance of China's best firms. It will be just as crucial, however, to improve China's other, less-good, firms and to keep their performance as close as possible to those of the best ones. What matters for China's catch-up is increasing the total factor productivity of its average firm, which leaders are never taken to visit on their inspection tours!

Improving the performance of China's best firms will often require them to become successful global innovators – introducing products or processes that are better than any others in the world, usually by small improvements, though occasionally by major steps forward. A few Chinese firms in some sectors – notably Huawei in communications equipment and Tencent in social media – are already global innovators, and others are moving in that direction, but so far these are a small minority (Fu 2015). Moreover, although China now ranks second in the world in the scale of its R&D spending and patenting, the productivity of its R&D and the quality of its patents lag behind (Fu 2015, Zaharia 2018). Nor has China recently produced anything to match its earlier Four Great Inventions (compass, paper, printing, and gunpowder).

In all countries, there is a wide spread of performance among firms: in the US, even within narrowly defined manufacturing industries, the total factor productivity of a firm at the 90th percentile is on average twice that of a firm at the 10th percentile (Syverson 2010). The spread of performance among firms in China is unusually large, by comparison both with the US (Hsieh and Klenow 2009) and with Japan (Ito et al. 2008). Indeed, Hsieh and Klenow (2009) calculate that if the dispersion of firm performance in manufacturing had been as low in China as in the US, the average gap in total factor productivity between the two countries in 2005 would have been 30% smaller – though in 1998 this figure would have been 50%, suggesting progress in reducing dispersion among firms in China.

Although global innovation in its best firms will be important to China's catch-up, improving the performance of all China's firms will require constant local innovation – introducing better products or processes that are new to the firm, if not to the world, including better management techniques, which affect total factor productivity (Bloom et al. 2017).¹⁸ Moreover, the forces that drive global innovation and local innovation are basically similar: firms innovate in response to the needs of customers and the actions of competitors when they see commercial advantages to doing so, or commercial risks – including the risk of bankruptcy – if they fail to do so. Property rights are also essential: firms innovate only if they are confident that neither their ideas nor their profits – if they succeed – will be taken away from them.

The average total factor productivity of a country's firms depends on many things, including opportunities for spillovers across firms, the quality of human capital, the flexibility of input markets, and the nature of regulation (Syverson 2010, Bloom et al. 2018). Improving this average in China will thus depend on many aspects of economic management and policy, of which the following discussion will address only two: improving the management of public capital and intensifying competition in China's internal market.

Making better use of public capital

Public ownership of enterprises in China far exceeds that in any developed country, generating 30-40% of GDP (Tidrick 2013, Kovacic et al. 2016), and is seen by the government as a basic ingredient of socialism. There is much scope for debate, however, about whether and how a large state-owned enterprise (SOE) sector could help to reduce the total factor productivity gap between China and the developed countries. The performance of SOEs around the world has usually been poor (Tidrick 2013), and official thinking in China about SOEs has changed a lot in the course of the reforms, but the dominant view of China's policy-makers is apparently still that SOEs should lead the country's economic and technological catch-up.

It has been recognised in China since 1984 that in a socialist market economy most SOEs must be encouraged to seek profits and separated from regulatory and other functions of government. But as the World Bank 1985 report summary said, 'establishing independent and appropriately motivated enterprises may be the hardest single aspect of reform', and so it has proved. Large numbers of small SOEs were merged, sold or closed; from 1993, the remaining SOEs began to be transformed into modern corporations and sometimes listed on stock markets; and in 2003 responsibility for the capital of central non-financial SOEs was given to the State-owned Assets Supervision and Administration Commission (SASAC) under the State Council, and to similar institutions at lower levels of government (Tidrick 2013).

¹⁸ The greater dispersion of total factor productivity among firms in China than in the US is not explained by greater dispersion of management quality (Bloom et al. 2018(2)). Moreover, difference in management quality is estimated to explain only 13% of the gap in average total factor productivity between China and the US (Bloom et al. 2017). However, average management quality in China is lower than in the US, largely because fewer firms in China have high-quality management techniques (Bloom and van Reenen, 2010, Figure 2).

