

Supporting Report 4

Equality of Opportunity and Basic Security for All

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Executive Summary

China's social development over the last three decades has been impressive. It has universalized compulsory education, expanded participation in higher levels of education, sharply reduced the burden from infectious diseases, and dramatically increased social security coverage. Labor has become more mobile and a growing number of rural migrants have moved to cities. The "iron rice-bowl" social protection system based on work units has been transformed into programs that are being expanded and consolidated.

At the same time, China's social development faces four broad challenges to which social and economic policies will need to respond:

The first challenge is high inequality, some dimensions of which may have worsened in recent years. Inequality remains high in incomes, consumption, and asset ownership, as well as in access to quality education, health, jobs, and social protection programs across and within regions, and social groups. Part of the higher inequality is the "Kuznets' effect"—the result of structural change as labor moves from agriculture to manufacturing. But there are other drivers of inequality including: (i) China's decentralized fiscal system and the mismatch at local level between resource availability and social spending responsibilities that have led to large spatial disparities in public expenditures per capita on social services; (ii) institutional arrangements and policies reinforce and even accentuate inequalities such as the hukou system, and fragmented social security arrangements; (iii) high social insurance taxes and weak labor market institutions, neither of which favor labor, and significant segmentation in urban labor markets.

The second challenge is inefficiencies in social service delivery due to distorted incentives and market structures. Public organizations face little competitive pressure to improve efficiency or quality. And pressure from users of services is also limited because of lack of downward accountability. The incentive structure in health and to some extent education services encourages public providers to act as profit-maximizing private sector entities. As a result, it is estimated that between a third and half of hospital admissions in China are unnecessary, and the average length of stay in hospital is double the OECD average; and school selection fees drive a further funding wedge between "key" schools and regular schools and exclude many.

The third challenge is rapid aging of the population. China is "growing old before growing rich". As the country ages, the labor force will peak around 2015, and dependency ratios rise rapidly. These trends put a premium on deepening human capital to enhance labor productivity, place additional demands on education and training systems, and heighten the importance of allocating labor efficiently. Ageing has also transformed the disease profile towards non-communicable diseases, requiring a shift from curative to preventive care and better health education.

And the fourth challenge is managing growing economic, social and cultural diversity. Significant changes in social structures and values have taken place since opening-up, driven by changes in economic and industrial structure, employment and income distribution, and new social stratification patterns. The needs, expectations and values of various groups are increasingly diverse. This will present increased challenges in managing constructively the tensions of unity and diversity.

The social policy response

In response to the above challenges, this report argues that over coming decades China needs to pursue social policies that promote "Equality of Opportunity with Security." Social policy will need to focus on promoting human capital development, providing basic social welfare but avoiding welfare dependency, and promoting growth and development. Simply stated, all citizens should have: (i) equality of opportunity in education, health, employment and entrepreneurship; and (ii) security from deprivation through a moderate but sustainable social protection system, together with care services for the aging population.

Underpinning these reforms is the cross-cutting need to promote greater accountability for results in social services and social protection programs. This would need to come from three channels: (i) administrative systems that monitor performance and encourage quality and equity; (ii) market-based mechanisms that encourage private delivery and rely on competition with appropriate regulation; and (iii) accountability to citizens by increasing the role of civil society organizations.

To achieve these objectives, China needs to develop a vision, core values, and guiding principles for social policy development and for social harmony. The report argues that China could benefit from its particular blend of social and economic characteristics. The choice of China could be the “active welfare society” or “developmental welfare” model. Underpinning such a model would be the need to develop consensus on a common set of underlying values. These include social equity and justice for all; acceptance that society should help meet basic needs for all, especially the poor and vulnerable; respect and care for family members; maintenance of a strong work ethic and avoiding welfare dependency; developing the professional ethics of service providers; and sharing of responsibilities among the state, communities, families, social organizations, and the private sector.

In moving towards such a model, an overarching question will be what level of social services and protection the State should aim to finance. International experience suggests that social spending accounts for the bulk of incremental public expenditure as countries get wealthier. At the same time, additional government-financed social services and social protection should be undertaken with considerable caution and with a stronger focus on efficiency of public spending. In striking this balance, China will need to avoid the predicament which many advanced countries face from unsustainable entitlement programs.

The key elements of such a social policy model—some of which are already emerging—are:

Equitable and effective social services which build human capital for a healthy and productive population. By 2030 China would have an education system that provides an expanded cycle of quality general education for all from pre-primary to senior secondary schooling. The latter would be fee-free, and the former available affordably to all, including subsidies to the most needy. Underpinning this would be an early child nutrition program and expansion of childhood obesity interventions. Building the human capital base will also require a post-general education system that provides a more flexible and demand-driven set of competencies. By 2030, the barriers between technical/vocational and academic educational streams should have been reduced, by more core skills for technical students, more practical and applied higher education, and cross-over between technical to academic streams. The health system would provide more uniform and deeper financial protection against health shocks for all. And the delivery system would be more accountable for the quality and cost-effectiveness of services through provider payment and other reforms. The restructured health system would be less hospital-oriented, and be built around a high-quality primary care network to meet more complex case management needs of non-communicable diseases.

Flexible and secure labor and entitlement policies and institutions which not only promote an internationally competitive workforce but also ensure that workers share in growth and maintain basic protections. Achieving the balance between the interests of workers and employers would require “flexicurity” in the labor market to promote efficient allocation of workers to their most productive use, but also to provide the security to ensure decent pay and conditions which reflect their productivity. This would first require eliminating the remaining barriers to labor mobility with equity, in particular barriers which are related to inherited characteristics. Most critically, the hukou system would have been phased out no later than 2030 as an instrument of allocating social entitlements to the migrant population. Instead, entitlements would be linked to residential permits, stable employment or both, depending on the categories of rights. The higher levels of governments in particular the central authorities need to play a more pro-active role to encourage local efforts of promoting social inclusion of migrant populations, through a common policy framework, financially, and politically. Labor mobility

would be underpinned by a social security system where entitlements are fully portable across the country, and where higher level pooling has reduced the cross-regional disparities. And the burden of taxation on labor would be gradually reduced. In parallel, the wage determination system would be driven more by fair and representative collective bargaining. Finally, China would need by 2030 to have made significant progress towards a longer productive life from its urban workers through higher retirement ages, flexible work arrangements, and life-long learning opportunities.

A basic but secure social protection system which provides for a moderate level of security for all while respecting fiscal constraints. By 2030, China would have full coverage of sustainable pension and health insurance systems, with more reliable security from all schemes and greater integration of all sub-systems. In addition, China would by 2030 have a well-developed system of aged-care and long-term care services which draws upon the human and financial resources of all stakeholders and provides a minimum level of service for the poor. Finally, the safety net for the poorest and most vulnerable would have greater coherence between different parts of the social protection system, which provides acceptable coverage of benefits for poor households and at the same time does not create “poverty traps” for the near-poor.

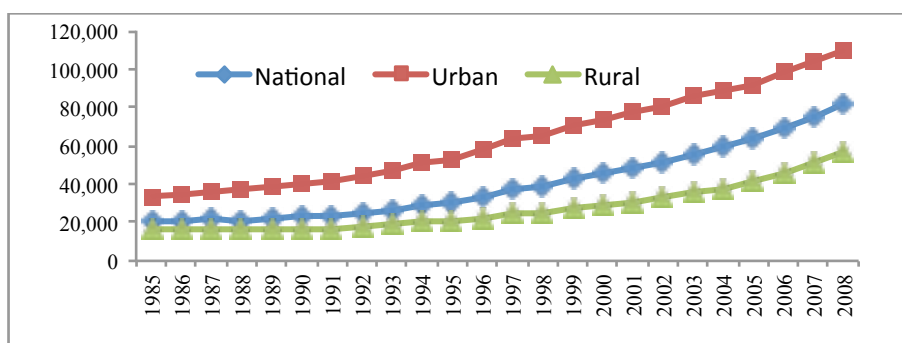
While China’s social policies have achieved some measure of success in the past 30 years, simply doing more of the same is unlikely to be sufficient as it faces new challenges. The more complex challenges require greater collective action across regions and across social groups in situations where interests diverge. They also require shifting emphasis from quantity to quality of services, from input to outcomes of programs, and from government-dominance to co-governance arrangements for social services that are complex to achieve and monitor. In this process, there is a need for greater efficiency in public resource use, but also structural shifts in policies and delivery systems, and recognition that the state cannot “do it all”.

Implementing the necessary social policy reforms will need strong and sustained commitment to manage vested interests within the social sectors and beyond. Current patterns of service provision and outcomes result in divergent interests which are likely to generate resistance to reform among those who benefit from the status quo. As in other countries, this will require careful management of reforms and attention to creating incentives for all stakeholders to support them.

Chapter 1 Challenges for China's Social Development

Since opening up, China has made great strides in social development. Educational enrollments have increased rapidly, with large increases in high school attainment and above. The real per capita stock of human capital has risen rapidly, especially since the 1990s (see Figure 1.1).¹ After the collapse of the rural health system in the 1980s, China has moved actively to rebuild the health delivery network. It dramatically reduced the burden of infectious disease and expanded coverage of basic health insurance to almost all rural and growing numbers of urban citizens. China has also transitioned from an enterprise-based “iron rice bowl” to consolidating a market-compatible labor market and social protection system at a rapid pace. While hukou reform still remains an unfinished agenda, the strict constraints on population mobility have been gradually relaxed to release the largest flow of internal migration ever seen.

FIGURE 1.1 Per capita human capital: national, urban and rural, 1985–2008 (1985 RMB)



Source: China Centre for Human Capital and Labor Market Research (2010).

Despite these successes, China faces new social challenges and risks as it seeks to build a harmonious high-income society, perhaps the key one being the inequalities which have emerged during the reform period. The 11th and 12th Plans recognize the emerging limitations of the current growth model and place greater emphasis on addressing inequality and enhancing the basic security of the population. Part of the rising income and consumption inequality is the “Kuznets effect”—the result of structural change as labor moves from low-productivity and labor-intensive agriculture to higher-productivity and capital-intensive manufacturing. Some inequalities are unintended consequences of market reforms and past failures to deal appropriately with the public goods nature of investments in human development. Others, however, are direct products of policies which institutionalize inequality of opportunity (such as the hukou system) or do not provide an effective framework for addressing inequalities (such as the inter-governmental fiscal system). Overlaying these challenges are ones of rapid demographic and epidemiological transitions, changing social structures, sustained urbanization, and the political economy of reform. Taken together, the challenges strongly suggest that “business as usual” in social policy will be insufficient to address China’s needs in coming decades.

Just as importantly, there are significant challenges of quality and efficiency in education and health services, as well as in social security programs. Problems of quality risk compromising development of human capital and a healthy and productive population. The problems arise

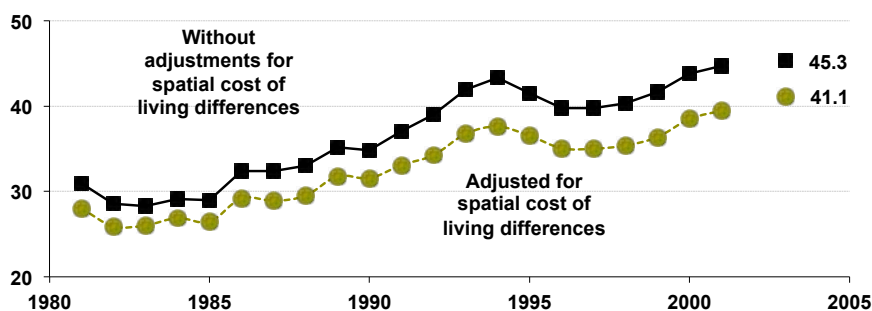
¹The measure of human capital used is the Jorgensen-Fraumeni lifetime income-based approach.

in part from *distorted incentives and market structures*. Public organizations and agencies exercise a monopoly or quasi-monopoly in delivering social services and face little competitive pressure to improve efficiency or quality. And pressure from users of services is also limited due to lack of downward accountability. The revenue and incentive structure in health and to some extent education services encourages public providers to maximize revenues and act as profit-maximizing entities—for example, it is estimated that between a third and half of admissions to hospitals in China are unnecessary, and the average number of days in hospital is double the OECD average,² and school selection fees in urban areas drive a further funding wedge between “key” schools and regular schools.

A. Inequality of outcomes and opportunity

The sustained rise in income inequality during the reform period is a major source of concern. From low inequality in the mid-1980s, income inequality—as reflected by the Gini—rose rapidly to around 0.45 by the mid-2000s (see Figure 1.2), and subsequent analysis suggests that it may have climbed further to 0.49 by 2007.³ The disparities across the whole population are mirrored by large divides between the richest and poorest citizens, with mean incomes in the richest decile over 16 times those of the mean for the poorest decile by mid-decade. The rising inequality reflects greater disparities between urban and rural areas and within rural and urban areas.

FIGURE 1.2 The evolution of income inequality in China since the start of reforms (Gini index of income inequality from 1981 to 2005)



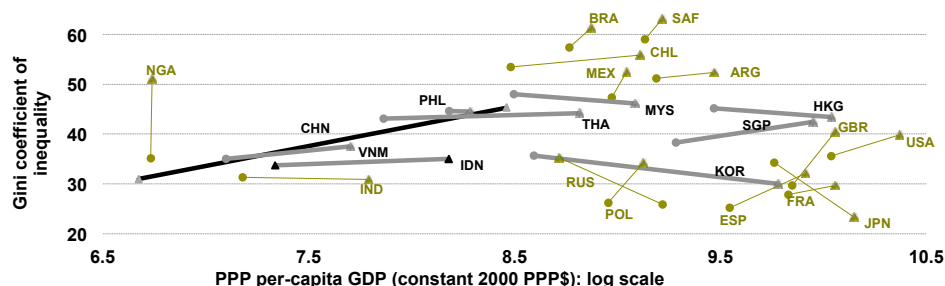
Source: World Bank (2009).

The sustained increase in income inequality places China at the high end of income inequality among Asian countries. While there remain countries with higher income inequality than China—notably in Latin America—few developing countries have seen the rapid sustained increase that China has witnessed since the mid-1980s, and it is already a high income inequality country by Asian standards and those of OECD countries. This can be seen in Figure 1.3. While there may have been a flattening of income inequality in recent years—suggested from example by the rising relative wages of migrants and relative regional growth rates—it remains to be confirmed.

² World Bank (2010) re average length of stay.

³ See Li, Luo and Sicular et al (2011), in Sicular (ed), (2011).

FIGURE 1.3 Global trends in per capita GDP growth and Gini coefficients, 1980s–early 2000s



Source: World Bank (2005), except for China which uses 2003 data. Start and finish year vary by country, but start year early to mid-1980s and end year late 1990s to early 2000s.

Income inequalities are exacerbated by disparities in asset ownership, particularly housing. Housing is estimated to account for around 60 percent of household wealth and for almost two thirds of the inequality of wealth among households.⁴ While nearly all rural and almost 90 percent of local hukou urban households owned their housing by the mid-2000s, fewer than 10 percent of migrant households owned housing in their city of residence in 2007. In addition, while housing wealth increased rapidly for all homeowners between 2002 and 2007, the rate of increase for urban households of 15–20 percent per annum was significantly higher than the 7 percent annual increase of rural households. As a result, per capita urban housing wealth went from 4.5 times that of rural households in 2002 to 7.2 times only five years later, a gap significantly higher than the urban-rural income gap.⁵

Inequalities in incomes are mirrored and driven by major disparities in opportunities for quality social services and social protection. With China's success in expanding access to social services and coverage of social protection, new challenges of equalizing quality of services and depth of financial protection have emerged. Inequalities of opportunity starts early in life and continue into working life. The opportunities for developing human capital, staying healthy, and having a reliable safety net vary greatly in China, depending on whether a person is rural or urban, in coastal or inland provinces, and is a migrant or a local resident in urban areas. In some cases (such as pre-schooling), inequalities are ones of access, while in others (such as general education) the challenge is to promote "equality of quality" and affordability. The hukou system reinforces disparities by imposing high costs of education, health care, and housing for migrant households.⁶ Migrant workers are also less able to access lucrative employment opportunities in the public and SOE sectors, and face greater challenges than local workers in accessing decent work even outside these sectors. Inequalities in basic services have been compounded by lack of social security coverage and/or shallow financial protection for migrant, rural, and urban informal sector workers (e.g., in the scale of protection under NCMS). As a result, secondary distribution is in a number of cases regressive, despite the efforts of recent years to expand coverage. While the authorities recognize and are trying to address inequalities of opportunity, promoting greater equity in coverage and quality of social services and social security is hampered by the highly decentralized nature of financing.

⁴Li and Zhao (2008); Zhao and Ding (2008).

