# China: Enormous potential in years ahead\*

\* Extract from Lopez-Claros, Augusto and Mata, Yasmina, "Policies and Institutions Underpinning Country Innovation: Results from the Innovation Capacity Index," *The Innovation for Development Report 2010–2011*, pp. 44–47.

The last year that China's growth rate was below 7.5 percent was 1990. On a PPP-adjusted basis, Chinese GDP has already overtaken Japan and Germany, making China the world's number two economy. This impressive growth performance has turned the Chinese economy into an important contributor to global growth, a major force in commodity markets, the most important destination for foreign direct investment and, hence, an emerging power in international trade. Chinese exports and imports in relation to GDP were less than 15 percent in the mid-1980s, but by 2008 had risen to 33 percent for exports and 26 percent for imports. Whereas Chinese exports were less than 1 percent of total world trade in 1984, this share 20 years later had risen above 5 percent. So, if the intent of the strengthened reform effort seen in China in the last 20 years was to contribute to its integration to the global economy, it has succeeded well beyond anyone's expectations.

The above trends have all contributed to increasing the relative importance of the Chinese economy which, by 2009, accounted for some 7–10 percent of global GDP (the lower range corresponds to market exchange rates). They have also pulled hundreds of millions of people out of poverty, given them enhanced opportunities, and improved living standards, perhaps the most important achievement of the last 20 years.

While the Chinese authorities are to be praised for effective macroeconomic management—sometimes carried out against the background of a difficult international economic environment—it is useful to review briefly the challenges that remain, particularly those that pertain to improving the country's innovation capacity. In the medium-term perspective, the sources of Chinese growth will gradually shift to technological progress and innovation; thus, it is important to analyze those factors that might be holding the country back. This year's ICI ranking for China is 64, broadly in the same ballpark as that of Mexico, Turkey, and Greece.

# **Market regulations**

The OECD has compiled an extremely useful set of market regulation indicators to "assess the extent to which the regulatory environment promotes or inhibits competition in markets where technology and market conditions make competition viable." <sup>1</sup>

These indicators include a measure of the extent of price controls, the licensing and permit system, communication and simplification of rules and procedures, administrative burdens for sole proprietor firms, legal and regulatory barriers, discriminatory procedures, tariff policy, the degree of government control over business enterprises, among others. These are aggregated into three broad families which capture state control, barriers to entrepreneurship, and barriers to international trade and investment. Two major conclusions that are derived from a review of these measures are that

- 1. China's product markets have become increasingly competitive in recent years and market forces are now playing the leading role in the setting of prices and the behaviour of agents in the broader economy;<sup>2</sup>
- 2. China *remains* a difficult country to do business in; product market regulation is such as to continue to restrict competition in a major way.

Indeed, the OECD data suggests that market regulations are more restrictive in China than anywhere in the OECD countries, including all its transition-economy members. The gaps are large across all three major areas: state control, barriers to international trade and investment, and barriers to entrepreneurship. These results are strongly corroborated by the Doing Business indicators compiled by the World Bank which show poor scores/rankings for starting a business, dealing with licenses, construction permits, employing workers, and paying taxes. The indicators measuring the extent of investor protection are likewise mediocre.

China's weaknesses in the regulatory and legal framework highlighted by the OECD and World Bank indicators are consistent with members of the business community surveyed in China, who complain of arbitrariness in the application of rules, lack of evenhandedness in the treatment of foreign and domestic investors, and high levels of corruption; the latter is strongly corroborated by a rank of 79 in the *Corruption Perceptions Index* 2009, which puts China on a par with Burkina Faso and Trinidad and Tobago. A recent report in the *Financial Times* commenting on the frustrations of doing business in China notes that "the risk-reward calculation between staying quiet and speaking up has shifted towards the latter. With China employing

policies including ignoring intellectual property rights, forced technology transfer, and government procurement skewed towards domestic companies, some foreign businesses feel they are being pushed out of the country."<sup>3</sup>

### Human capital, ICT and R&D

There are a number of other indicators used in the ICI in which China does not score very well, and which thus contribute to dragging its score down. Tertiary enrolment rates of 22 percent are better than in India, but below the majority of countries in Latin America, and below all OECD members, the latter by a significant margin. As might be expected, given China's stage of development and still relatively low income per capita, the gap is also huge with respect to Japan, Taiwan, Korea, and Singapore. Spending in education, at slightly less than 2 percent of GDP, is also low by international standards. Despite rapid urbanization (see below), China has a sizable rural population engaged in agriculture. Though the literacy rate in the country (93 percent) is well above that of India (66 percent), the fact remains that there are hundreds of millions of people in China who need to be educated and trained to increase their productivity. This will surely be one area where the government will have to do more in coming years, a need made more urgent by China's rapid integration into the global economy, and a gradual shift in the sources of Chinese competitiveness, from low labor costs and an undervalued exchange rate, to technology and innovation.

As with indicators of education, China, likewise, has mediocre scores in a broad range of indicators that capture the extent of penetration of the latest technologies. As in other parts of the world, progress has been made in recent years in boosting Internet penetration, mobile phone coverage, computer use, access to broadband Internet, and so on. But given China's large rural population, it is perhaps not surprising that the use of these technologies is still in its early stages. For instance, personal computer use per 100 inhabitants is 5.6, higher than in India (2.8) but about ten times lower than in Korea. China's rapidly rising income per capita should allow it to narrow these gaps fairly rapidly over the next decade. In the meantime, however, there is little doubt that they slow down innovation capacity.