Although these reforms greatly improved its performance, the efficiency and innovativeness of China's SOE sector remains below that of its private sector. The average profit rate on capital of SOEs rose after the 1990s, but is still less than half the average rate in private enterprises, partly because some SOEs persistently lose money (Tidrick 2013, ASPI 2018). The average total factor productivity of SOEs also rose relative to that of the private sector, due partly to the exit of inefficient SOEs and partly to efficiency increases in continuing SOEs, but still lags that of the private sector (Hsieh and Klenow 2009, Alvarez et al. 2017). Many SOEs innovate, and in some sectors they are technological leaders, but on average SOEs invest less in R&D, collaborate less with other innovation partners, and extract fewer innovative outputs from their R&D inputs than foreign-invested and domestic private firms (Fu 2015, Fu et al. 2018).

Recognising the scope for further improvement, a new phase of SOE reform was initiated by the Third Plenum Decision of 2013 and elaborated in the 2015 'Guiding Opinions of the Central Committee and State Council'. Its distinctive feature is to shift emphasis from the management of state enterprises to the management of state capital by rearranging the ownership of shares in corporatized SOEs. This rearrangement is intended to weaken the links between SOEs and government departments (central and local), and hence to strengthen the incentive of SOEs to improve financial returns, to reduce pressures on them to pursue other objectives, and to reduce their ability to influence policies that might affect their performance.

The Decision and Guiding Opinions endorsed two different but complementary approaches to ownership rearrangement: using specialised public institutions to exercise the state's ownership role in SOEs through representation on their boards of directors; and mixing public with private ownership, for instance through selling shares in SOEs to private investors. Given the huge number of SOEs and the challenge of finding or creating suitable public ownership institutions, this reform is still in progress and information on what has been done is limited.¹⁹ At the central level, SASAC has delegated its ownership role in some SOES to holding companies or to other SOEs; it has transferred shares to social security funds; and it has allowed private investors to buy shares in SOE subsidiaries. At the provincial level, private-public schemes predominate, though some provinces are also using public ownership institutions.

There is apparently no evidence as yet on the effectiveness of these ownership rearrangements in improving the profitability, efficiency or innovativeness of the SOEs concerned (or of other enterprises in the markets in which they operate). As with earlier Chinese reforms, the schemes that have been implemented are often described as pilots but are not designed as randomised controlled trials and will be difficult to evaluate, especially because it will take several years for their full effects to emerge.

¹⁹ The next two sentences are based on reports in the English-language press. For example: 'SOE reform to step up a gear', <http://www.ecns.cn/news/economy/2018-07-19/detail-ifywhfmh2712839.shtml>; 'Corporate Reform of Central State-owned Enterprises is Complete: SASAC', *China Banking News* 25 April 2018; 'China to transfer state assets to social security funds', *China Daily* 19 November 2017; 'China SOE reform set to accelerate', *China Daily* 26 October 2017; 'Shanghai leads way on state enterprise reform', *Financial Times* 4 August 2016; 'SOE changes aim to improve efficiency', *China Daily* 5 November 2015.

It seems likely that these ownership reforms will strengthen the incentives of SOEs to improve their financial performance. It is less clear that their boards of directors will be given all the powers needed to achieve improved performance, for example choosing the chief executive or making large investment decisions. Perhaps the biggest question is whether these reforms will succeed in breaking the links between SOEs and other functions and interests of government – which undermined state holding companies in other countries, with the remarkable exception of Singapore’s Temasek (Tidrick 2013). Particularly hard is for any government to refuse help to an SOE at risk of closure, even if the public capital in it has already lost all its market value, because of the associated loss of employment.

In any event, the best strategy is clearly to persist with this new phase of SOE reform for several more years. Its effects should be systematically evaluated by funding research that compares the efficiency and innovativeness of SOEs with different patterns of public ownership, relative to the performance of privately owned enterprises, domestic and foreign. It is to be hoped that this research will find that rearranged ownership has improved SOE performance, though with some sorts of rearrangement being more effective than others, and so require only minor shifts in direction. But if it turns out that none of the rearrangements has yielded much improvement, a more basic rethink of the form and scale of public ownership will be needed.