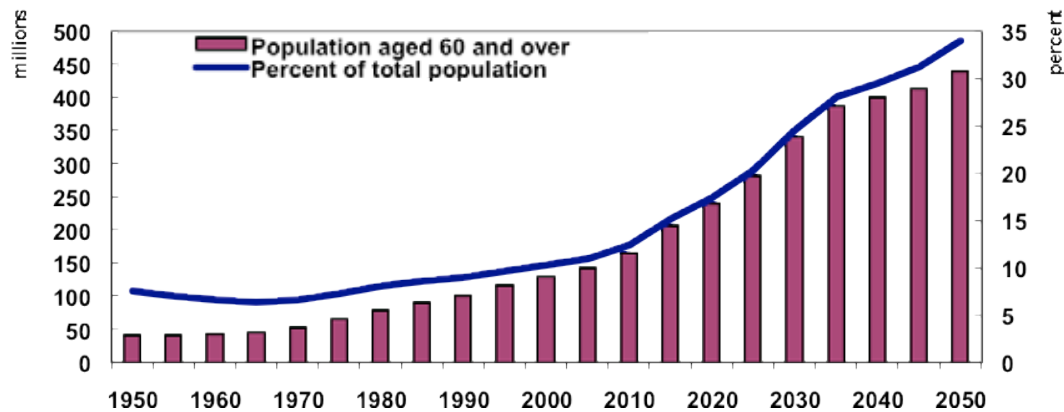
⁵Sato, Sicular and Yue (2012).

⁶See World Bank (2010) for detailed example of differential access to urban public education for migrant children.

B. Rapid demographic transition

China's demographic transition will be among the most rapid ever seen and is an emerging source of economic and social vulnerability. China has experienced the kind of fertility transition over the past 40 years that typically took more than 100 years in developed countries.⁷ With rising life expectancy and the sharp fall in total fertility to only around 1.5, it has “grown old before growing rich”. Looking ahead, the share of people aged 60 and over to total population will accelerate in coming decades, from only around 12 percent in 2010 to almost one quarter by 2030 and over a third by 2050 (Figure 1.4). This would by 2030 give China a population share over 60 only just under the OECD average. As a result, the old age dependency ratio in China will increase at an almost unprecedented rate over the coming decades, with the rural old age dependency ratio rising to over 34 percent and the urban rate to around 21 percent by 2030. The emerging “4-2-1” extended family pattern of four grandparents, two parents and one child will put deepening strains on family support networks.⁸ Aging will also challenge social programs, in particular pensions and health care.

FIGURE 1.4 Number and share of population 60 and over, 1950–2050



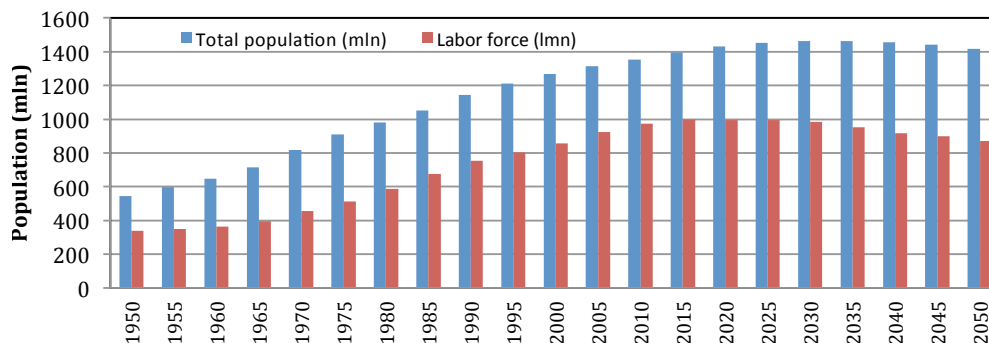
Source: For 1953, 1964, 1982, 1985, 1990, 1993, 2000, 2002 and 2010, National Bureau of Statistics, and for 2020 to 2050 UN 2010 Revision.

The end of the demographic dividend and exhaustion of the rural labor surplus will shift labor market dynamics. A source of growth in the reform era has been an expanding labor force, rising from under 600 million of working age (15–64) in 1980 to around 990 million in 2012. However, this trend will reverse from the middle of the current decade. While the decline in working age population will not really take hold until around 2030, after that there will be a sharp decline in working-age population from just over 1 billion in 2026 to 850 million by 2050 (Figure 1.5). The aggregate decline in labor force is exacerbated by the rapid decline in the rural surplus labor which has until recently provided an unlimited source of cheap labor. Although the precise timing remains disputed, most researchers accept that China is at or nearing the Lewis turning point of exhaustion of the rural labor surplus, and the remaining rural working age population may be too old, sick, or disinclined due to family obligations to migrate to urban areas.⁹ The combined impact of declining labor force, exhaustion of the rural labor surplus, and rapid aging means that productivity growth per worker will become critical as China simultaneously seeks to move up the value chain. At the same time, in the short run, low-skilled workers could benefit from the shift in supply and demand in the labor market, which might provide negative incentives to investments in human capital beyond junior high level.

⁷ Uhlenberg, 2009.

⁸ Cai, et al (forthcoming), including for evidence on emerging strains on family support in rural areas. Commentators have also pointed to the longer term prospect of an 8-4-2-1 family structure.

⁹ A useful symposium on the issue is in *China Economic Review* (2011).

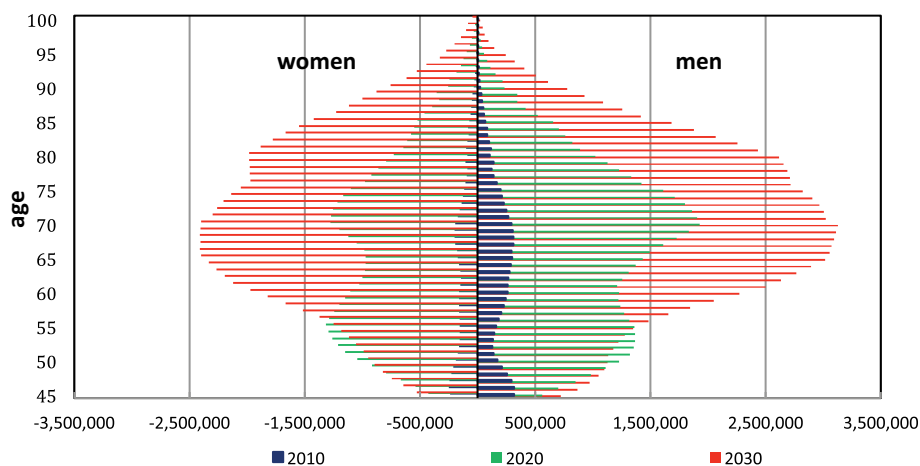
FIGURE 1.5 Total population and labor force, 1980–2050

Source: United Nations Secretariat, World Population Prospects: 2010 Revision.

A further demographic challenge will be managing sustained urbanization. China moved from under 20 percent urban population in 1980 to almost 50 percent by 2010, and is expected to have around two thirds of people living in urban areas by 2030. This has contributed to structural transformation and higher productivity, facilitated by easing of population mobility restrictions in the hukou system. However, the failure to address entitlement reform for migrants through incomplete reforms of hukou and the ongoing challenges of managing farmers losing their land to urban expansion has meant that there remains a fundamental segmentation between the local urban hukou population and the non-urban hukou population. The social compact with migrants in urban areas remains for the most part a different one to that with local urban populations. Disparities in social entitlements that the original population of “floating” migrants was willing to accept will become harder to justify to second generation “permanent” migrants. Deepening reform of the hukou system to reduce social stratification and move towards more equal entitlements for local urban and migrant populations presents major challenges, the resolution of which will have a major bearing on the social and fiscal sustainability of further urbanization.

A final demographic challenge will be sustaining a healthy and productive population in the face of epidemiological transition and the growing epidemic of non-communicable diseases (NCDs). NCDs are already the number one health threat. They account for over 80 percent of the 10.3 million deaths annually and contribute to 82 percent of the total disease burden.¹⁰ And around half of the NCD disease burden is among those of working age, with significant costs to the economy. Urbanization and aging will accelerate a rapid increase in NCD prevalence over the coming decades (Figure 1.6). This will imply a major increase in demand for both curative and preventive health care and will require reorientation of the health delivery system in the face of more complex case management needs. If not addressed, health care costs could escalate rapidly and labor productivity could be compromised. Rapid ageing will make the need for health system reforms even more urgent.

¹⁰Cai et al (forthcoming), *ibid*; WHO (2009).

FIGURE 1.6 Share of population with at least one NCD, 2010–2030

Source: World Bank (2011).

C. Changing social structures and the challenges of response

Besides demographic transition and urbanization, significant changes in social structures have taken place since opening-up, driven by changes in economic and industrial structure, ownership, employment and income distribution, and new social stratification patterns. As for economic structure, diverse ownership patterns and new source of competition have emerged, although the state and collective sectors are still dominant. Social stratification has emerged as a major concern, with the expansion of new economic and social entities driven by private entrepreneurship. Employment opportunities have been created with the emergence of new social strata such as technical and managerial staff employed in private and joint enterprises, and self- and flexible employment. The traditional linkage between citizens through the work unit and even within families has weakened. The resulting diversification of interests and demands of stakeholders, and changing social values reflecting the changes in social structures requires greater efforts to manage conflicts of interests and rebuild consensus on core social values. In recent years, China has attempted to explore new institutional arrangements to build social consensus, but this has to date proven insufficient to cope with the challenges of profound social change.

There is a range of new challenges that China faces as it seeks to achieve the social and economic policy goals that the country has set itself. Some of these challenges are discussed below.

The first challenge is navigating the divergent interests of different stakeholders in the current system. The current patterns of service provision and outcomes result in divergent interests which are likely to generate resistance to reform among those who benefit from the status quo. These divergent interests take many forms. They may be between service providers and users; between state and non-state providers of services; among different categories of users within localities and across space; between the elderly who expect good pensions and affordable healthcare and younger people whose wages are highly taxed; between richer regions which benefit from decentralized financing arrangements and those which would gain from greater equalization of public spending; or between employers, unions and workers. Perhaps the most striking divergence is in the status of urban, migrant and rural populations, where the social contract with the state is in a number of areas fundamentally different.¹¹

In addition, sectoral reforms are likely to encounter the same resistance that they have faced in other countries. For example, increases in the pensionable age and merger of different urban

¹¹The term social contract is not commonly used in China, but is used in this report in the sense of the relationship between the government and its population as originated by Rousseau.

pension scheme will not be welcomed by those approaching retirement or working in PSUs and the civil service. At the same time, reorientation of the health delivery system towards greater reliance on primary care and reforms of provider payment systems is unlikely to be supported by hospitals and specialist doctors which have profited from current arrangements. More generally, efforts to strengthen the role of non-state sector and strengthen citizen voice in oversight of social services may run up against the desire for “business as usual”. The fact that a number of social sector reforms and implementation of central directives have to date not made the desired progress (e.g. higher level pooling of social insurance funds; directives to provide free general education to migrant children; reform of public hospitals) is indicative of the combination of technical and political economy challenges that will need to be navigated in coming years.

A second challenge is coordinating interests across agencies and across regions to overcome fragmentation in policy design and financing and delivery systems. China has fragmentation of policies both between agencies at each level of government, and across space between levels of government. As a result, policies are characterized by systems which are less than the sum of their parts and can lack systemic coherence. In some respects, the emphasis on local experimentation and innovation has served the country well in the reform period. However, the limits of this approach are now revealing themselves, and future progress will increasingly rely on cross-agency and cross-spatial coordination of policy and delivery to achieve more robust and coherent systems, and promote more efficient use of public resources. This can help to achieve as yet unrealized positive externalities in public policy.

A third challenge is addressing concerns about lack of consensus on core social values and social trust. There are frequently expressed concerns that China’s cultural development has not fully matched its economic achievements, reflecting a degree of moral anomie, distorted values of some segments of society, and lack of trust in key social services.¹² Trust in health care providers is among the lowest of public services, with over 40 percent of people not trusting public hospitals and almost two-thirds of citizens reporting that they are suspicious of the medicine industry, reflecting deep concerns about deterioration in professional ethics.¹³ Around one-third of citizens do not trust the educational system. The future of the pension system is also a major concern of urban residents.¹⁴ Surveys of citizen satisfaction find an urban middle class in big cities that is least satisfied of all social groups, citing issues like work stress, the costs of housing, and food safety.¹⁵ Such “soft” indicators of insecurity are confirmed by the high levels of precautionary savings among citizens. China has recognized the urgency of rebuilding moral foundation to guide individual behavior and collective action, but it is at the initial stage in seeking mechanisms to build deeper consensus around core social values.

A fourth challenge is managing rising expectations from citizens of what are appropriate entitlements as China becomes richer. The success of the Chinese economy and the pace of social sector reforms have created rising expectations from citizens that coverage and quality of services will continue to deepen at the same pace as recent years. For migrant populations, the shift in expectations is likely to be even sharper, as the children of first generation migrants have higher expectations of urban hukou and associated entitlements.¹⁶ However, with the likelihood of slowing growth in the medium term, China will inevitably face the dilemma seen in many OECD countries of setting a sustainable level of entitlements. The pace of wage growth, deepening financial protection from social insurance, and rapid expansion of the education system and other social reforms will inevitably slow also, and these adjustments will require careful expectations management by the authorities.

¹² See Zhou, Strengthening and Improving Social Management and Promoting Social Stability and Harmony, *People’s Daily*, Oct. 25, 2006. See also resolutions of the 6th Plenary session of the 17th CPC Party Congress.

¹³ See Wang et al, *Blue Book of Social Mentality* (2011).

¹⁴ Ru et al, (2011).

¹⁵ See report in *China Daily*, March 18, 2010 on results of happiness survey of 70,000 Chinese residents.

¹⁶ See CASS, *Report on China’s Migrant Population Development* (2011), based on surveys of nine large cities in 2009 and villages in 20 provinces in 2010.

Despite the potential obstacles to social development, China has solid potential to address the above challenges. First, there is clear political commitment to address inequality of opportunity and to deepen security, and many policy initiatives to extend coverage and quality of services. Second, robust and sustained fiscal growth means that China is likely to have the resources to realize its policy goals, though this will require improved efficiency in social spending to translate increased resources into improved social outcomes. Finally, a strong tradition of local level experimentation provides ongoing lessons on how to turn policy commitments into better and more equal social outcomes.

D. Conclusion

The issues of inequality of opportunity and outcomes and lack of security are recognized by the Chinese authorities, but there are significant challenges in managing the demographic and social transitions and trade-offs. This needs synergy among macroeconomic, fiscal, labor market and social policies as China seeks to promote a more equal, high-income, and harmonious society. The rest of this report highlights the priority social sector reforms that will be needed. Many reforms are already starting to be addressed by Chinese policymakers, but others have not to date received the attention they may deserve. For both types of policies, the key issue is “how”—prioritizing and sequencing reforms, managing the inevitable resistance from certain players, and coordinating financing and actions across different parts of China and for different social groups to realize the public goods benefits of social sector investments.

The transition toward a high income harmonious society will create a new set of social policy challenges which are in many ways more complex than those it has faced to date. They require for example greater collective action across regions and across social groups in situations where interests diverge. They also include shifting emphasis from quantity to quality of services, from input to outcome of programs, and from government-dominated to co-governance of providers and users that are complex to achieve and monitor and where there are no easy answers from the experience of richer countries on a single “right” approach. “Doing business as usual” will be insufficient to achieve its socioeconomic development goals.

Chapter 2 Equality of Opportunity with Security: Goals and Principles

In response to the social and economic challenges facing China over coming decades, this report argues that it needs to pursue social policies that promote “Equality of Opportunity with Security.” Simply stated, all citizens should have: (i) equal opportunities to access public services and contribute to the country’s prosperity, not limited by the circumstances of place of birth, gender, or other factors; and (ii) basic security from deprivation, for reasons of social equity (or harmony), to prevent any irreversible loss of human potential and to promote economic freedom of the population.¹⁷ A combination of policies can promote both sustained productivity growth and a reduction in inequality to help ensure the social cohesion and stability to underpin growth. Chinese policymakers will confront difficult trade-offs as they seek to realize their social policy goals and their choices will require greater clarity on the underlying principles of reforms. This chapter first outlines overarching goal and vision for social policy reform in China by 2030, before discussing the guiding principles in implementing those reforms. It then elaborates on three key cross-cutting issues which will be critical as social sector reforms evolve over the coming decades. Detailed discussion of the reforms and their prioritization and sequencing follows in Chapters 3–5.

A. The Goal and Vision for social development and policies for China 2030

In light of its social and economic challenges, the overarching goal of China’s social development between now and 2030 would be progressive achievement of equality of opportunity with basic security for all. While China’s social development has made notable progress in the past 30 years, simply doing more of the same is unlikely to be sufficient as it faces new challenges. “Business as usual” will increasingly reveal its limitations, as the Chinese authorities have recognized in the 12th Five Year Plan. The goal of equality of opportunity with basic security is not only fundamental to achieving greater equity in China, but would also contribute to sustaining growth by deepening the human capital base, ensuring a healthy and productive workforce, promoting a more efficient allocation of labor, and reducing overly high precautionary savings as people are more confident of the public safety net.

Underpinning the social development vision will be the need to develop consensus on a common set of underlying values. These include social equity and justice for all, independent of place of birth or other characteristics; acceptance that society should help meet basic needs for all, especially the poor and vulnerable, in order to promote social cohesion; maintenance of a strong work ethic and avoiding welfare dependency; respect and care for family members, in particular the elderly and disabled; developing the professional ethics of service providers, both public and private; and sharing of responsibilities among the state, communities, families, social organizations, and the private sector.