Research and development expenditure in China is about 1.5 percent of GDP, below the average for the OECD of 2.2 percent of GDP. According to the OECD, if one further looks at R&D spending by industry, the gap with respect to the OECD is much higher, particularly for high-tech industries.

This is specially the case for high-tech export industries "which lack a large R&D base in China and continue to rely heavily on foreign-sourced technology embodied in FDI and imported inputs" (OECD, 2010, p. 25).

### Improving the social infrastructure

One of the more noticeable trends in China in recent years has been the massive shift of rural populations into urban environments. Whereas in 1980, less than 20 percent of China's total population of close to 1 billion was living in urban areas, by 2000 this share had risen to 33 percent. The urban population during this period expanded from about 190 million to over 420 million, an impressive growth of over 120 percent. Indeed, at least a few percentage points of the high annual GDP growth rates seen during this period is accounted for by these internal migratory flows, since labor productivity in urban areas is much higher. This trend is expected to continue in coming years and will require careful management. There are several aspects to this.

As is well known, and as in other transition economies, there have been transitory increases in unemployment linked to the inevitable—and much needed—restructuring of the enterprise sector. This has necessitated the introduction of unemployment compensation schemes and, more generally, the buildup of safety nets to mitigate the impact of these adjustment costs on the population, particularly its most vulnerable groups. Like other countries in the industrial world, China will also have to make provisions for its aging population, and more attention will have to be given, therefore, to the development of efficient and modern systems of social protection, particularly pensions. This, in turn, will have implications for the budget. The need for further reforms in this area is highlighted by the fact that by 2030, China's urban population may well have exceeded 1 billion. Well before the country reaches this threshold, the need for a wellfunctioning and well-funded social infrastructure will have become a political necessity, especially if the current rural-urban income disparities continue to widen, as they have in recent years. Indeed, China's political stability will hinge critically on the speed with which the government is able to make progress in this area, at a time when rising protectionist sentiment against booming Chinese exports begins to create a more challenging external environment for the country. An additional benefit of an improved framework for social protection will be that the Chinese population will feel less of a compulsion to save (for old age) and this would stimulate domestic consumption, thereby contributing to reduce China's huge trade surplus, a constant

source of tension with trade partners. Better mechanisms of social protection will also encourage entrepreneurship and long-range planning, key ingredients of successful innovation.

# Managing the growth process

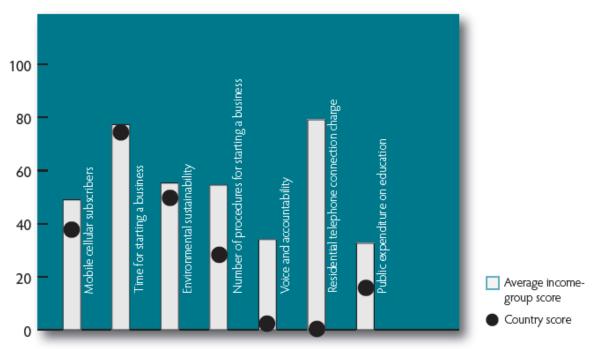
For some time now there has been a vigorous debate about the risks that rapid growth rates might pose for macroeconomic stability. Sceptics have pointed out that China's relatively good inflation performance and some slack in the labor markets suggest that growth could be sustained at the 9+ percent range. However, in recent years, credit growth has at times reached extremely high levels, and a consensus has emerged that managing the growth process in a way that preserves and builds upon the important gains of the past is a key priority for policymakers. This view has been buttressed by a growing perception that rapid growth is leading to a sharp deterioration of the environment, with unforeseen future consequences for public health. However, monetary policy measuresinterest rate and reserve requirement increases are not likely to be enough. There may also be a role for fiscal policies aimed at withdrawing stimulus from the economy. Fortunately, with a low revenueto-GDP ratio, the authorities have considerable room for maneuver and should not hesitate to use it. Beyond this, further structural reforms, particularly those that boost competition in the economy, reduce the sort of barriers faced by entrepreneurs to start new businesses, and increase transparency and the rule of law will all help to make the Chinese

Figure 4. China: Top priorities for policy reform

economy more flexible, and will enhance the economy's productivity and boost its innovation capacity.

The process whereby China plays an increasingly important role in shaping the global agenda will be enhanced if the government sets in motion processes of political reform—the 21st century counterpart of the impressive reforms in the economic area implemented during the past two decades, which have done so much to boost the standards of living of the Chinese population. A China that gradually moves in the direction of giving some political voice to its people can only contribute to enhancing its own ability to nourish an environment conducive to greater innovation.

<sup>&</sup>lt;sup>3</sup> See *Financial Times*, 2010. The article quotes an official at the US Information Technology Industry Council saying that "We are feeling less and less welcome in China, which is why you are seeing more people speaking out and reconsidering their futures in China."



<sup>&</sup>lt;sup>1</sup> OECD, 2010, p. 103.

<sup>&</sup>lt;sup>2</sup> In 1978, state-owned enterprises accounted for 78 percent of total industrial output and employed 60 percent of the non-farm workforce. "Collectively-owned enterprises accounted for the rest, with no other type of business enterprise permitted at the time." By 2007, the state controlled 31 percent of industrial output and employed 22 percent of the non-farm workforce (OECD, 2010, pp. 105–7).