The influence of government policies on strictly independent profit-seeking SOEs controlled by their directors would be entirely indirect – though taxes, subsidies, credit, information and indicative plans affecting all enterprises in a market. However, the Third Plenum Decision and Guidelines imply that purely indirect influence is appropriate only for some SOEs – especially enterprises with commercial objectives in competitive markets. Direct government influence on other sorts of SOEs is seen as necessary to achieve non-economic objectives and ‘to develop forward-looking strategic industries’. In many SOEs, in other words, the official view is that China should not leave decisions simply to directors seeking improvement of the financial performance of their own enterprises in response to market pressures and opportunities.

The total amount of public capital invested in the categories of SOEs that are believed to need direct control is huge, and direct control is likely to cause this capital to be used less efficiently than in profit-seeking SOEs in competitive markets, so it is important to make well-informed decisions about whether and when direct control is necessary. Non-economic objectives are achieved in other countries by enterprises without any public ownership, let alone direct control (Tidrick 2013): most of the world’s best military equipment is produced by profit-seeking firms in competitive markets; abuse of natural monopolies is prevented by regulation; market failures such as pollution can be corrected by taxes or subsidies; provision of services in remote areas can also be incentivised by subsidies.

Of most relevance to this paper’s focus on the catch-up of China’s TFP, however, is the belief of Chinese policy-makers that direct control of many enterprises in strategic sectors is essential to accelerate innovation. Top-down resource-push industrial policy, with SOEs required and funded to move in pre-identified new directions, has had strong appeal in many other countries, too, but experience suggests the need for great caution. Planned, publicly funded and broadly

disseminated research provides a vital foundation for all innovation and has yielded important new products, such as the touchscreen display (Mazzucato 2013), but there are many examples – including in China – of sector-specific failures (Kovacic et al. 2016, section 8.2).

The vast majority of successful innovations are made spontaneously by enterprises in response to the needs of customers and actions of competitors. The evidence on this point goes back a long way (World Bank 1985, Table 7.2), but is confirmed by much recent experience, ranging from Apple's iPhone to the commercial strategy that led to Huawei becoming the world's most prolific patenting firm (Fu 2015, ch. 11, Zaharia 2018). It suggests that, whatever their sector, China's SOEs will be more successful innovators if they are allowed to make their own choices, motivated by the search for profit, the avoidance of losses and market pressures.

China's policy-makers are probably familiar with this argument and with some of the evidence, but wish to maintain direct control of many SOEs. They are right to be impressed by the past growth of directly controlled SOEs – about 50 of SASAC's are among the world's 500 largest companies.²⁰ They may also be right to believe that China's future experience with SOEs, as in other areas of its success, will be different from that of foreign countries. But if this belief turns out to be wrong, catching up with the developed countries will require further changes in SOE policy. It will therefore be important to collect and analyse evidence on the comparative performance, especially in innovation, of directly and indirectly controlled SOEs.

Intensifying competition among firms

Competition is the source of most of the benefits of a market economy. Four decades of reform have made China's economy far more competitive, contributing to the rise in prosperity. To close the total factor productivity gap between China and the developed countries, even more intense competition will be required, for two reasons.

At the leading edge, competition provides both information and incentives that are needed for innovation: it is a process by which, over time, successful firms discover what customers want and identify the new or improved products and processes that most effectively meet those wants.²¹ For instance, it was by exceptionally good product innovation that Apple emerged from intense competition among hundreds of electronics firms. The importance of competition for innovation is confirmed by Chinese evidence (Fu 2015).

Just as importantly, competition provides information and incentives needed to ensure that the performance of other firms does not fall too far behind that of leading firms. There is strong evidence that competition increases the total factor productivity of firms and sectors (Syverson

²⁰ http://en.sasac.gov.cn/2018/03/16/c_13.htm

²¹ For research that supports this statement, see Freeman and Cheng (2013: note 2 and references to part I.A), WB-DRC 2013: 174, especially note 94, and Holmes and Schmitz (2010). The speed of innovation in high-income economies is illustrated by the fact that 'in the microdata underlying US trade price indexes, 40 percent of products are replaced before a single price change is observed and 70 percent are replaced after two price changes or fewer' (Nakamura and Steinsson 2012).

2010). Studies of market economies – including China – also show that long-term growth of productivity in each sector depends heavily on the entry and growth of more productive firms and on the shrinkage and closure of less productive firms.²² Competition that eliminates less good firms is needed to ensure that China’s most valuable resource, its people, are working in an ever-changing mixture of firms that on average becomes more productive from one year to the next (Lim and Spence 2011, Box 2-1).