Looking toward 2030, two fundamental questions for Chinese policymakers in formulating its vision of social policy are: what type of social contract they envision with the population as China moves towards high income status, and what would be the respective roles of the state, communities, households and individuals, and the private sector in achieving that goal. There is no “right” answer to the social policy model that high-income countries choose.¹⁸

¹⁷ See World Development Report 2006 for an elaboration of the general framework.

¹⁸ At one end of the spectrum, the social democratic welfare states of Scandinavia have a dominant role of government in providing highly equal access to high quality social services and social protection. In contrast, the “liberal” welfare state model exemplified by United States relies more on market-based approaches and may have higher tolerance for differential access to and quality of social services and social protection. In between

The ultimate approach for China has the opportunity to benefit from its particular blend of social and economic characteristics. One characterization of such a model is the “active welfare society” or “developmental welfare model” which draws on the strengths of government, the non-state sector (commercial and not-for-profit), communities and households.¹⁹ Such a model would promote human capital development, provide basic social welfare but avoid welfare dependency, and contribute to growth and development.

The goal of equality of opportunity with basic security provides a vision for social sector policies and outcomes in 2030 which would include:

- **Equitable and effective social services which build human capital for a healthy and productive population.** Based on the experience of OECD and successful middle income countries, by 2030 China would have an education system that provides an expanded cycle of quality basic education which is accessible to all, starting in pre-primary and continuing to the end of senior secondary schooling. Senior secondary school would be fee-free as it is in most high income countries, and pre-primary schooling available affordably to all, including subsidies for rural, migrant and poor children as needed. Underpinning this would be an early child nutrition program which ensures that children have a sound cognitive base to maximize individual and societal returns to education, and over time also addresses the health risks of rising childhood obesity. Building the human capital base for the higher value-added China will also require a post-basic education system that provides a more flexible and demand-driven set of competencies for young people. By 2030, this would see a post-basic education system where the barriers between technical/vocational and academic educational streams are reduced, by extending the period of development of core competencies for technical students,²⁰ building a more practical and applied higher education curriculum in universities, and allowing for cross-over between technical to academic streams within an over-all qualifications framework. In order to have a healthy workforce and promote healthy aging, the health system would provide more uniform and deeper financial protection for against health shocks for its population, with general revenues financing likely to play a bigger role in total health funding. And the delivery system would have providers who are more accountable for the quality and cost-effectiveness of services through provider payment and other reforms. The reformed health system would be less hospital-oriented than at present, and will be built on a high-quality primary care network that is able to meet more complex case management needs of non-communicable diseases. Case management would also involve greater coordination of patient care across levels of the health system. Both health and education services would have institutionalized mechanisms for citizen voice to promote accountability and inclusiveness.
- Flexible and secure labor and entitlement policies and institutions which promote an internationally competitive workforce where workers continue to share in growth and have labor protection. Achieving the balance between the interests of workers and the need for competitiveness would require “flexicurity”, i.e. a labor market which has the flexibility to promote efficient allocation of workers to their most productive use, but also provides the security to ensure that they have decent pay and conditions which reflect their contribution to productivity. This would first require eliminating the remaining barriers to labor mobility with equity, in particular barriers which are related to inherited characteristics. Most critically, the hukou system would have been phased out no later than 2030 as an instrument of allocating social entitlements to the migrant population. Instead, entitlements would be linked

lie the “conservative” welfare state models of other European countries, the “productivist” welfare states of richer East Asian countries, and hybrid models in countries such as New Zealand and Australia. Each model exhibits considerable diversity. Esping-Andersen (1990); Arts and Gelissen (2009). Re East Asian models, Holli-day (2000).

¹⁹ See DRC presentation, June 2011.

²⁰ Core competencies include communication skills, team work and problem solving.

to residential permits, stable employment or both, depending on the categories of rights. The higher levels of governments in particular the central authorities need to play a more proactive role to encourage local efforts of promoting social inclusion of migrant populations, through a common policy framework, financially, and politically. Labor mobility would be underpinned by a social security system where entitlements are fully portable across the country, and where higher level pooling has reduced the cross-regional disparities in social insurance protection. And over time, the burden of taxation on labor relative to other factors of production would be reduced. In parallel, core labor market institutions would have matured. Key among these would be a wage determination system which is driven less by administrative direction and more by collective bargaining where the interests of workers, employers and the state are fully represented. Finally, China would need by 2030 to have made significant progress in providing for a longer productive life from its urban workers. Retirement ages would be significantly higher than at present, flexible work arrangements would make continued work more attractive, and life-long learning opportunities for workers would help to reduce the depletion of their human capital as they age.

- **A basic but secure social protection system which provides for a moderate level of security for all while respecting fiscal constraints.** By 2030, China would have fully coverage of pension and health insurance systems, with integration of currently separate sub-systems among different segments of population (rural, urban, migrants) and across different segments (civil servants, PSU employees, workers, and residents). Differences in levels of benefits would remain, but the achievement of national pooling for pensions and provincial or national level pooling for health insurance would give more leeway for policymakers to equalize basic benefit levels across the country. In addition, general revenues financing would play an ongoing important role in both pensions and health, through subsidies to rural and urban informal populations, and tax-based incentives to formal sector workers to participate in supplementary. In addition to pensions, China would by 2030 have a well-developed system of aged-care and long-term care services which draws upon the human and financial resources of the government, the non-state sector, communities, and households and prioritizes a minimum level of service for the poor. Finally, the safety net for the poorest and most vulnerable would have greater coherence between different parts of the social protection system so that it assures adequate and affordable minimum coverage of benefits for poor households but also ensures that the near-poor are not disadvantaged and that “poverty traps” are not created.

B. The implementing strategy for social policy reforms

In order to achieve the goal of equality of opportunity with basic security and the vision of outcomes for 2030 outlined above, key principles underlying social policy reforms should include:

- *Promote macroeconomic and structural reforms.* Social policy reforms should be consistent with, and ideally promote, macroeconomic and structural reform goals. China is pursuing several key macro and structural directions, including rebalancing of the economy toward higher domestic consumption, reducing distortions in factor markets, moving up the value chain in production, and rural-urban integration. Different social policy choices may promote or hinder achievement of these goals, and assessing their contribution to macro and structural reform goals is vital.
- *Ensuring efficient and sustainable use of public resources.* Social sector reforms should be consistent with fiscal constraints and promote a more efficient use of public resources. The rapid growth in fiscal resources in recent years has diluted the emphasis on efficiency in use of public resources in the social sectors. With overall and revenue growth likely to slow in the medium term, there will be an increased premium on efficient use of public resources.
- *Promote co-responsibility and citizen voice.* As in many areas of economic policy, social policy reforms should be guided by the principle that the state cannot “do it all”, and should

seek to promote deeper participation of stakeholders such as communities, non-governmental organizations, and the non-state commercial sector. This will require new and more differentiated roles for the state, not only as a provider and funder, but also as a regulator and facilitator.

- *Support and cultivate prevailing cultural values, social institutions and practices.* Effective and efficient social policies need to be designed with close attention to prevailing cultural values and practices. In China, the role of the family is of particular importance, but has not always been taken into account in formulating public policies (e.g. absence of survivor pensions; individualized health insurance coverage; hukou policy which creates split families and left-behind children). Ensuring a mutually reinforcing interaction between public policy and private behavior is thus vital in terms both of social harmony and in terms of economic efficiency.
- *Aligning policy reforms and implementation capacity.* The pace of social policy reform in China since the 1990s has been breath-taking. But delivery systems have often struggled to keep pace with policy reform, and the gap between policy and implementation has been highly variable across the country. The substance and sequencing of social policy reforms should be consistent with implementation capacity to avoid a mismatch between policy commitments and on-the-ground delivery. This will also promote policies which are simpler to understand and less prone to abuse.
- *Combining bottom-up with top-down reforms in a systematic way.* Chinese social policy has benefited from local piloting and innovation, both by government and the non-state and community sectors. This has often been a fertile testing ground for subsequent national policies. At the same time, it has sometimes resulted in fragmented approaches and implementation mechanisms across regions which can make subsequent consolidation of policies and delivery systems challenging (e.g. information systems; overly localized pooling of social insurance). A more systematic linkage of bottom-up local pilots and national policies can ensure that fragmentation is reduced and that national policies take into account local variation.

C. Key cross-cutting issues in social policy reform

As China's social reforms evolve, there are a range of cross-cutting themes and trade-offs which policymakers will seek to address. Four in particular deserve elaboration in light of the above guiding principles of reform:

(i) Financing and efficiency in social programs:

A first key issue is financing of the social sectors, where existing programs, planned reforms and demographic transition will drive significantly higher social spending over coming decades. The transition from middle- to high-income status exhibits an almost universal increase in the size and share of public spending devoted to the social sectors, in particular social security programs and related services, especially for the elderly. For example, public spending on pensions alone accounted for over 10 percent of GDP on average in OECD countries in 2008. Similarly, there is ever-higher public spending on health care in OECD countries, averaging over 7 percent (and rising) across the OECD in 2008.²¹ China's recent health expenditure trajectory suggests that it will not be immune to such an effect. Even among middle income countries, China's social spending is significantly lower than large MICs such as Brazil, Russia, and Turkey. In China's case, it faces the double fiscal pressure of its demographics and policy commitments to rapid coverage expansion of pensions, health insurance, and higher levels of education.

²¹ OECD, *Society at a Glance* (2011). Hofmarcher et al (2009), *How Expensive is the Welfare State?* See also Economic Restructuring report for benchmarking of social spending among OECD countries.

In assessing the appropriate future level of social sector spending, the impact of increased government social spending on consumption is an important additional effect to take into account. A contributory factor to China's high households savings rates is the need to "save for a rainy day" due to the historically high burden of private health and education spending and the under-developed social protection system. IMF research finds that: (i) every 1 yuan of incremental public spending on health results in a 2 yuan increase in the consumption of urban households; and (ii) that an increase in social spending of 1 percent of GDP spread evenly across health, education and pensions results in a 1.25 percent increase in household consumption as a share of GDP, with the consumption impact highest for incremental spending on pensions and health. These results are consistent with observed behavior among rural households, where savings rates are significant lower among those with social insurance.²²

While social spending will increase, international experience also suggests that the expansion of social sector spending requires a close eye on fiscal constraints to avoid unsustainable commitments. Projections done for this report suggest that by 2030 public spending on pensions as a share of GDP could double and public spending on health increase by over 50 percent simply as a result of demographic trends (Figure 2.1).²³ If policy commitments to expansion of pension coverage to rural and urban informal workers, and to expanding enrollments at higher levels of education are taken into account, the increases could be significantly higher (Figure 2.2). While it is stressed that the projections are at best indicative, even the "base case" growth due to pure demographics suggests a need for reductions in other elements of public spending and expansion of new revenues to accommodate social obligations as the population ages. They also confirm the critical role of ongoing reform of the urban pension system.

FIGURE 2.1 Base case demographic impact on social spending, 2009 policies (% GDP)

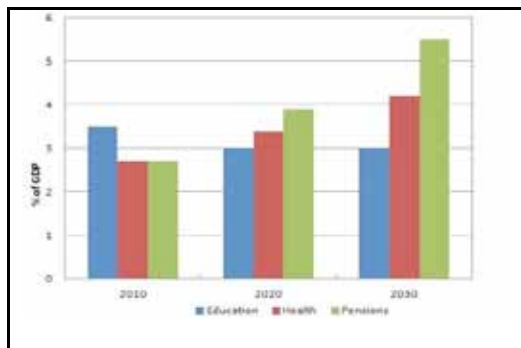
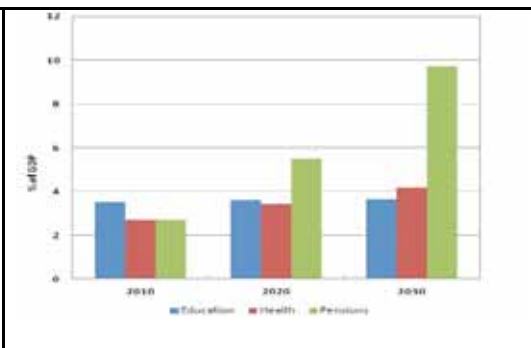


FIGURE 2.2 Indicative social spending with current policy targets (% GDP)



Source: Chen and Mason (2011), using National Transfer Accounts for China. Expenditures based on age-specific spending with 2009 policies, demographic and GDP projections. For GDP assumptions, see Supporting Report 1. Note: Education does not include pre-school education spending.

While social spending is certain to increase, ensuring that it achieved the desired social and economic outcomes will require a range of efficiency-enhancing reforms. At present, there are inefficiencies in delivery models in the social sectors which dilute the impacts of incremental spending. The most notable is in the health sector, which has an over-reliance on hospital-based care and under-emphasis on primary and preventive care. Neither helps to address the high and

²² Barnett and Brooks (IMF, 2010), and Baldacci et al. (IMF, 2010). Cai, Giles et al (forthcoming) re rural savings.

²³ The projections are done using National Transfer Accounts (NTA) modeling assuming constant real age-specific unit costs for social services and pensions by age cohort over time and overlaying China's demographic trajectory for the base case. The "explicit targets" scenario overlays the base case with policy commitments already made by the authorities to expand coverage of social programs (e.g. rural and urban resident pensions; expanding senior secondary and higher education). See Mason and Chen (2011).

increasing burden of NCDs. Similarly in the area of pensions, negative real interest rates on individual accounts contribute to falling financial protection in old age, despite the continuation of high pension contribution rates. In these and other areas of social spending, simply putting more money into existing systems will have limited impact without continued structural reforms. Achieving such efficiencies will also require a further shift in administrative systems to promote accountability for results through better performance monitoring and introducing a more rigorous system of impact evaluation for public programs.

(ii) Co-responsibility in service delivery and citizen voice

A second cross-cutting issue is how China can evolve toward a more diverse model of social service provision with new roles for the state and co-responsibility with the non-state sector and households. To date, the public sector has been dominant as the main provider of social services, with a limited role for non-state provision and a circumscribed role for citizen participation and voice. Looking ahead, the state cannot and probably should not “do it all” as it seeks to provide a wider and deeper range of social services and social protection programs. The experience of OECD countries suggests a range of innovations in unbundling financing, provision, and regulation of social services which China could benefit from exploring and incorporating into national policies. Such approaches open up new roles for non-state sector provision and public-private partnerships in social sectors: from hospitals and clinics, to pre-schools and universities. In some fields, such diversification may also benefit from enhanced partnerships with international players, who can accelerate the adoption of good international practices. Plurality of service provision also offers a greater role for communities and the non-governmental sector which pilot experience in China and international experience suggests have an important role to play, often with financial support from the state. Achieving plurality of social service provision while ensuring quality will require the state to assume more complex roles in licensing, accreditation and regulation of providers. Developing regulatory capacity in particular will be challenging, as historical challenges in achieving effective regulation in areas such as pharmaceuticals, food safety, and pension and housing fund management demonstrate. It will also require in some areas a willingness to “step back” from micro-intervention in the operations of social services and focus instead on setting rules-based policy and regulatory frameworks and set of incentives.

A related direction which will underpin social policy is the need for promoting greater citizen participation and voice in social sector programs. A fundamental element of promoting accountability in social sectors is moving to a more rule-based system where access to quality public services is based on policy and progression in employment and education is based on merit or need rather than connections or wealth. There is an important and largely unexplored role for “bottom up” accountability in promoting such a vision, through an increased role for people in monitoring and managing social services. Historically, citizen voice in the operation of social services has been limited, though localized innovations are spreading.²⁴ Increasing citizen participation in basic service delivery will require new ways of doing business for service providers, and is also consistent with greater sharing of responsibilities in service provision.

(iii) Aligning the roles of levels of government to promote equalization

A third cross-cutting challenge in reorienting social policy is the need to re-examine the roles of the central and sub-national authorities in promoting greater equalization of social services. Promoting greater equality of opportunity is likely to involve a stronger role over time for central financing in redistribution of spending over space across China. It will also require a stronger role for the centre in setting national policy frameworks in areas such as hukou reform

²⁴Gong and Yu (2011).

and management information systems where collective action is needed. However, current inter-governmental fiscal arrangements and the incentives of local authorities make progress challenging. The national authorities have already moved in this direction with central funding of rural education, pension subsidies for rural workers and urban residents, and subsidies to health insurance premiums. But financing remains highly decentralized by international standards and disparities in quality of social services and the level of financial protection from social insurance remain high. Directions for reforms of the inter-government fiscal system are discussed in the Economic Restructuring report.

(iv) Strengthening institutional coordination

In order to improve social outcomes, it will be vital to strengthen intra- and inter-sectoral coordination in policy development and delivery of social services. As economies get richer and aged, effective social services increasingly require better intra- and inter-sectoral coordination. For example, within health services, coordination of care across levels of service is critical for managing NCDs, and for education the boundary between TVET and academic streams becomes more porous. Across sectors, new needs like long-term care require inputs from social welfare, health and other agencies, while labor policy for older workers requires coordination of social security and training initiatives. Developing an administrative system of cross-sectoral coordination requires the transformation of government functions and responsibilities.

D. Conclusion

There is increasing consensus on the goals and vision of social policy reform in China, but less clarity on how to reach them and how to navigate the obstacles that lie ahead. The following chapters discuss in detail the current situation and possible elements of reform in the following areas:

- *Expanding opportunities for all.* The report proposes action in four areas: (i) expanding public investments in early child nutrition and education, especially for rural and poor children; (ii) promoting “equality of quality” in compulsory education among different areas and social groups and extending affordable access to post-compulsory education by universalizing free senior secondary education and reforming TVET and university education, including reducing the barriers between technical and academic streams; (iii) accelerating reforms of health financing and provider incentives and rebuilding China’s primary care system as the basis of a system of coordinated care across levels of care to manage the epidemic of non-communicable diseases (NCDs) and avoid uncontrolled cost escalation of health services; and (iv) enhancing citizen voice and participation in the delivery and oversight of social services, and enhancing the role of the non-state sector as service providers.
- *Developing a flexible but secure labor market.* To achieve this balance, the report proposes: (i) lowering barriers to mobility by ensuring the portability of pension and social security rights; (ii) phased reforms of the hukou system; (iii) ensuring that older urban workers do not exit the labor force prematurely, through pension system reforms, more flexible work arrangements, and expanded training opportunities; and (iv) building and reforming labor market institutions, in particular in the areas of labor taxation and wage determination policy and practice.
- *Enhancing security and helping people better manage risks.* Helping them manage these risks requires: (i) structural reforms of the pension system so that people have adequate support in old age from a sustainable system, as well as deepening financial protection from health insurance; (ii) expanding pension coverage, in particular for rural citizens, migrants, and informal sector workers in urban areas; (iii) expanded aged and long-term

care provision; and (iv) greater coherence across different elements of the social protection system to avoid poverty traps.

The scope and depth of social policy reforms points to the need for prioritization and close attention to sequencing of reforms within and across policy spheres. This will require a process for agreeing the top priorities, and decisions on what is possible over the short, medium and longer terms given fiscal constraints, implementation capacity, and political economy challenges. The following chapters suggest a possible sequencing of reforms which takes account of the constraints.

Chapter 3 Expanding Opportunities and Deepening Human Capital

All people need equal opportunities to access quality, affordable education and health services if China is to build the human capital base to reach high-income status by 2030 and share prosperity in a socially sustainable manner. The vision for 2030 for China's social services is discussed in Chapter 2. This chapter outlines policies to achieve this vision, proposing action in six areas:

- Ensuring that all children get off to a good and more equal start in life by expanding public investments in early child nutrition and education, especially for rural and poor children.
- Narrowing the disparities in basic education quality across space and social groups and extending free access to senior secondary education in a phased manner that is consistent with fiscal possibilities.
- Deepening reforms of technical/vocational and higher education to promote a workforce that has competencies which are relevant to the current labor market but also sufficiently flexible to adapt to the rapidly changing needs of the future labor market.
- Moving from an emphasis on treatment of disease to health promotion, which will require rebuilding China's primary care system to manage its new disease burden—particularly the epidemic of NCDs—and reorienting delivery systems away from over-reliance on hospital care through incentives to promote use of primary care.
- Deepening reforms of financing and purchasing of health care services in order to promote more equal health services for all citizens and ensure that the system provides quality services in a more cost-effective manner.
- Increasing the role of the population in oversight and some aspects of management of education and health services at the grassroots level to promote citizen voice and accountability.

An important cross-cutting theme in implementing the above policy and institutional reforms is diversifying the roles of state and non-state players in order to promote greater plurality of social service provision. To date, the public sector has been dominant across the social sectors as the main provider of services, with a limited role for non-state provision and a circumscribed role for citizen participation and voice. A key insight from international experience is the potential for unbundling the financing and provision nexus in social services, exploring diverse options including public financing with private provision and public financing through demand-side interventions. If China is to realize its ambitious social service expansion and quality enhancement goals within its fiscal constraints, an expanded role of the non-state (for profit and not-for-profit) and community sectors will be essential. This in turn will require new roles for the state as a regulator, providing licensing and accreditation systems and quality assurance for all providers.

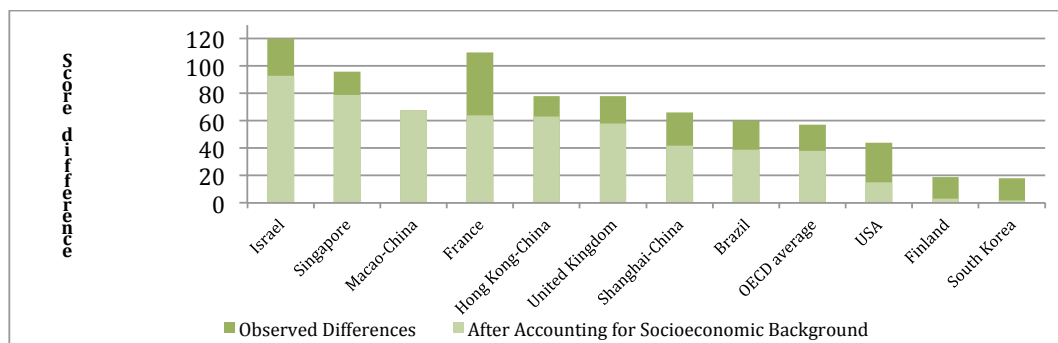
A. Running from the same starting point: Early Child Development and Education (ECDE)²⁵

Evidence from developed and developing countries finds that investing in ECDE yields high economic returns, is the most cost-effective strategy to break inter-generational transmission

²⁵ Early child development and education (ECDE) covers parents and children from conception to 6 years old with a range of interventions including: (a) nutritional and health care interventions for young children and mothers to ensure optimal physical and cognitive development; (b) early education programs—institution, community, and/or home-based—which aim to improve school readiness skills, including language, numeracy, and psychosocial skills; and (c) parenting and caregiver education and counselling.

of poverty, and improves productivity and social cohesion.²⁶ An example can be seen in PISA test scores for children attending at least one year of pre-primary school, which are significantly higher across the developing and developed worlds compared to those of students without such schooling.

FIGURE 3.1 PISA score differences between students with at least one year pre-primary education and students without



Source: OECD (2010).

Poor nutrition in childhood has immediate and serious impacts on children's health and educational performance, which can have lasting deleterious effects. Anemia results in cognitive impairment, altered brain function, and physical impairment.²⁷ Apart from direct and immediate effects, poor child nutrition has been shown in developed and developing countries to have serious negative consequences for educational performance.²⁸ Negative consequences of poor childhood nutrition can also be seen in adult health, human capital, and productivity during working life. In China, the Center for Disease Control and Prevention found that for every 1 percent of low height-for-age, physical productivity in adulthood is reduced by 1.4 percent.²⁹

(1) Current Status and Challenges in ECDE

(a) Poor nutrition among plenty for China's rural children

While China has made significant progress on child nutrition outcomes, it continues to face a major unfinished agenda in poorer provinces and poor rural counties nationally, especially for very young children.³⁰ Both national figures and studies within central and western provinces indicate that a substantial challenge remains in addressing early child nutrition. Data from the China Household Nutrition Survey over the past decade confirms overall progress but also large remaining disparities. Stunting affected over 20 percent of children under 5 years of age in poor rural counties, more than twice the national average in 2010 and almost six times the national urban rate.³¹ Similarly, anemia rates among very young children in poor rural areas

²⁶High rates of return to investments in ECDE can be seen in studies from the United States as well as developing countries, including Colombia (ECDE attendees 100 percent more likely to be enrolled in later grades), Turkey (20 percentage points higher school enrollment in teens), and Bangladesh (58 percent better performance on standardized tests).

²⁷Yip (2001) for a review of research.

²⁸Jukes et al (2008).

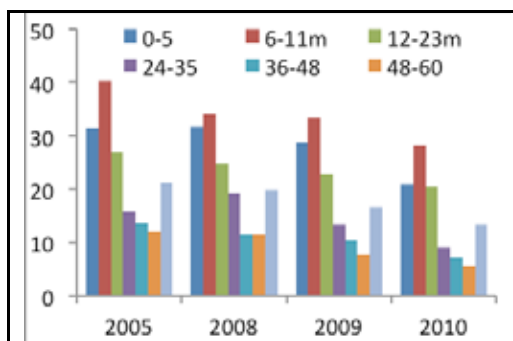
²⁹Chen et al (2010).

³⁰There were until late 2011 592 poor counties in China, where around 20 percent of the country's population lives, though this increased with the raising of the rural poverty line in December 2011.

³¹According to WHO, stunting rates over 20 percent are considered medium level globally, and 40 percent anemia prevalence is "severe".

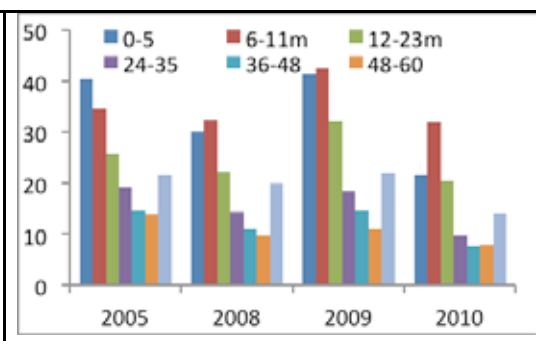
remained stubbornly high from 2005–2010, especially for children 0–12 months of age, with anemia rates of over 40 percent in poor rural counties in 2009 (Figures 3.2 and 3.3).³²

FIGURE 3.2 Anemia prevalence in rural children under 5 years of age, in months (%)



Source: CHNS, various years.

Figure 3.3 Anemia prevalence in children under 5 years of age in rural poor areas, in months (%)³³



Source: CHNS, various years.

Looking ahead, an emerging challenge in child nutrition is rising rates of obesity, a problem that Chinese evidence suggests get worse with rising wealth. In 1980s, child overweight and obesity children were not a big issue, with obesity only 0.2 percent for boys and 0.1 percent for girls. But the prevalence rates of overweight and obesity have increased rapidly since mid 1990s, especially in big cities. By 2005, the prevalence rate among 7–18 year olds was 7 percent and 3.6 percent for males and females respectively in urban areas, but significantly higher for the younger children in the range at 10.6 and 5.1 percent for 7–9 years old boys and girls respectively. Twice that share was overweight. Both levels and rates of increases in childhood obesity also show regional variation, with rates in coastal provinces increasing faster than in central and western provinces from 1985–2005.³⁴

TABLE 3.1 Prevalence of Overweight and Obesity of Students 7–18 Years Old in Urban and Rural China, 2005 (%)

Age	Urban Areas				Rural Areas			
	Male		Female		Male		Female	
	Overweight	Obesity	Overweight	Obesity	Overweight	Obesity	Overweight	Obesity
7-9	12.6	10.6	8.0	5.3	6.3	4.4	4.8	2.8
10-12	16.1	8.3	7.1	4.4	7.7	3.2	3.6	2.1
13-15	12.3	5.3	7.5	3.0	5.4	2.1	4.8	1.3
16-18	11.3	4.3	7.2	1.7	5.4	1.5	5.5	0.6
Average	13.1	7.1	7.4	3.6	6.2	2.8	4.7	1.7

Source: Ji (2008).

³²See WHO Global Database on Anemia, various years. While the comparison of the very youngest in poorest counties in a crisis year with the cohort 6–60 months in other countries can be misleading, it is nonetheless instructive to note that the poor county anemia rates for the very young in 2009 were equal to or above the most recently available rates for 6–60 month children in Afghanistan (37.9% prevalence in 2004), Egypt (29.9% in 2000), Guatemala (38.1% in 2002), Namibia (40.5%), Tajikistan (37.7% in 2003), and Vietnam (34.1% in 2000–01).

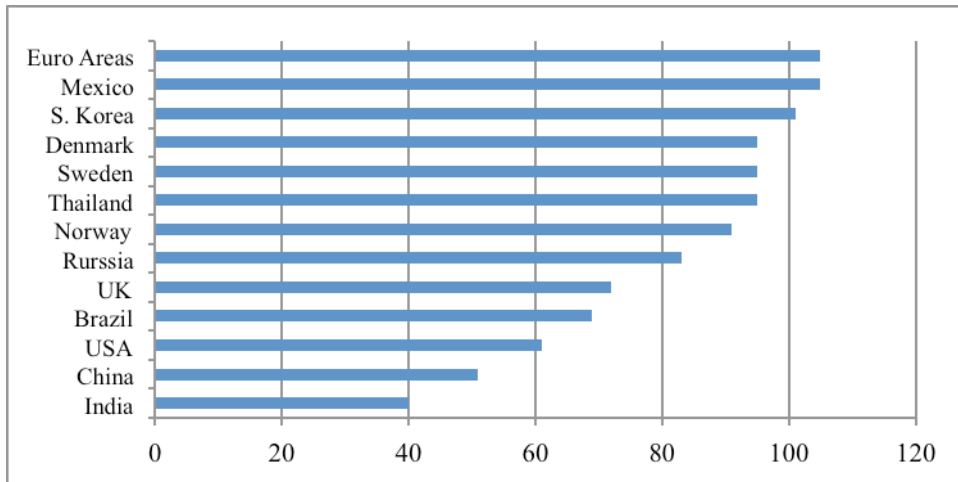
³³Notably, the data shows volatility in the anemia rate in the short period 2008–10 in rural poor counties—particularly among children 0–2 years of age—where anemia rates rose by between 31–45 percent in a single year from 2008 to 2009 then dropped below 2008 levels by 2010. This spike was presumably a consequence of the global financial crisis. Given the long-term effects of nutritional deprivation, both the average levels and their fluctuation are real causes for concern.

³⁴Ji, et.al. (2004); Ji (2007); Ma and Wu (2009). While obesity levels as measured by the CHNS are notably lower, rates still increased by more than four times in the 1980s and 1990s. Li et. al (2008). For comparison, in the mid-2000s, the national rate of childhood obesity in the USA was around 11 percent. Dehghan et al (2005).

(b) Pre-primary education—behind before starting

China’s coverage rates for pre-primary education (ECE) are well below those of high—and a number of major middle-income countries and vary widely between urban and rural areas. In 2009, around 51 percent of Chinese children attend any ECE, a share that is well below emerging economies such as Mexico and Brazil. The ECE coverage averages in China disguise wide disparities between rural and urban areas: while coverage in urban areas nationally was around 80 percent in 2009, it was only around 30 percent in rural areas. The rural average is well below the national average for India, which had ECE coverage of 40 percent in the late 2000s (Figure 3.4).

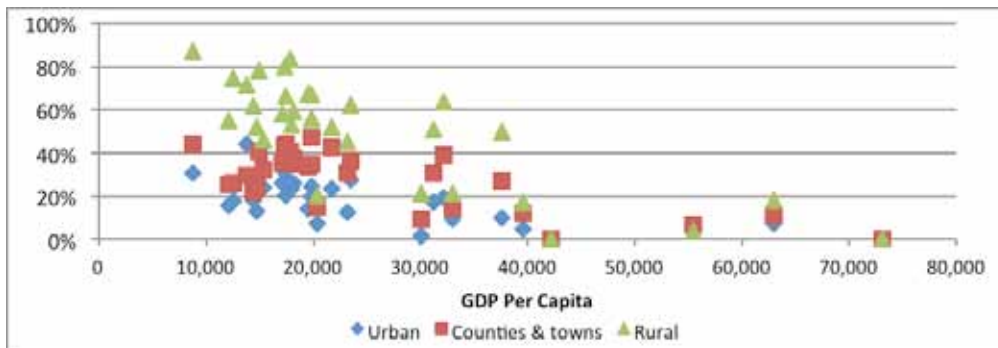
FIGURE 3.4 International comparison of coverage of nursery/kindergarten for 2–5/6 year olds (%)



Source: OECD (2008), and China 2009 in World Bank (2011).

Just as importantly, among those enrolled in pre-primary, the *length* of pre-primary education in rural areas is well below that in cities and towns. Urban children have a much earlier start in the education system, and children in counties and towns have an earlier start than their rural peers. In 2008, about 48 percent of enrollment in pre-primary in rural areas was in one-year only classes, and the share goes as high as 87 and 83 percent in Guizhou and Ningxia, respectively (Figure 3.5). In contrast, one-year pre-primary enrollment is only 13 percent of total pre-primary in urban areas and 25 percent in county towns. In terms of the general education system, rural and migrant children—particularly in poor areas and households—are “behind before they start.” International evidence shows that such early educational deficits are very difficult to overcome in terms of later school performance.