All developed countries have highly competitive economies, and their governments work hard to keep them competitive. To do so, they have to fight two sorts of enemies of competition, which may be described as sharks and octopuses. The sharks are firms that try to increase their profits by obstructing competition: the key weapon against them is effectively enforced anti-monopoly laws. The octopuses are government interventions in markets that restrict or distort competition: fighting them can be more difficult, because regulations and policies often also have public benefits that need to be preserved.

The importance of competition is well recognised in China, and was emphasised in the Third Plenum Decision. Over the past decade, moreover, the government has taken important steps in its fight against both sorts of enemies of competition.

Against sharks, the key achievement is the 2008 Anti-Monopoly Law, whose design followed best international practice (though it could now benefit from some revision and updating) and whose enforcement progressed more rapidly than in most other countries (Freeman and Cheng 2013, Kovacic et al. 2016). A further step forward in 2018 was to combine the three formerly separate Anti-Monopoly Law enforcement agencies in the new State Administration for Market Regulation. International experience suggests, however, that the rank and power of this agency may need to be increased if it is to be able to enforce the law effectively, and there is also scope for fuller use of the courts in its enforcement (Kovacic et al. 2016, Lin 2018).

Against octopuses, the government has long fought informally, most notably by condemnation of local government restrictions on trade among localities. A first formal step was the inclusion in the Anti-Monopoly Law of a chapter prohibiting ‘administrative monopolies’, but with weak enforcement powers (Kovacic et al. 2016). A more comprehensive and fundamental step in 2016 was to initiate the Fair Competition Review System, requiring all government agencies to review their policies against a checklist of effects on competition and to revise or withdraw policies that are found to impede competition.

Like the Anti-Monopoly Law, the Fair Competition Review System is basically well-designed but to enforce it effectively will be a challenge (Lin 2018). International experience suggests that third-party review of policies should replace agency self-review as soon and as widely as possible and that the system’s rules should be embodied in law, so that the courts can be used

²² Evidence from China is in Brandt et al. (2012), evidence from other developing countries is surveyed in Tybout (2000) and from developed countries in Bartelsman and Doms (2000). Foster et al. (2008) show that most earlier studies underestimate the contribution of new entry to productivity growth.

for enforcement, especially through bottom-up action by firms against agencies whose policies violate the rules. Administrative enforcement agencies, too, should encourage firms to report policies and regulations which restrict competition, since it will often be hard to obtain accurate information solely through top-down monitoring.

Responsibility for enforcing the Anti-Monopoly Law and the Fair Competition Review System is now combined in the State Administration for Market Regulation, but should be separated, since their objectives differ significantly (Lin 2018). The purpose of the Anti-Monopoly Law is to deter and correct restrictions on competition, while the purpose of the Fair Competition Review System is to strike a better balance between the economic cost of such restrictions and their social benefits. Agencies responsible for policy interventions tend to underestimate their economic costs, but a competition agency is likely to underestimate their social benefits.

A major weakness of both the Anti-Monopoly Law and the Fair Competition Review System is exemptions and slack enforcement for state-owned enterprises. Restrictions on entry of other firms into sectors dominated by SOEs are permitted by the Anti-Monopoly Law, and although the Law prohibits SOEs from abusing their monopoly positions, they are often more powerful than the enforcement agencies (Kovacic et al. 2016). Even in situations where competition is allowed between SOEs and private firms, the playing field is rarely level, especially because SOEs usually have privileged access to land, credit and government R&D (Fu 2015).

This sheltering of SOEs from competition is to a substantial extent a deliberate policy choice, related to the official view discussed above that some SOEs in some sectors should be directed to implement higher-level plans, rather than making decisions on the basis of profitability and market pressures. There may be scope, however, for improving and narrowing the selection of deliberately sheltered SOEs and sectors. In some sectors and to some extent, moreover, the sheltering of SOEs from competition is contrary to government policy.

To the extent that it is desired to level the playing field in China, two elements of international experience could be useful (Lin 2018). One is the OECD's competitive neutrality framework, which defines policy and practice for achieving equal treatment with respect to public service functions, taxes, regulation, debt and public procurement. The other element is the EU's State Aid Control Regime, which sets out criteria for deciding whether government financial support to a firm constitutes 'state aid', whether this aid distorts competition, and whether its purpose and amount merit exemption from the general prohibition of state aid.