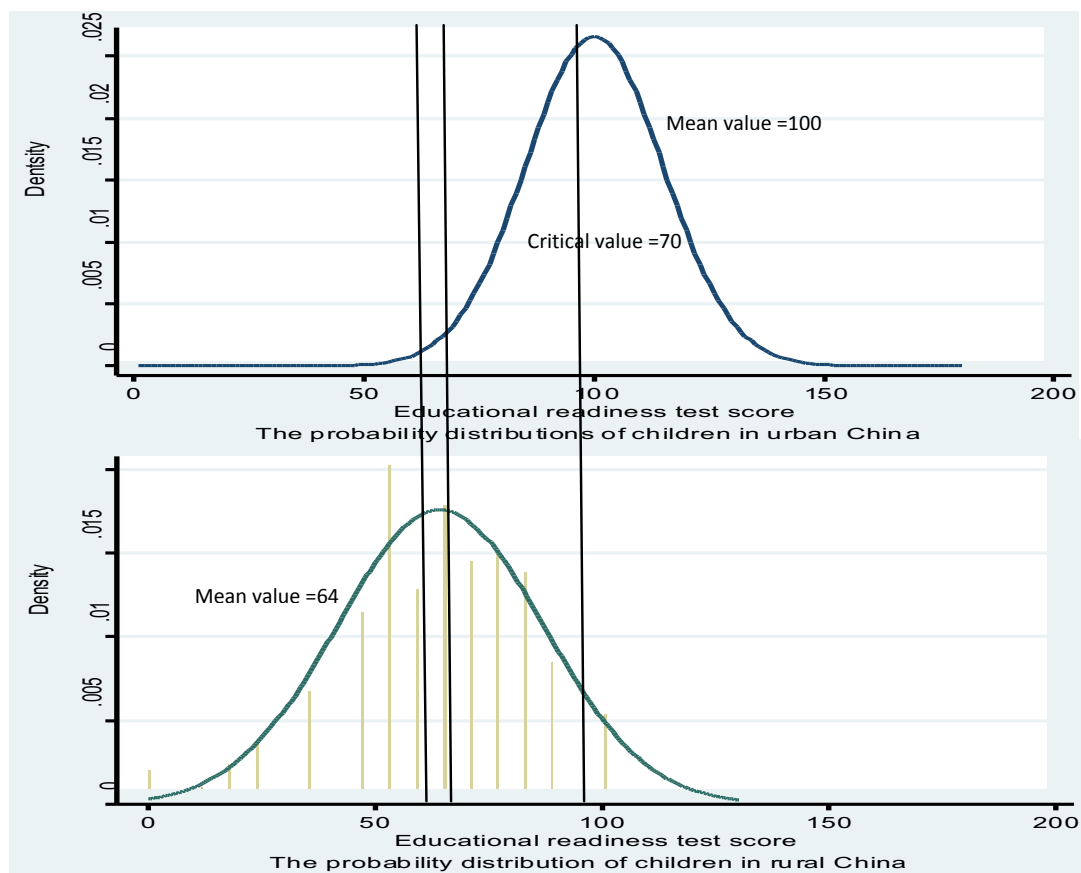
FIGURE 3.5 Share of children attending ECE programs who attend one-year only programs by province and urban/town/rural, 2008



Source: World Bank (2011).

Major *quality* differentials in pre-primary education between different areas are reflected in indicators of educational inputs, which in turn translate into large disparities in school preparedness. In 2008, the rural average teacher-to-pupil ratio was twice the national average of 17:1, while the urban average was under 10:1. The situation in some of the poorer provinces is even more striking, with ratios in Ningxia and Guizhou of 167:1 and 164:1, respectively, in 2008. The share of qualified pre-primary teachers in rural areas was just over one-third of that in urban areas.³⁵ These disparities translate into major differences in school preparedness between rural and urban children. Two studies using the same measure of school readiness found that with a common score of 70 being needed to meet the basic school preparedness standard, urban children had a mean value of 100, with only around 3 percent of urban 4–5 year olds being considered “unready” for school. In contrast, the same methods in a study in villages in Gansu, Shaanxi, and Henan provinces found even the mean score for rural children (64) was below the minimal school readiness standard (Figure 3.6).

FIGURE 3.6 Distribution of educational readiness test scores for children at age 4–5, Urban (top panel) and rural (bottom panel) China



Sources: Data in top panel, Ou, 2007. Data in bottom panel, Rozelle (2011) for Gansu, Henan and Shaanxi.

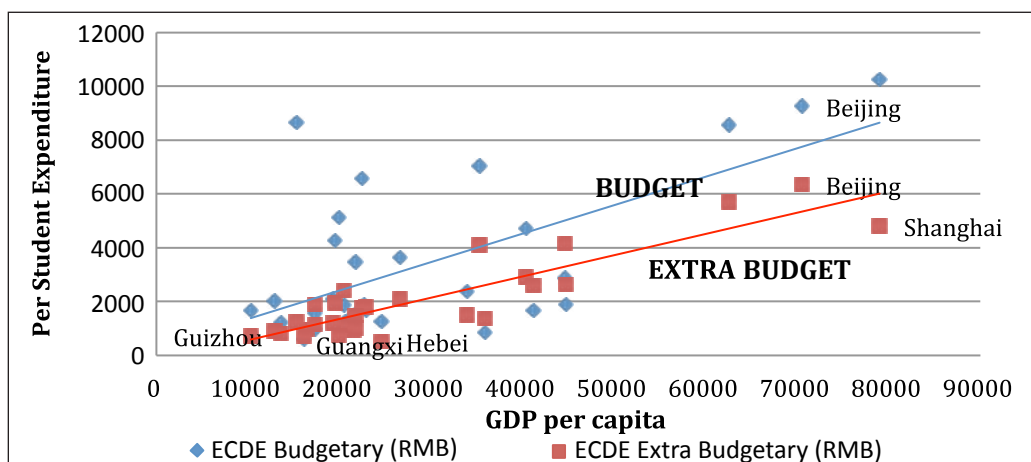
A fundamental problem in improving equity of access and quality of pre-primary schooling is the very low level of public financing. Financing remains overwhelmingly private even in most public facilities, with an estimated 70 percent of funding out of pocket (OOP), compared to an OECD average of only 20 percent.³⁶

³⁵Rozelle (2011).

³⁶World Bank (2011). The China OOP estimate needs to be explored further. It is based on estimates from information on fees in public and private pre-primary and education statistics on government spending.

While China has targeted continued expansion of ECE in the 12th Five Year Plan, allocations to ECE within the public education budget have to date been very low relative to student shares and relative to OECD benchmarks. In 2008, ECE accounted for 9.3 percent of total enrollment in education, but public spending on ECDE was only 1.3 percent of total public expenditure on education (0.01 percent of GDP)—far below the OECD average of 8 percent of total public education spending or 0.5 percent of GDP (OECD, 2007). In addition, large and growing gaps can be seen between richer and poorer provinces, with the share of extra-budgetary funds being significant and an incremental source of inequality (Figure 3.7). Per student government expenditures for ECE in the lowest spending provinces are less than one-tenth the level of cities such as Beijing and Shanghai.

FIGURE 3.7 Budgetary and total spending per student on ECDE by province, 2009 Unit: RMB



Source: MOE (2010).

Lack of public financing means that rural and poor households struggle to afford pre-primary education for their children. As an example, the three-province study of pre-primary education in Gansu, Henan, and Shaanxi found combined tuition and school lunch fees of RMB 800 per year in 2008, a considerable amount compared to average per capita income of just over 1000 RMB for a rural family at the 2007 poverty line.³⁷ Although seemingly modest, such fees can therefore be a very high barrier to access for the poor.

(2) Addressing the Challenges of Early Child Development

Early child development is a key investment in the productivity and good health of the workers of tomorrow, and can also be a strong equalizer. Since children under 6 today will be the labor force during the period of China's sharpest period of aging and labor force decline, it is essential to ensure that the human capital foundation is laid for all of them now. This section proposes measures to promote equality of opportunity in early child nutrition and education.

(a) Laying the foundation of good child nutrition

Child nutrition in poor rural areas should be a high priority of government policy in the short-medium term. Within these areas, targeting of specially vulnerable groups such as left-behind children would be crucial, as well as closer monitoring of the nutritional status of poor and migrant children in urban areas. China has huge potential to make a difference in a very affordable manner. Pilots by agencies such as CDRF, CDC, and UNICEF demonstrate that major impacts on nutrition and cognitive functioning can be made at low cost and at low risk. For

³⁷Rozelle (2011).

example, a China CDC intervention of low-cost micronutrient supplementation in children under 2 years old in Gansu improved full-IQ by up to 4.5 points, with effects persistent in follow-up studies to age six.³⁸

Starting in the short term,³⁹ there should increased emphasis on coordinated action to combat childhood obesity. Where cities like Beijing, Tianjin and Shanghai are today is a precursor of the levels and rates of increase that all of China will experience over coming decades. But just as with under-nutrition, there are cost-effective interventions that have been proven in China and globally to reduce obesity and improve child and subsequent adult health.⁴⁰

In order to operationalize the enhanced policy commitment to child nutrition—both under-nutrition and problems of obese and overweight children—consideration should be given to rapid initiation of a national child and mother nutrition program. Designation of institutional leadership from the national to grassroots levels would be essential to promote coordination. Child nutrition is an area of interest for many public agencies in China, including the Women's Federation, Ministry of Health and CDC, the State Council Working Committee on Women and Children (chaired by Vice Premier), the National Population and Family Planning Commission, Ministry of Education, Ministry of Civil Affairs, and the Leading Group on Poverty Reduction. However, significant hurdles remain in terms of the institutional coordination, standardization of approaches, and quality assurance. Coordination could be handled at the national level by the group led by the Vice Premier, but the agency that would take the lead at sub-national level would need to be clarified. Key elements of such a program could include:

- *Universal implementation of nutritional supplementation for children 0–3 and pregnant/lactating women in all rural poor counties, and ideally central and western provinces, and for migrant children in urban areas.*⁴¹ The costs of such a program are not prohibitive: even at current low-volume production, the cost of a 9 nutrient supplement for one year is around 260 RMB per child—very cost-effective in light of high returns to health, cognitive development, and productivity.
- *Inclusion of a parenting education program.* Family feeding, hygiene, and other practices are major contributors to nutritional outcomes. International and Chinese evidence points to the benefits of parallel parenting education to ensure both that the supplementation itself is regularly administered and that practices negatively affecting nutrient intake and absorption are reduced. Such programs have proved effective in many developing countries, including Brazil, Mexico, and Vietnam.⁴² In China, the MOCA Social Welfare Department will be piloting community-based delivery of comprehensive child welfare service packages.
- *Identification of funding sources for pilot and rollout phases.* The key question will be what combination of incremental funding and reallocation of existing resources would be appropriate to support such efforts. A potential source for the pilot phase could be funds allocated by the State Council Leading Group Office of Poverty Alleviation and Development which has indicated that reduction of child poverty would be a higher priority in the 12th Plan period.⁴³
- *As part of the overall nutrition program, development of a national program against childhood obesity.* Pilot programs in China suggest that a combination of family-, school- and community-based interventions can be very cost-effective, including a focus on grandparents. Direct interventions such as physical activity, health education and dietary interventions

³⁸ Chen et al (2010). Results on development quotient (DQ) and IQ were all statistically significant.

³⁹ For the purposes of this report, the short term is the next 2–3 years, the medium term from then until 2020, and the long term from 2020–2030.

⁴⁰ See Gao et al (2008) for a review of 20 studies on obesity interventions in China, combining dietary intervention, physical activity and health education, of which 17 studies found significant improvements.

⁴¹ It could be the “yin yang bao” packages already piloted in poor areas of China. See Chen et al (op.cit).

⁴² World Bank (2011).

⁴³ Speech of Deputy Chief of Office, reported in China Daily, May 27, 2011 at China Child Poverty Forum.

could be combined with collaborations with local governments and industry to promote healthy school meals and control targeting of obesity-inducing foods at children.

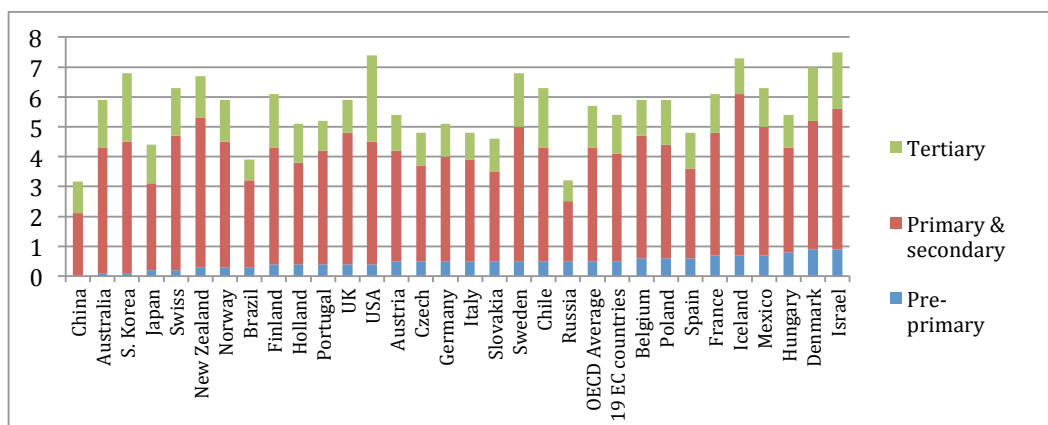
- *Agreement on child nutrition outcome indicators that could be included in performance management indicators for officials.* Draft indicators that have been proposed by China CDC could be reviewed as a basis for such indicators. It will be important to keep such indicators simple and ensure that the monitoring system is capable of producing them with the required frequency.

(b) Expanding early child education and ensuring quality access for all

For early child education (ECE), the major challenge lies in an effective expansion strategy for rural, migrant and poor children. The National Plan for Medium and Long Term Education Reform and Development sets targets for expansion of ECE until 2020, such as almost universal coverage of one-year kindergarten and three-quarters of children in three-year pre-primary education programs. These are laudable, but leave questions of the appropriate (and fiscally feasible) role of public financing in the expansion, and the appropriate delivery models consistent with the financing strategy and the capacities of the state, communities, and the non-state sector in ECE provision.

To achieve China's ECE expansion targets, a significantly higher commitment of public resources to ECE is needed, in line with practices in most OECD countries (Figure 3.8). While the OECD average of public spending on ECE of 0.5 percent of GDP may be ambitious in the short term, China does have significant scope for major expansion from its currently very low public spending base. If China achieved the share of total public education spending that OECD countries have (i.e. 8 percent), that would suggest a sensible ECE public spending target of just over 0.3 percent of GDP by 2020. The current levels of public ECE investment represent a missed opportunity for an investment that is highly productive and highly equitable. China's commitment to expand the overall educational budget, combined with the shrinking cohorts of young children, provide the possibility to change the situation.

FIGURE 3.8 Comparison of public expenditure on education by level, 2008 (% GDP)



Source: World Bank (2010).

In the short term, incremental public spending on ECE should prioritize rural, migrant and poor children. Given China's starting point and simultaneous expansion in other parts of its education system, ECE for all 3–6 years old that is fully state-funded seems unlikely for the medium term. The recommendation of this report is that public subsidies focus in the coming 3–10 years initially on children in poor rural counties, gradually expanding to rural areas in central and western provinces and to migrant children in urban areas. A significant fiscal injection from the national authorities would be required, which could in principle be done with

supply-side subsidies to providers and/or demand side subsidies or fee exemptions for targeted households.

A financing option that could be piloted on a wider basis is cash transfers targeted to poor children to incentivize participation in ECE (conditional cash transfers, or CCT). This scheme has proven to be effective in other developing countries, and pilots in China indicate that it has significant potential.⁴⁴ A pilot in Henan province for example found that kindergarten attendance among poor rural children whose families received a 200 RMB stipend and had their fees covered was 98 percent, against a control group with no assistance in which only 19 percent of children attended.⁴⁵

The second major direction of reform could be innovating with new models of ECE delivery involve greater co-responsibility of the state, communities, and households. This can be both effective in terms of impacts and cost-effective, drawing on good international experience and emerging Chinese pilots.⁴⁶ Expansion of ECDE services could involve a range of models, guided by the notion of “welfare pluralism,” in which public subsidies need not only be to formal pre-schools, but could also support community and parent provision (e.g., through carer allowances). Given the high cost of center-based ECDE services such as parent-child classes and formal kindergartens, local governments are unlikely to have sufficient revenue to fund center-based ECE services in rural areas for the 3–6 year age group. The financial constraints of local government limit supply, and parental inability to pay dampens demand.

Chinese pilots and international experience also offer many lessons for innovation in models of formal center-based ECE delivery. Even in formal settings, there is significant potential for greater efficiency and innovation. Reducing the length of shifts could accommodate more children in two shifts in the same facilities, perhaps even taught by the same teachers. A review of international literature found that most children had cognitive gains by participating in center-based ECD programs for 15–30 hours a week during at least nine months of the year, and children from lower-income families benefit even more. Different models of formal provision are also possible and are already being tried in China, e.g. the use of mobile kindergartens in remote rural areas. Piloting, evaluating, and gradually expanding different models of ECE suited to local fiscal and other conditions would be an agenda for the 12th Plan period.

B. Promoting Equality of Quality and Access across the Education Cycle

A key driver of China’s sustained growth and economic transformation into a high-income country will be developing a workforce with the competencies needed for a more complex and dynamic economy. A key distinction between countries that have successfully made the middle- to high-income transition and those that have stalled is the level, quality, and equity of investment in human capital. At the same point in their development paths, Japan and South Korea were sending almost all students to high school. In contrast, countries that have stalled at middle-income status—such as Argentina, Iraq, Mexico, and Egypt—are distinguished by low levels of human capital relative to their income levels.⁴⁷

To promote and accelerate the human capital transition, reform efforts are needed in three directions in compulsory education and at the post-compulsory education level. The first is to reduce the remaining disparities in quality across space and across different groups of children in their access to quality compulsory education. The second is to move toward free senior secondary education, with sufficient public resources to ensure access and quality for rural,

⁴⁴ See Fiszbein and Schady (2009) for a review of developing country experience.

⁴⁵ See Rozelle (2011). See also CDRF pilots on ECDE in Qinghai.

⁴⁶ See for example World Bank (2011) which summarizes a range of ECE innovations in Latin America. See also Vegas and Santibañez (2010) for details.

⁴⁷ OECD, 2007; Zhang & Zhang, 2008 regarding Asian countries; Miguez (2006) regarding Argentina and Hanson (2010) regarding Mexico.

poor, and migrant young people. The third direction is reforms to TVET and higher education which promote a set of competencies that will continue to be in demand from employers as the economy evolves. Many elements of the vision for China's education system in 2030 are already visible in the National Plan for Medium and Long Term Education and Development, including promoting equality of access at all levels of the system, enhancing educational quality, and promoting innovation and greater diversity in the education system.

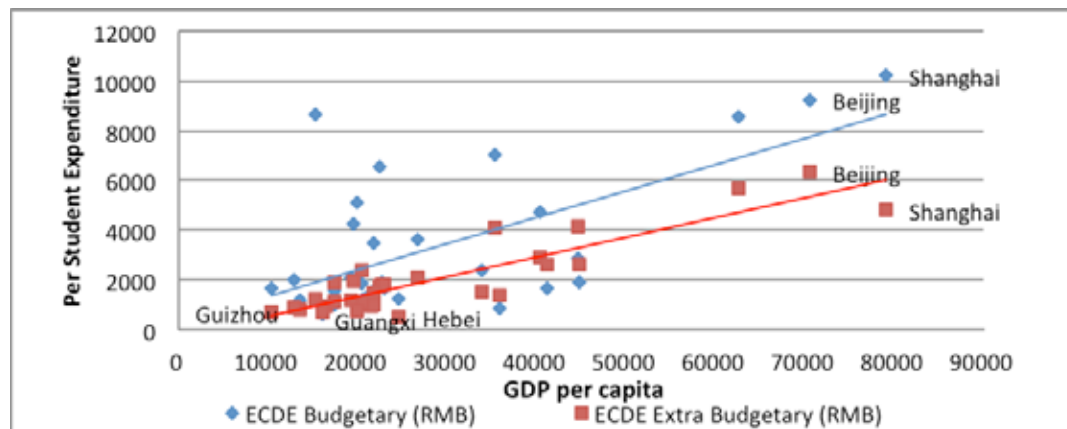
(1) Promoting equality of quality in compulsory education

(a) Current challenges

Promoting greater equality in compulsory education is a major priority from both social and economic perspectives and in terms of maximizing China's human capital base. China has made great progress towards its goal of universal completion of primary and junior secondary schooling. Despite this, challenges remain in completion of the full cycle in poorer areas and for certain groups such as migrant children, with around 9 percent of students nationally still not completing the full compulsory cycle in 2009 and higher shares in poorer provinces.⁴⁸

The key challenge in basic education is “equality of quality” for children in different areas, social categories and income groups. Disparities in quality of basic education remain substantial, and in some dimensions may have increased in recent years. In terms of public spending on education, the differences in per capita allocations across provinces (and often within provinces and prefectures) increased between 2000 and 2009, despite rising spending across the board and despite significant central subsidies to rural education as a result of the fee-free rural education reform (Figure 3.9).

FIGURE 3.9 Spending per capita on education by province, 2000 and 2009



Source: China Statistical Yearbooks, in Brixi et al (2010). Diamonds (blue) = 2000; squares (red) = 2008.

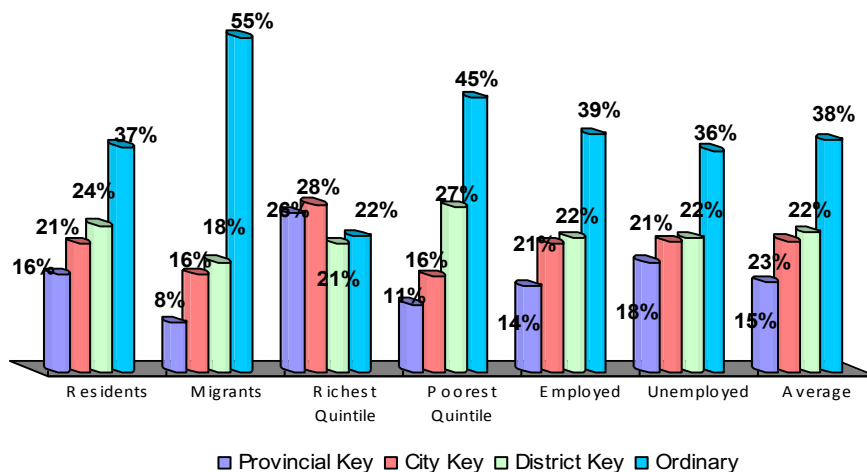
The equality of quality agenda is relevant to rural and urban areas but in distinct ways. In rural areas, significant challenges include the recruitment, compensation, and retention of quality teachers and gaps in the quality of educational infrastructure and learning inputs.⁴⁹ Poor households also continue to experience difficulties in shouldering the non-fee costs of education, especially in the face of rising opportunity costs as real wages have risen. In urban areas, disparities are evident in the differential enrollment rates in higher quality “key” schools and regular schools among local, migrant, and poorer children and in indicators such as average

⁴⁸National Plan for Medium and Long Term Education Reform and Development (2010–2020).

⁴⁹See Wu, Boscardin and Goldschmidt (2011), background paper for this report. See also National Inspectorate sample survey of teachers 2007, which found major challenges in retention of rural teachers—particularly key teachers—and high incidence of substitute teachers in western and central provinces.

class size and transition rates (Figure 3.10). The increased importance of family connections and “selection fees” to get children into elite urban public schools reinforces existing social disparities. Better-quality urban schools benefit from increased revenues from the school-selection fee, further setting them apart from ordinary schools. Despite national policies, significant challenges also remain in ensuring free access to schooling for migrant children in urban areas. In Guangdong province, for example, 55 percent of migrant children from within the province and 79 percent of migrant children from outside the province enrolled in private schools (compared to only 13 percent of local urban residents) in 2009.⁵⁰

FIGURE 3.10 Type of Urban Schools Attended by Various Subgroups in 5 Chinese Cities, 2005



Source: Wang and Wu, 2008.

Although the authorities have been trying to address quality differentials in compulsory education, fiscal and other constraints make the task challenging. The removal of fees in junior secondary school has been an important reform in recent years and has had clear benefits in terms of funding levels and the retention rates of poor students.⁵¹ The authorities have initiated free tertiary education to incentivize teachers to move to western areas and are promoting rotation of urban teachers, but the scale and consistency of approach varies.

(b) Looking ahead

Addressing “equality of quality” in compulsory education will require deepening reforms on several fronts, including:

- *Further financing inputs from governments above the county and district levels will be needed* to avoid further widening of disparities in educational quality across provinces and within them. This is particularly the case for rural schools, where aggregate funding shortfalls and disparities remain an issue in achieving quality. This is part of a wider inter-governmental system reform agenda discussed in the Economic Restructuring report. The experience of cities such as Dalian and Chengdu in equalizing financial and other resources across districts and integrating poor and migrant children provide models, but such equalization efforts will eventually need to go beyond the prefecture. The experiences of countries such as Korea and Japan also offer insights into the potential for more proactive policies to promote equalization of access to good quality schooling.

⁵⁰ Guangdong Migrant Children Education Survey (2009) in World Bank (2010).

⁵¹ See World Bank (2008) and CIEFR (2008).

- *A key focus will continue to be teachers*—teacher recruitment and career progression/promotion, allocation, compensation and incentive policies. This will require a combination of measures, including institutionalizing a rotation mechanism to ensure that quality teachers spend time in disadvantaged schools;⁵² twinning arrangements between stronger and weaker schools; strengthening in-service training; incentives for hardship postings; and more fundamental examination of teacher compensation. China is experimenting with a number of such measures, including introducing a degree of performance pay for teachers.
- In urban areas, a key question is how to *reinvigorate the concept of a neighborhood school* which has been substantially undermined by the practice of selection fees and the growing importance of personal contacts in accessing the best schools. The issue of how to integrate migrant children into a stronger neighborhood school system is one that will require both policy reform but also close focus on their educational needs. The experience of Japan and South Korea suggests however significant equalizing impact of a strong neighborhood school system but also that such an approach does not appear to have compromised overall quality, given the consistently strong results in international tests.

(2) Achieving Full Senior Secondary Enrollment

(a) Current challenges

While China has made great progress in expanding access to post-basic education, getting rural children into senior secondary academic high schools remains a major challenge. As shown in Figure 3.11, official data on the rate of graduation into the senior secondary academic stream among rural children remained almost stagnant from 1990–2006, increasing from 7 to only 9 percent. Getting the full picture for rural children is difficult though, as many go to high school in urban areas. Taking this into account gives an estimated junior-to-senior secondary academic promotion rate of 20–30 percent for rural children.⁵³ In contrast, urban rates rose rapidly during this period, from around 40 to around 70 percent. While a significant share of rural children go on to senior secondary *vocational* institutions, this section focuses on barriers to accessing senior secondary *academic* schools due to concerns about poor basic school training in TVET education.⁵⁴

There are several drivers of low rural progression to senior secondary academic schools: the entrance test, the high costs of secondary education, the perceived low quality relative to cost, and the rising opportunity costs. Many rural students simply fail the entrance exam to senior secondary academic school (*zhongkao*), with evidence even from rich provinces like Guangdong suggesting that less than half of rural junior high graduates pass the exam.⁵⁵ In addition, there is evidence of students passing the exam but choosing not to enroll in senior academic school for quality or opportunity cost reasons.⁵⁶

However, it appears that high cost and rising opportunity costs are the main drivers of low rural graduation into senior academic high schools. Figure 3.12 compares average tuition fees for senior secondary school (or general high school where relevant) in a range of countries relative to rural China (the latter based on evidence from rural Shaanxi as a representative poorer province). Even relative to countries at much lower levels of income, China is a major outlier. The situation is more pronounced when comparing the fees as a share of household income: in Mexico, three years' worth of school fees amounts to only around 4 percent of per capita income, while in the China example, fees for the three-year cycle would have cost 82 percent

⁵² Some researchers have suggested that shifting the employment status of teachers to that of civil servants would be one way to facilitate a teacher allocation and transfer system which promotes greater equalization of quality. See Wang and Gong (2011).

⁵³ See Rozelle (2011) for the basis of this estimation.

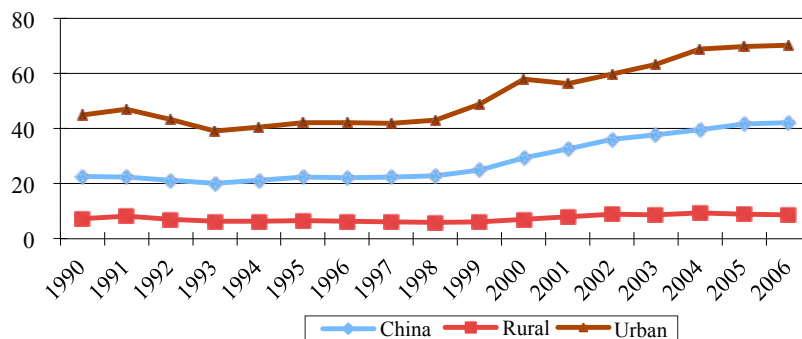
⁵⁴ Wan (2007); Xing (2001); Xinhuanet (2009) on concerns about academic skills in vocational schools.

⁵⁵ Chen and Liang (2008).

⁵⁶ He (2009) and Li (2006).

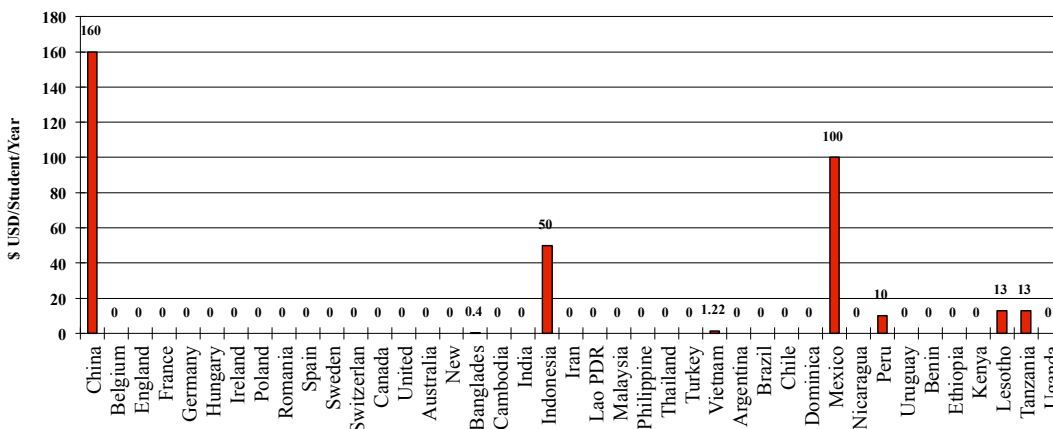
of net per capita income of a rural household at the time.⁵⁷ When the costs of room and board in senior high school are added, this may be more than double the tuition level. All of these are only direct costs which do not take into account the rising opportunity costs of being out of the labor force as the real wages of unskilled workers have increased substantially in recent years.

FIGURE 3.11 Official promotion rates from junior high school to academic high school, urban/rural, 1990–2006



Source: Rozelle et al, calculated from China Statistical Yearbook (various years).
 Note: Rural promotion rate includes only rural child promoting in rural areas.

FIGURE 3.12 Annual tuition per student in public high schools/senior secondary high, late 2000s



Source: Rozelle (2011), using Global Tuition Survey and Shaanxi High School Student Survey.

The Government is aiming to provide financial aid to 20 percent of students in poor rural areas, but the level of aid relative to full direct costs remains low (leaving aside opportunity costs). The Government’s efforts are clearly a step in the right direction. However, survey-based estimates from Shaanxi province in 2008 found that financial aid covered only around 6 percent of the total direct costs (tuition plus board) of senior secondary school.⁵⁸ The major policy questions for the authorities are: (i) should compulsory education cycle be extended to the end of senior secondary level? and (ii) if so, should senior secondary education be free for all students, or should a targeted approach to financial aid be taken, and what should be the coverage in terms of groups/shares of total students and the degree of financial support provided?

⁵⁷ See World Bank (2008) on Mexico and Rozelle, op.cit.

⁵⁸ Rozelle (2011).

(b) Looking ahead

Given the needs of the Chinese economy and the experience of countries that have moved from middle- to higher-income status, extending free education to include the senior secondary level seems inevitable in the coming decade. For China to continue deepening its human capital base, getting all students to finish senior secondary school is a necessity in the coming decades. China has already set a 90 percent senior secondary enrollment target (with half in the academic stream and half in the vocational stream) by 2020 in its National Plan Outline for Medium and Long-term Education Reform and Development. The 2020 quantitative target is comparable to Korea's senior high enrollment rate in 2000. However, the strategy on financing of senior secondary school remains to be developed, beyond the (appropriate) priority given to central and western provinces.⁵⁹

Given the rising opportunity costs of senior high school, the Government may need to consider a bolder financial commitment to achieving its 2020 target and the adoption of an even higher coverage target for 2030. Following the example of the rural fee abolition in the past decade, it would be advisable to institute a similar policy for senior secondary schools in rural areas and to consider a parallel initiative for poor and migrant children in urban areas. A substantial injection of public funds would be required, with the bulk needing to be financed by the central and provincial levels. This could be financed in part by the incremental public funding China has already committed to in its Education Law, with an increase from around 3.5 to a target of 4 percent of GDP to be spent on education. However, if such an initiative is to be combined with increased funding for rural, migrant, and poor children for ECE, and if the planned continued expansion of higher education is to be achieved, public spending will most likely have to be increased beyond the 4 percent target. Fiscal constraints are likely to force prioritization of educational reforms by the authorities, with a sequenced approach.

(3) Developing Competencies for the 21st century

(a) Current challenges

China has made great progress in expanding access to post-basic education in recent years. From higher education coverage of only around 3 percent in the early 1980s, over 24 percent of the cohort was enrolled in higher education by 2009, including higher vocational education. Similarly, there has been a major expansion of technical and vocational training at the senior secondary level, supported in part by major investments in student stipend schemes.

However, in both the technical and academic streams, quality and labor market relevance need to be strengthened to enable China to achieve sustained productivity growth. The greater openness and rapid technological adoption of the Chinese economy has created a demand for higher-skilled workers with more diverse competencies, posing an ongoing challenge to China's education and training systems. Employer surveys identify significant skills gaps in both higher education and TVET graduates. For example, a 2005 McKinsey report concluded that only 10 percent of the engineer graduates had the appropriate attributes for working in multinational corporations.⁶⁰ The key shortcomings were the "soft skills" such as practical and language (English) communication skills, innovative capacity, professional qualifications, and entrepreneurial capacity. Similarly, skills shortages were identified as a serious obstacle by over 30 percent of Chinese firms by Investment Climate Surveys, with a further 30 percent identifying them as significant.⁶¹

The TVET system faces several challenges in enhancing quality and the labor market prospects of students and their contribution to productivity growth:

⁵⁹The Plan says, "More assistance shall be granted to senior middle school education in impoverished areas in central and western regions."

⁶⁰McKinsey Quarterly (2005).

⁶¹Almeida (2009).