The list of sectors into which the entry of private enterprises is restricted should be subjected to expert independent review, not dominated by representatives of SOEs, and revised to ensure its consistency with the public interest.²³ The key issue to be considered in each sector should be whether allowing free entry of private enterprises would reduce or increase the chances of

²³ In 2017, SOEs generated 81% of sales revenue in 'key' industries (defence, electricity, oil and gas, telecoms, coal, shipping, aviation and rail) and 46% in 'pillar' industries (including automobiles, chemicals, construction, electronics, equipment manufacturing, nonferrous metals and steel): ASPI (2018). The definition of SOEs seems to omit largely publicly owned 'shareholding enterprises', including which would increase these percentages.

China catching up with the developed countries. In some cases, more competition from private enterprises might make it harder (as the government fears) for SOEs to pursue innovations that were potentially valuable but had high risks or long horizons. In many cases, however, more competition might improve not only the performance of SOEs in the sector concerned but also the performance of enterprises in other sectors to which they supply inputs.

Though it is hard to find convincing economic arguments for restricting entry by domestically-owned private firms, foreign entry is more open to debate (Spence 2012). Competition from foreign-owned firms might slow the development of the capabilities of Chinese-owned firms. Concerns of this sort must be weighed, however, against the opportunities for Chinese firms to learn from foreign firms, as competitors or as partners in production or innovation, and against the benefit of lower prices or higher quality to users of the products concerned.

China already exposes its firms to competition from imports, so the main issue is the effects of allowing foreign firms to supply the Chinese market from within China. Research evidence on the impact of foreign investment is mixed. Foreign investment sometimes increases the total factor productivity of domestic firms in the same sector, and sometimes reduces it, depending on the sector, the nature of the foreign investment and the absorptive capacity of domestic firms (Javorcik 2008, Smeets 2008, Demena and van Bergeijk 2017, Lu et al. 2017). Case-by-case assessment of foreign investment proposals is therefore appropriate but should take account of effects on domestic consumers as well on domestic producers.

2.3 Social issues and policies

China's leadership clearly perceives the importance in a socialist country of tackling problems of inequality and insecurity, and this section will follow the structure of the relevant parts of the Third Plenum Decision in discussing first the distribution of income and second the social security system. However, the focus of this section will be not on near-term improvements to Chinese policies but on how China might prepare now for its treatment of these social issues as a developed country. Its argument will draw heavily on the work of the greatest modern economic scholar of inequality and particularly on his papers on China (Atkinson 2011, 2012) and his book about how to reduce inequality in developed countries (Atkinson 2015).

Reducing inequality and unfairness

Income inequality in China has increased substantially over the past four decades, with the Gini coefficient rising from around 0.3 to the latest officially reported level of 0.46 (Zhuang and Li 2016). This rise in income inequality has been accompanied by a fall in the subjective well-being of less-well-off people, despite the big rise in their material standard of living (Easterlin 2014). Inequality has risen over this period also in most developed countries, though by much less than in China, and in about half of other developing countries (IMF 2017).

China's current Gini coefficient is far from being the highest in the world. The World Bank's standardised PovcalNet data place China one-third of the way down the list of 150 countries,

below most African and Latin American countries and near the USA.²⁴ High inequality in Africa and Latin America, however, is due partly to their greater abundance of natural resources relative to labour than in China, whose Gini coefficient is above that of most other countries, developing and developed.²⁵ China's higher Gini coefficient may be partly a result of it being larger than most other countries, but there can be no doubt that at present China is far from the relatively low level of inequality to which a socialist country should aspire.

Since 2008, however, income inequality in China has been declining as a result of the reversal of some of the forces that had previously been increasing it (Zhuang and Li 2016). The share of labour in national income has risen slightly, the wage premium earned by educated workers has fallen, and the gap between urban and rural income has declined, as has income inequality among regions.