- The TVET system is fragmented, with uncoordinated provision across a range of public sector agencies and a growing private sector. The bulk of colleges are split between the Ministries of Education (MOE) and Human Resources and Social Security (MOHRSS) and their local branches, but many other line agencies are also operating significant sub-systems. Governance is also decentralized within each of the sub-systems.
- Consistent with the diverse governance arrangements, the system of qualifications and competency certification is also fragmented, making it difficult to provide consistent standards on which employers throughout the country can rely for a consistent picture of the skills and competencies of TVET graduates.
- Financing of TVET faces several challenges, including the degree of decentralization and issues of vertical and horizontal equity, an uneven playing field in the allocation of public funding between public and private training providers, and a strong emphasis on inputs and the supply side of the system.
- The system lacks a framework for licensing and accreditation of non-public training providers, which both limits the growth of the private sector and results in lack of quality assurance and consumer protection for those undertaking private training.
- Systematic mechanisms for involving employers in the development of training curricula are lacking. While there is often a healthy transactional interaction between training schools and employers (e.g. through “pre-ordering” graduates by employers), the channels for involving employers in shaping course content remain largely *ad hoc*.

Apart from the above institutional and policy issues, the role and nature of TVET in China needs to be considered. Overall, the shares of students in TVET versus academic streams varies considerably, from around one quarter in Japan in TVET to 80 percent in parts of central Europe, around an average of 50 percent across the OECD (around China’s current share at the senior secondary level). The bigger issue is what types of competencies are being acquired in TVET programs and to what extent they provide options for students for further study as well as labor market entry. The answers to these questions are crucial in assessing whether China’s TVET system is well prepared for the faster pace of economic and labor market change and the types of skills needed by workers over coming decades.

Currently, TVET in China tends to be a “dead end”, with no pathway to further academic education for the large majority of students. In contrast, the expanding practice in OECD countries is to allow for TVET students to stream into further academic education. This can be seen in reforms in countries in Latin America and the Caribbean, the community college system in the United States, Nordic and apprenticeship countries such as Germany, and reforms over the past decade in Korea which allow for crossover of technical students into academic streams. Some countries such as Norway and Austria have double qualifying pathways.⁶² Given that the large majority of students in TVET are from rural, migrant, or otherwise disadvantaged or “blue collar” backgrounds, the structural segmentation of the TVET and academic streams also contributes to social segmentation.

Similarly, the Chinese TVET curriculum does not place a strong emphasis on continued acquisition of general “core” and academic skills. While this may be an appealing short-term strategy in terms of preparing workers for immediate placement (as evidenced by the pre-ordering system between enterprises and TVET colleges), it raises questions of how well-prepared the TVET students will be for the medium- to long-term labor market, since specific skill demands will continue to shift. TVET reforms in OECD countries since the 1990s increasingly recognize this risk by blending vocational and academic curricula, with technical students receiving more academic content while academic stream students are taught greater practical application of their knowledge. Korea is a good example, with as much as 75 percent of curriculum being common between TVET and academic streams in senior secondary schooling.⁶³ This is consis-

⁶² Adams (2007).

⁶³ UNESCO (2005) and Van Adams, *op. cit.*

tent with a wider trend to deferring the introduction of vocational subjects in OECD education systems. They are also placing increased emphasis on core general skills such as communication, problem solving, and teamwork.

(b) Looking ahead

To help China ensure a sustained stream of appropriately skilled workers as it moves up the value chain, curriculum reform in TVET education should balance the continued acquisition of general “core” skills with technical skills. This will require a significant shift in the approach to TVET education as well as greater emphasis on the practical application of knowledge in tertiary academic education. Countries such as Finland and Korea provide a rich body of experience from which to draw as China develops such incremental reforms, including reforms such as dual academic/technical qualifications and allowing for transfer from the TVET system into academic streams with credit for prior learning.

The fundamental trade-off in TVET reform is between immediate employability and adaptability of skills across the life cycle as the economy changes rapidly. Global evidence indicates that indeed youth employment rates for those with TVET education are higher than those with academic education at the initial point of transition from education to work. However, that advantage decreases with age as the narrow technical skills that initially helped in getting work become outdated and the absence of more general competencies for adapting and life-long learning become a constraint.⁶⁴ And the deterioration in TVET labor market benefits was found to be faster in countries experiencing more rapid technological change. The trade-off between short term employability from TVET and China’s long run desire for a labor force with high but flexible skill sets as it strives for high income status will become increasingly important in coming years.

In addition to reorienting the content of TVET education, structural reforms are needed to make TVET more responsive to employer demand and more accountable for quality. These include governance reforms to streamline and consolidate overall sectoral policy setting and oversight. One option to address the current fragmented governance of the TVET sector is the establishment of a national (or provincial) training authority. Examples of national training authorities include the UK, Australia, New Zealand, Brazil, Philippines, and South Africa. While models vary, governments hold primary responsibility for policy development and take the lead in promoting the orderly operation of training markets through regulation and institutional development and ensuring equitable access to these markets. Rather than relying solely on public provision, new models of competition have emerged. Employers, worker organizations, and civil society are participating in policy development as stakeholders and assuming larger roles in provision and financing of training. Establishing effective NTAs is not straightforward, but experimentation in advanced provinces in the medium term could build experience for wider institutional reform in the long term.

The TVET system can benefit enormously from an expanded role for non-state sector provision to help meet demand, service niche skill sectors, and provide a healthy dose of competition. To help encourage greater plurality in TVET provision, the financing system for TVET would need to allow for public financing of non-state provision of training, within a solid regulatory framework to ensure that non-state providers meet quality standards. This could in principle be done both on the supply side (by allowing for public financing of accredited non-state training institutions) and/or on the demand side (by using public funds to provide vouchers to students who would freely choose among public and non-state institutions). Local-level experiments with training vouchers in China (e.g., Meizhou in Guangdong; Jiangsu province) can provide lessons for potential demand-side interventions. Licensing and accreditation for non-state providers is a seriously under-developed area in China and would benefit from lessons

⁶⁴Hanushek, Woessmann and Zhang (2011) using data from 18 countries from the International Adult Literacy Survey.

of experience in countries with well-developed training markets. For example, in Chile, the *Servicio Nacional de Capacitacion y Empleo* (SENCE), a specialized agency of the Ministry of Labor, maintains no in-house capacity for provision of training and procures training services from public and private providers.⁶⁵

In the long run, adoption of a common standard for assessing the competencies of all students would promote greater integration across the education system. A National Qualifications Framework (NQF) could play an important role in this regard. Country-level frameworks linking existing qualifications of different levels and types of education in a coherent and consistent way based on a common set of criteria have proven to be valuable in a number of countries, including Russia, Netherlands, the UK, Ireland, and Australia. The EU has also established a voluntary European Qualifications Framework to promote mutual recognition of educational and skills qualifications.⁶⁶ The potential benefits of such a system in China, with its diversity of institutional sub-systems of education and training (both geographically and across line agencies within the training system), are substantial. Given the challenges of coordination and agreement on common standards and implementation arrangements, an NQF is a long-term process. Nonetheless, it is a goal worth pursuing, as it can contribute to needed improvements in educational quality and labor market relevance.

C. Achieving a Healthy and Productive Population Sustainably

Deepening health reform is one of China's biggest social challenges in the coming years. At the same time, Chinese and international experience demonstrates that health sector reform is one of the most complex and politically challenging reforms that governments confront. This challenge is exacerbated in China the explosion of non-communicable diseases (NCD, see Chapter 1), which requires a fundamental realignment of the health delivery system away from the current hospital-centric model to one which manages care across levels of the system with primary care providers playing the key role in care coordination.

While transforming the health system will be challenging, if greater equalization, and a more responsive and accountable system can be achieved, international evidence points to the health, equity and productivity dividends.⁶⁷ China's Health System Reform initiated in 2009 recognizes many of these challenges. This section discusses three key elements of health reforms: reorienting the delivery system to a greater emphasis on primary and preventive care; reforming health financing and incentive systems; and deepening reforms of the hospital system.

(1) Current status and challenges in China's health system

In the past decade, China has sharply increased public expenditure on health care and undertaken a range of reforms in financing and delivery of health services. China has achieved expansion of its health insurance (HI) system at a speed that has few precedents globally. From coverage of only around 20 percent of the rural population in 2003, rural health insurance coverage was around 95 percent by the end of the decade, and urban residents outside formal sector HI schemes have also been brought within the umbrella of insurance. Coverage of services and reimbursement rates has also been expanded gradually, and major investments have been made in health infrastructure. The expansion of health insurance has been complemented by ongoing structural reforms, most recently through the 2009 Health Systems Reform (HSR).

However, despite increased spending, the health sector remains inefficient and fragmented, is misaligned with the burden of disease, and provides inadequate and unequal financial protection for the population. A key aspect of the changing context is the dominance of NCDs,

⁶⁵ Johanson and Adams 2004; Cinterfor/ILO 2001.

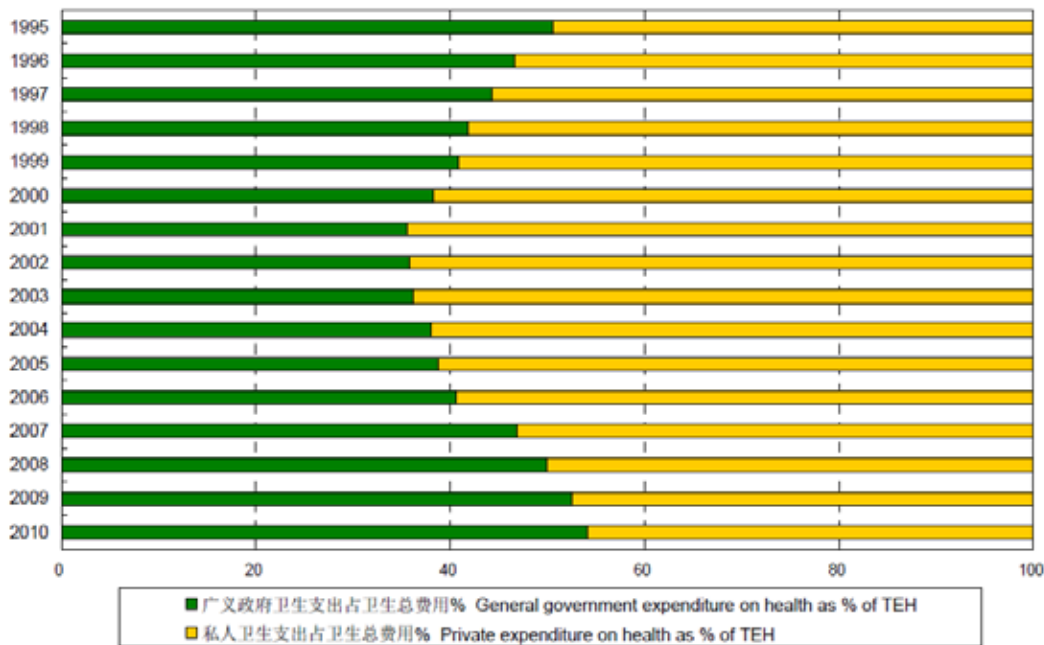
⁶⁶ See European Training Foundation, various publications.

⁶⁷ Commission on Growth and Development, Spence and Lewis (eds), (2009).

which require a different policies and delivery system mix. The key issues and challenges for China's health sector include:

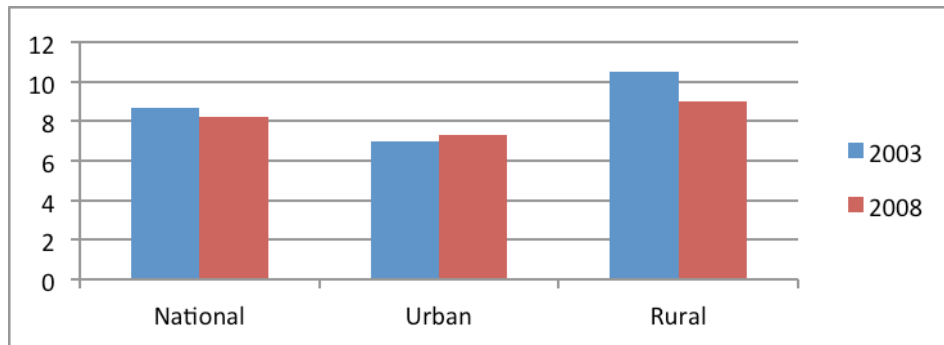
- *Financial protection for households remains inadequate.* Although the share of out-of-pocket spending in total health expenditure has fallen in recent years to reach just under half (Figure 3.13), health costs as a share of household income remain high. Despite the massive expansion of NCMS and urban residents' schemes in the 2000s, household health spending fell only marginally from 8.7 to 8.2 percent of average household income between 2003 and 2008, and actually rose slightly in urban areas (Figure 3.14). Partial financial protection is driven by a combination of actual reimbursement rates (e.g. 40–50 percent in nearly all provinces in NCMS); annual caps on coverage which expose households to major financial risk from serious illnesses; and variable inclusion of services within HI packages. Just as importantly, there is growing evidence of provider over-servicing and health price inflation.

FIGURE 3.13 Out-of-pocket and government health spending as share of total health spending, 1997–2010



Source: China Health Total Expenditures Statistics 2011, China Health Economics Institute.

- *Financing is highly fragmented and unequal,* with risks pools fragmented across HI schemes and across space. In most provinces, schemes are struggling to raise the pooling level beyond the prefecture level. As a result, the coverage of services and extent of patient reimbursement remains variable across space and across social groups, depending on which HI scheme they are in. In the case of primary care, funding sources are even more varied, including earmarked vertical program budgets, health insurance, central and local budgets, and user fees.

FIGURE 3.14 Household health spending as % of total household income, 2003 and 2008

Source: Third and fourth National Health Surveys, MOH.

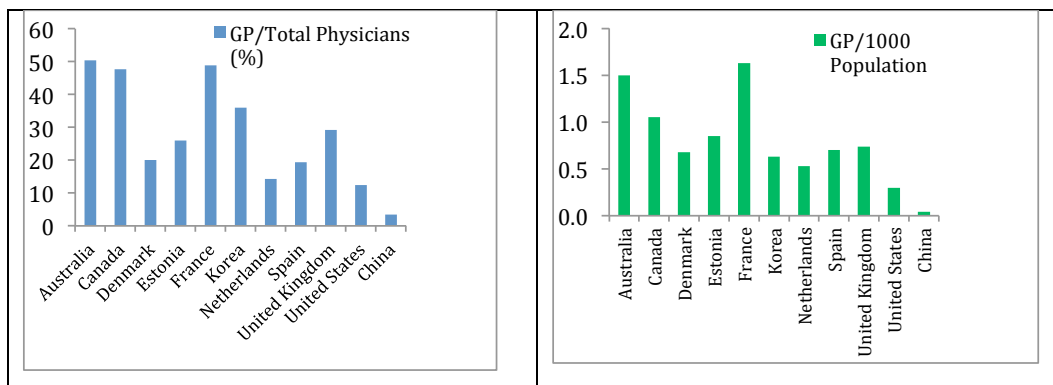
- Financing and payment arrangements give weak incentives to health care providers for efficiency and to deliver core primary care services.* For all levels of care, the dominance of fee-for-service provider payment systems and emphasis on self-financing of facilities has encouraged over-servicing and lack of emphasis on efficiency. As a result, unnecessary hospital admissions account for 30–50 percent of total, and average hospital lengths of stay are double the OECD average. In addition, the insurance-based financing model has for most people been biased toward inpatient care, until recently excluding outpatient care. The National Health Services Survey shows that in 2008, 33 percent of patients received reimbursement for outpatient care, compared to 85 percent who received reimbursement for inpatient care. There has been significant expansion of outpatient coverage within health insurance schemes since then, but the process remains incomplete. This includes lack of insurance coverage of preventive services which are particularly vital in early stage management of NCDs. There is also a strong hospital bias in Chinese health spending relative to OECD countries (with around 53 percent of total public health spending on hospitals in 2010, and only 6.3 percent on THC_s in 2010).⁶⁸ Second, the distorted price schedule and fee-for-service provider payment mechanisms have given health care providers strong incentives to generate demand for profitable high-technology services and drugs, rather than for basic services, particularly for the poor. Third, the capital funding model for public hospitals—with strong reliance on bank lending and “project cooperation” whereby third party capital investors take an effective role in the management and even ownership—has reinforced incentives for profit-maximization in public hospitals, led to unclear ownership and control of public facilities at times, and contributed to irregular practices.⁶⁹
- The three tier delivery system operates in a fragmented manner, resulting in poor coordination of care and case management across the public delivery network.* At present, there is very limited cross-referral across the three tiers of health facilities to ensure that health conditions are managed at the most appropriate and cost-effective level. Patients tend to go directly to hospitals even for outpatient care (around 53 percent of patients have their first contact with the system at a hospital), and there is no gatekeeping by lower levels. This “dis-integrated” behavior is driven by provider incentives which promote profit maximization rather than appropriateness of care. This breakdown in the coordination of the three tier system means that China is not well prepared for the more complex case management needs that NCDs demand. There are pilots to build relations and harmonized incentives between hospitals and lower level providers (e.g. Shenzhen and Wuhan), but these remain in their infancy.

⁶⁸ China National Health Development Research Centre (2011).

⁶⁹ Liang (2007).