Development is inevitably an uneven process, as was famously noted by Deng Xiaoping and by Kuznets (1955), so there may be a tendency for inequality to decline during the later stages of development, but in other countries this tendency has been neither universal nor strong (WB-DRC 2013, Figure 4.3). Over the past two decades, moreover, the income share of very rich people has risen sharply in most countries, including China, and in some developed countries is back at the levels of a century ago (Atkinson 2012, 2015). Part of the reason for this trend is the emergence of a global market for talented people, but it may also reflect intensified rent-seeking by highly-paid employees and business people (Piketty et al. 2014).

The design of distributional policies needs to recognise that people care more about unfairness than about inequality. In China there is resentment of high incomes secured through corruption and favouritism. Some developed countries are now being torn apart socially and politically not just because income and wealth disparities have widened but also because of dissatisfaction with distributional processes. It is believed that the high pay of bankers is not justified by their economic contribution, that the managers of large firms decide their own pay and that of their friends, and that the rich buy political influence to reduce their tax rates and promote changes in government policies that make them even richer.

Income inequality in developed countries is substantially reduced by redistributive taxation and public expenditure. Income taxes and public cash transfers reduce Gini coefficients by about one-third in the average developed country (which is less than two decades ago: Atkinson 2012, IMF 2017).²⁶ Inequality is increased by taxes on expenditure, but strongly reduced by public spending on services, of which richer and poorer groups use similar amounts: in the average developed country in 2007, adding public services to cash income lowered the Gini coefficient for all households from 0.30 to 0.24 (OECD 2011, Table 8.2).

²⁴ <https://www.indexmundi.com/facts/indicators/SI.POV.GINI/rankings>

²⁵ Land abundance raises the share of natural resource rents in GDP, which tends to increase income inequality where land ownership is unequal. In Latin America, unequal ownership of land led to unequal ownership also of capital and education (Engermann and Sokoloff 1997).

²⁶ This reduction is measured only approximately, because taxes and transfers affect the distribution of 'original income' in ways whose net direction and size is not known (Atkinson 2012).

Taxation of wealth and of inheritances has diminished in developed countries in recent decades, despite (though perhaps politically because of) rising inequality of wealth ownership, and needs to be increased again (Atkinson 2015). Taxation of wealth and inheritances will also need to increase in China, where rising inequality of wealth ownership is one cause of rising income inequality since 1978 that has not been reversed in recent years (Zhuang and Li 2016). Public ownership of the freehold of land helps to reduce inequality of wealth in China but, as in other countries, individuals can still become rich through buying and selling leasehold property.

In China today, the redistributive effect of personal income taxes and cash transfers is small (Atkinson 2012, Zhuang and Li 2016), and inequality is increased not only by expenditure taxes but also by public spending on services, which is greater in urban areas than in poorer rural areas (Li and Sicular 2014: 7). This pattern is similar to most other developing countries (IMF 2017). Realising the potential in China for using the fiscal system to reduce inequality will not be possible until most of the workforce is in formal employment and personal income tax has become a larger source of government revenue.

An important issue for China is how high to set the top rate of personal income tax. The top rates in developed countries, including local as well as central taxes, are now mostly between 40% and 50%, which is where China's top rate of 45% lies (Atkinson 2012). There is debate among economists about the disincentive effects of higher taxes on the rich (IMF 2017) but the possibility of emigration means that top rates in any one country cannot be too far out of line with those in other countries.

A more fundamental lesson from international experience is the importance of ensuring that people actually pay personal income tax. Widespread tax evasion is one of the basic causes of the problems of Greece and Italy, for example, and it has strong adverse effects on the actual and the perceived equity of income distribution, as well as on the public finances. Tax evasion is contagious – if others are not paying their taxes, each individual feels less obligation to do so – which makes it easy to get into a downward spiral towards a culture of tax evasion from which it is hard to escape.

To stay out of this trap, experience elsewhere suggests that three things are needed. First, a tax code with few deductions and exemptions (the proliferation of which is a major weakness of the otherwise well-run US tax system). Second, a well-designed tax collection system, in which most taxes on individual incomes are deducted at source by firms. Third, encouraging voluntary compliance, especially by showing that taxes are well spent. Scandinavians pay a lot of tax partly because of their effective tax systems (Kleven 2014) but also because their governments provide good public services and effective social protection.

Atkinson (2015), like Wu (2011), emphasises that redistribution of income through the fiscal system is not enough to achieve acceptable levels of inequality. Scandinavian countries, for example, have relatively low income inequality mainly because their labour market institutions generate low wage inequality (NEPR 2018). Some of Atkinson's non-redistributive proposals

for developed countries should be considered in China. These include universal good-quality education, influencing the direction of technological change, adding a distributional dimension to competition policy, establishing a legal minimum wage and a code of practice for pay above the minimum, and providing guaranteed public employment at the minimum wage.

Of particular relevance to China, as noted in Atkinson (2012), is his proposal that developed countries should accumulate more public capital. A large stock of public capital can provide a buffer against shocks and generate a steady flow of government revenue (without the economic distortions caused by taxes) that can be spent on public services and redistributive transfers, making it an effective and efficient way of reducing inequality, especially in countries where profits are high and wages are low (Meade 1964). This is one reason why the current reforms of China's public ownership discussed above are so important: in the longer term it is vital that state-owned capital should regularly contribute far more to the budget than it now does, and in the near term there should be further transfers of shares in SOEs to institutions that finance the pensions of people who were left behind by the reforms.

More generally, some of the inequality and much of the perceived unfairness in China could be reduced by further reforms of its economic management system. In addition to its fiscal advantages, rearrangement of public ownership contributes to the aim of separating enterprises from government. This separation would reduce the scope for official intervention in the affairs of enterprises and hence the opportunities and incentives for corruption. International evidence suggests that monitoring and punishing corruption needs to be complemented by striking at its underlying sources (Rose-Ackerman and Truex 2013).

Distributional fairness would also be improved by reforms that increased competition. Barriers to entry into markets unjustly benefit insiders and penalise outsiders. Owners of firms with monopoly power earn higher profits and often share these with their employees. For instance, workers in state enterprises in sectors to which the entry of competitors is restricted earn more than similar workers in other sectors.²⁷ A better enforced Anti-Monopoly Law, a more level playing field for state-owned and private enterprises, and fewer official barriers to entry into markets would all reduce actual and perceived unfairness in China, as would reforms to create greater competition in the markets for labour, land and capital.

Providing effective social protection

People in China today have felt insecure because the development of a modern system of social protection to replace the iron rice bowl has lagged behind the emergence of a market economy. They worry about impoverishment by sickness, injury or old age, and about the increased risk of periods of unemployment after firms contract or close as a result of stiffer competition and

²⁷ Wu (2011). Démurger et al. (2012, Table 6) show that half the difference in earnings between urban workers in state and private enterprises in 2007 was not explained by differences in their education and experience (though the difference in earnings and the unexplained share were smaller than in 2002).

lower tolerance of loss-making. There has been rapid recent progress in health insurance and the coverage of income-support and pension systems, but further improvements are needed.²⁸

An obvious possible model for the social protection system of a high-income China is provided by the ‘welfare states’ of developed countries, which vary in detail but are large everywhere. The fiscal cost of social expenditures – pensions, unemployment and disability benefits, child allowances, health care and housing – averaged 20% of GDP in OECD countries in 2007 (Adema et al. 2011, Table 1.4, line 6). The US provides large tax breaks for private spending on health and pensions, but Europe’s higher public spending has achieved a more equitable distribution, especially of medical care (Atkinson 2012: 12-15).

An important long-term question for China is the affordability of a welfare state on the scale of developed countries, especially because most of these countries until recently neglected to make realistic projections of the liabilities of their welfare state programmes or to decide on the best way to fund them. China should learn from these mistakes by making conservative estimates of the future costs of its social protection system and planning for their financing, including by revenue from public capital.

Social spending in Europe has been under fiscal pressure since the 1990s, but the recurrent problems of the Euro area are not caused by the cost of its welfare states (Atkinson 2012). Of the fourteen OECD countries whose public debt was rated triple-A in April 2012, eleven had shares of public social spending in GDP at or above the OECD average. Financially strong Germany’s share of net public social spending in GDP is among the highest in the Euro area (Adema et al. 2011). Indeed, the economic resilience, social stability and good governance of the countries of Northern Europe owe much to their strong systems of social protection.

Critics of welfare states argue that they hurt growth and employment. However, there was no correlation across the 21 richest OECD countries between their growth rates of GDP per capita in 1997-2007 and their shares of public social spending in GDP (Atkinson 2012, Figure 6). Nor is there a correlation across OECD countries between the employment rate of working-age people and public social spending (Atkinson 2012, Figure 7), despite concerns that better social protection reduces the number of jobs because of higher social security taxes on workers and employers.²⁹ In 2000, this employment rate was ten percentage points higher in the US than in the EU-15, but by 2010 the difference was only one percentage point.

A key lesson from developed-country experience is to focus on protecting people rather than on protecting firms or jobs (and to motivate and assist unemployed people to return to work).³⁰ Social protection of this sort contributes both to fairness and to growth. More competition and more innovation will raise China’s per capita income partly by driving backward firms out of

²⁸ Lessons of international experience on pensions, social policy and housing are in Lim and Spence (2011).

²⁹ Concerns of this kind are expressed in the context of China in WB-DRC 2013: 95-6, 328-30, which offers some technical suggestions for minimising the effect on jobs, as does Levy in Lim and Spence (2011).

³⁰ For example, Germany’s ‘Hartz Laws’ altered its social protection system in this direction in 2001-6.

business. A good system of social protection in China will make this sort of structural change more socially acceptable by reducing its costs to individual people and families.

A second lesson concerns the possibility of cutting the fiscal cost of social protection benefits by ‘means-testing’ (giving more to poorer than to richer people), rather than giving ‘universal’ benefits (at the same rate to all who are eligible because of, say, their age). Means-testing may seem fairer as well as cheaper, but has serious disadvantages (Atkinson 2015). The complexity and loss of face involved in testing deter many people from taking up benefits that they need. Means-testing also imposes high marginal ‘tax rates’ on the poor (because rises in earnings are offset by withdrawal of benefits), discouraging efforts by poor people to lift themselves out of poverty and efforts by the unemployed to find jobs.

A more recent concern is that even the best of today’s welfare states could not cope with the extinction of much employment by robots (Turner 2018). There is wide disagreement on the likelihood of such an outcome, but the risk of it has increased support for giving everyone a guaranteed basic income (Atkinson 2015, IMF 2017, OECD 2017). In two ways, China may be better placed than other countries to deal with this possible challenge: its total labour force will be shrinking, and many of the robots will be in firms that are publicly owned.

China should introduce comprehensive social protection with universal coverage, and raise the initially low benefit levels as the country becomes more prosperous. It may ultimately choose a system less comprehensive than in, for example, Scandinavia, but it should aim at a level that is consistent with both its economic means and its socialist principles.

3. Conclusion

The reform of the economic system that began in 1978 has been immensely successful. China is now well placed to join the ranks of the world’s most developed countries, a position that it occupied for long periods of its earlier history. To do so, however, will require further reform, along the lines of the Third Plenum Decision of 2013. In the spirit of the 1985 World Bank report, this paper has flagged some of the issues and discussed some of the options.

To catch up with the developed countries, China needs to increase its total factor productivity, partly by using inputs more efficiently and partly by improving output quality, both of which will require a lot of innovation and a lot of firm-level structural change. Of key importance in this process will be the performance of China’s SOEs, which should be constantly monitored to evaluate the effectiveness of recent public ownership reforms and to assess whether further reforms are needed, including perhaps reduction of the scope of direct control of SOEs. Also essential will be to increase competition among firms in China by better implementation of the Anti-Monopoly Law and revision of policies that reduce competition, with special attention to exposing SOEs to more competitive pressure.

To be a developed socialist country, China will need to reduce the inequality of its distribution of income and to improve the perceived fairness of its distributive processes. These outcomes

can be achieved partly through increasing the scale of redistribution through personal income taxes and public expenditure, but will also require measures to reduce the inequality of pre-tax incomes through broad access to good education, institutional restraint of wage inequality, and progressive taxation of wealth and inheritances. Fairness will be improved, too, by economic reforms that separate enterprises more clearly from government and increase competition, as well as by continuing efforts to control corruption. To reduce hardship and insecurity caused by old age, ill health and firm-level structural change will require a good social security system, financed partly by revenue from public capital.

The problems ahead will not be easy to solve, but the final sentence of the 1985 report remains valid. 'China's long-term development objectives seem attainable in principle, and if recent experience is any guide, there is a good chance that they will be attained in practice'.

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