- *There remains a limited role for HI agencies and the budgetary authorities in promoting cost effectiveness and quality of services.* To date, despite major increases in HI financing of health services, HI agencies remain largely passive financiers of services. As such they do not effectively hold providers accountable for quality and cost-effectiveness. Similarly, budget subsidies are to date not used to contract for outputs and reward performance.
- *There are major challenges in building the human resources for the emerging system.* A particular challenge is building a reasonable size and decent quality primary care provider cohort. In 2010, China had only 60,000 general practitioners, comprising around 3.5 percent of licensed physicians in 2010—a very low ratio compared OECD countries. Notably, the OECD country with the highest health costs to GDP (the United States) also has the lowest GP ratios (Figure 3.15). The situation is exacerbated by assignment of responsibility to local level CDCs for essential public health services in-service training at THC and village levels without allocation of adequate resources to provide such training or monitoring of provider practices. At the higher levels of the system, there is also a significant shortage of qualified hospital managers.

FIGURE 3.15 Indicators on density of general practitioners 2007 (China 2010)



Source: OECD (2010); World Bank (2011) for China.

- *Trust in the health system and providers is low and social accountability remains limited.* At present, the hospital sector is considered to be one of the least-trusted public services by Chinese citizens.⁷⁰ Part of the concern is the perception of the need for informal payments to providers to receive faster service and/or better quality doctors.⁷¹ But more generally, there are concerns of an “erosion of medical ethics”.⁷² While social accountability pilots in health are growing (see Section D), there is limited accountability of providers and health facilities to the population.
- *There is a potential for the non-state sector to contribute more to realizing the government’s objectives in the health sector.* While around 20 percent of hospitals are private, in 2008 they accounted for only around 5 percent of total inpatient and outpatient services. The situation is reinforced by public insurance systems that have to date provided an unlevel playing field between public and private health providers.

⁷⁰ See Wang et al, Book of Social Mentality (2011).

⁷¹ Evidence from 2001 in China found that 74 percent of patients reported making informal payments. See Bloom et al (2001).

⁷² Yip, Hsiao, Meng, Chen and Sun (2010).

(2) Reforms to promote a healthy and productive population

Many of the challenges of health reform are outlined in the 2009 Health Systems Reform (HSR), but questions remain on how much progress can be made in the absence of more fundamental realignment of the incentives in the health system.⁷³ The five areas of HSR recognize the need to reorient care to greater reliance on primary and preventive services, contain costs, and reform financing and hospitals, but an overarching concern is whether the reforms will be sufficient to achieve the fundamental shift away from an inefficient and hospital-centric model of care to one which is more suited to the demands of an NCD-dominated disease profile and is built around a primary care system which helps coordinate care across levels of the delivery system. This section discusses the reforms which might be considered to achieve this, some of them extensions of existing reform initiatives.

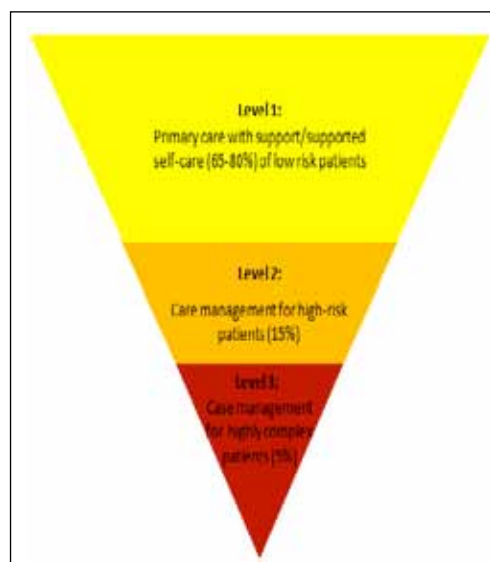
(a) Primary care reform—moving from disease treatment to a healthy population⁷⁴

The Chinese authorities have emphasized PHC reform in the ongoing health systems reform, but such reform is a generational change which is likely to encounter significant obstacles. A modernized PHC system requires a set of measures over 10–20 years which has to be comprehensive and phased, including new delivery models, a new generation of primary care health professionals, financial and non-financial incentives, and a realistic transition plan (see Figure 3.16). The different elements of PHC reform are linked, and it is critical to move on all the major elements in tandem. In addition, PHC reform cannot succeed in isolation from reforms of other levels of the health system. An effective PHC system must be part of a broader model of “coordinated care” which ensures that patients are treated and their condition managed at the right level of the system to contain costs and improve quality.

International evidence shows that an NCD-dominated disease profile requires more complex case management and coordination of care, and primary care level plays a critical role in the process. As shown in Figure 3.16, a majority (65–80 percent) of NCD patients need low-level care since their conditions are reasonably controlled with self-management. This care can and should be provided by a strong PHC system. About five percent of NCD patients require complex case management delivered by specialized or hospital-based care. Between these groups are higher-risk patients who need less complex care management from specialists. Primary care plays the key role in managing care across these three groups. In addition, evidence from developing countries shows that expenditure on PHC is more pro-poor than expenditure on hospitals.

Based on Chinese and global experience, the key steps of PHC reform—summarized in Figure 3.17—include:

FIGURE 3.16 “Pyramid of Care” Model



Source: adapted from US Department of Health, 2005.

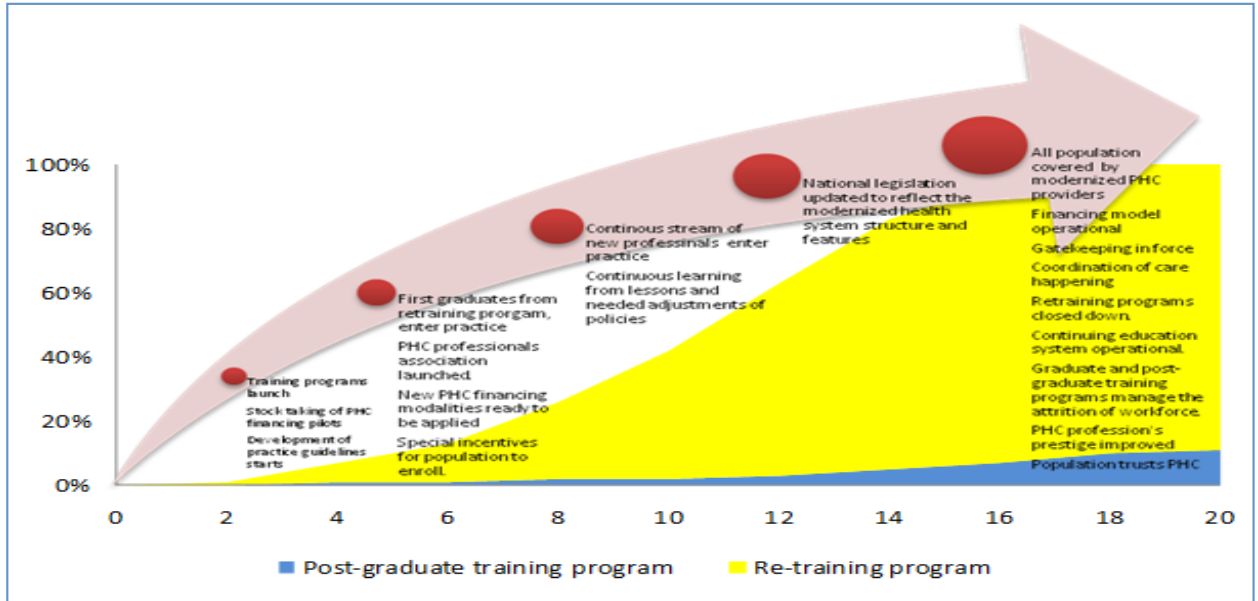
In the short term:

- As a starting point, reaching consensus about the policy direction and key components of reform. This would outline the key dimensions of PHC reform and include decisions about professional competencies, organizational forms for PHC providers, financing mechanisms

⁷³ Opinions of the CPC Central Committee and the State Council on Deepening the Health Care System Reform, 2009.

⁷⁴ The background paper for this section is Palu (2011).

FIGURE 3.17 Roadmap for PHC modernization



Source: Palu (2011).

and sources, responsibilities between levels of government, and so on. The HSR provides a starting point, but would benefit from a more comprehensive approach.

- **Experimenting with new institutional arrangements for new PHC providers, learning from Chinese pilots and international experience.** The PHC system remains fragmented in institutional terms with a host of often uncoordinated actors, including family planning agencies, maternal child health (MCH) programs, township health centers (THC) for primary and secondary care, village doctors, public health agencies, and others. In rural settings, township health centers with linkages to village clinics are the natural unit to be strengthened and/or restructured to provide integrated primary care. A key question is to what extent THCs should retain an ambition to provide inpatient care. One possibility could be to convert THCs into ambulatory care centers, with family practitioners providing technical oversight of village doctors. The urban solution would be built around urban community care centers. Emerging experiences in Shanghai and Beijing indicate that they are able to fulfill primary care provision tasks when equipped with a new set of competencies and provided with professional support. Shanghai and Ningbo have also provided promising examples of a functional family doctor model for the past several years. Integrated care centers that include PHC providers but other professions (ambulatory specialists, social workers, geriatricians) should also be piloted.

In the medium to long term:

- Equipping a new generation of providers with new skills, a process that will take a generation to complete. To achieve this goal by 2030, significant changes to medical education are needed.⁷⁵ OECD standards imply that China will need about 600,000 general practitioners and perhaps twice as many middle-level health professionals, but only a small number of universities in China currently provide medical doctor training comparable to the eight-year Western medical training. Transitional arrangements will need to be put in place, balanc-

⁷⁵The Global Independent Commission for Education of Health Professionals provides best-practice guidance on training of primary care professionals.

ing retraining the existing stock of providers (temporary programs) and establishment of new streams of training (permanent). The experience of former socialist countries in ECA provides lessons in this regard.⁷⁶ An important element of the in-service training strategy would be reforming the funding mechanism and incentives for local CDCs to provide essential public health services training at the grassroots level.

- **Further reforming the resource allocation model supporting PHC development.** International experience suggests that this could be allocated per capita, risk adjusted for gender, age, and mortality, possibly also including socio-economic parameters (poverty, remoteness). High- and middle-income countries provide examples of models of varying complexity: for example, the UK has used complex need-based resource allocation formulas for its health service, while Thailand uses a simple non-weighted per capita allocation method for its universal health insurance scheme. A key step, which China has been piloting since 2005, is to separate incomes of primary care providers from revenues to incentivize cost-effective and quality primary care.⁷⁷
- **Adopting financing methods that provide appropriate performance incentives for PHC providers and incentivize higher PHC usage.** The emerging best practice of financing PHC services globally is a mix of methods, comprising fixed practice allowance, variable capitation, and special incentives which can help maximize benefits while reducing costs to patients and the health system. Pilots are being designed in China along these lines. In the primary care provider payment reform pilots in Shandong and Ningxia, the THC is treated financially as a vertically integrated organization with village clinics.

Over time, moving to a system of coordinated care across the three tiers of the health delivery system. This will require not only better quality PHC providers, but also strengthening coordination of care between primary and higher levels of the system and aligning the financial incentives of providers and patients toward PHC. This process can benefit from global lessons (Box 3.1) and from China's pilots on care coordination.⁷⁸ Given the rising need for coordination of care to manage an NCD-dominated health profile, more integrated care models seem appropriate. Such reforms can be a driver for wider reform of the health delivery system if well structured.

(b) Deepening hospital reforms:

It will be difficult to achieve the necessary reorientation to primary and preventive care and to promote a model of coordinated care in China without further progress on hospital reform. Fundamentally, it will be necessary to change the current incentives for public hospitals and doctors to behave like private profit-maximizing providers. More specifically, reforms could include:⁷⁹

In the short term:

- **The key reform to be initiated in the short term is setting firm budget constraints on public hospitals.** A key factor in changing this relationship will be exerting greater influence over hospitals through more active roles for health insurance agencies as purchasers of health services which promote quality and cost effectiveness. Historically, health insurance agencies in China have had weak emphasis on service quality indicators and use of information to monitor and incentivize better provider performance. Moving from simply "paying the

⁷⁶World Bank. Review of Experience of Family Medicine in Europe and Central Asia (2005).

⁷⁷Yip et al (2010).

⁷⁸See Hofmarcher et al (2007) for a summary of OECD experience on coordinated care reforms, and Ma and Lu (2011) on Chinese pilots in cities such as Shenzhen and Wuhan.

⁷⁹See World Bank (2010), Fixing the Public Hospital System in China, for details. Also Yip et al (2010).

bill” to active purchasing will be key to promoting a system that puts patient care and cost effectiveness over revenue maximization of providers. China has a growing body of local experience with contracts that set wider quality standards and form a good basis for further strengthening this function over time. This is linked to wider reforms in provider payment systems (see below on financing and payment reforms). In addition, at present, with only around 10 percent of hospital revenues coming from public budgetary subsidies (and the rest from fees for medical services and drugs), the influence of budgetary agencies on hospital and provider behavior is weak.

BOX 3.1 Health Care Coordination in OECD Countries

Health care systems in OECD countries have evolved significantly in recent decades and offer lessons in terms of what to anticipate given an aging population, economic and medical progress, emergence of chronic diseases and public dissatisfaction with access to and responsiveness of health care. The growing prevalence of chronic disease has been a major driver of calls for coordinated care.

It is well established that people with chronic conditions are high users of health services and absorb a higher share of costs (Machenbach, 2005; Broemeling et al, 2005; Thorpe and Howard, 2006). Care models are emerging to address the needs of these groups to reduce costs for both patients and institutional payers, improve outcomes, and raise the quality of and satisfaction with care. Although models vary considerably, countries are consciously reducing their hospital capacity and moving toward a care model that places greater emphasis on primary care and coordination across care settings (OECD, 2009; Hofmarcher, Oxley and Rusticelli, 2007). Care coordination consists of a mix of measures that link professionals and organizations at all levels of the health system, emphasize patient-centered care integration, manage patient referral through the delivery system, and promote follow-up care as well as the continuity of long-term service provision. The concept is often based on the strong role of a primary care as the driver of coordination functions, including through gatekeeping (Saltman, Rico and Boerma, 2006).

Most coordination models target specific patient groups such as seniors or people with one or more chronic conditions. One approach is known as disease management. Disease management programs can consist of a number of components, including multi-disciplinary teams, provider education, provider feedback, information technologies such as electronic medical records (to share patient information), organized provider networks, patient reminder systems, use of evidence-based guidelines, financial incentives to providers, and the use of family physicians that coordinate treatment (Ofman, et al, 2004). A similar approach, sometimes referred to as case management, consists of assessing, planning, managing and monitoring of an individual’s social, prevention and treatment needs. This is performed by a “case manager,” who in principle works with providers across all levels to ensure cost-effective treatment. Other less common models involve the delivery of a comprehensive package of services to a defined population through integration of financing, professionals and facilities under a single organizational and managerial structure. Kaiser Permanente and the Mayo Clinic in the USA are examples of an integrated delivery system.

The impact of coordinated care models suggests potential for improving system performance, though evidence on some indicators is mixed. In a review of the literature, Hofmarcher, Oxley and Rusticelli (2007) found disease management programs appear to improve quality and outcomes. Although these programs may reduce hospitalizations, their impact on cost containment appears inconclusive. Evidence from large integrated delivery systems suggest that these organizations are able to follow care management processes (such as clinical pathways), reduce unnecessary hospitalizations and lengths of stay, and provide higher quality care at lower costs than other types of delivery arrangements (Weeks et al, 2010; Tollen, 2008). Finally, effective primary care systems have resulted in reductions in often unnecessary and costly hospitalizations in both high and middle income countries (OECD, 2010a; Macinko, et al, 2010; Bynum et al., 2011; Bitran, Escobar and Gassibe, 2010).

- **A second set of measures would be evaluating the experience in improving hospital governance and management.** Given the diversity in hospital organizational reforms across China, it is necessary in the short run to have more rigorous evaluation of different models and the lessons from them. The national pilots in 16 urban areas from 2009 are a useful laboratory in this regard. In addition, there are improvements in adoption of ICT/MIS in hospital and insurance management which can significantly improve efficiency of operations under any model of hospital organization. Moving from paper-based to electronic systems can facilitate adoption of tools such as cost accounting software and electronic medical records. The key in MIS expansion, however, will be the need for consistent data standards and protocols across health facilities, to reduce the current fragmentation of systems and promote coordinated care across levels. And to make any organizational change effective will require a new generation of hospital managers. Finally, following the co-responsibility direction of reforms, efforts to involve greater third party and community involvement in the management and oversight of hospitals could be accelerated in line with the growing numbers of pilots throughout China.

In the medium term:

- **A further of reform to be initiated in the medium term is to introduce greater competition for public hospitals from the non-state sector.** Government is looking to encourage greater entry of private providers, including international health care investors who can bring global best practice in facility management and quality assurance. This could be both new facilities, but also non-state operators under contract arrangements with public hospitals. There is significant potential to contract out management of public hospitals to non-profit organizations as done successfully in MICs such as Brazil and a number of HICs. To realize this goal, health financing and purchasing arrangements will benefit from proactive inclusion of non-state providers. This in turn will require development of the licensing and accreditation regime to ensure minimum quality standards.
- **A second area for attention in the medium to long term is the capital investment strategy for hospitals and the appropriate future mix of health facilities to manage the NCD epidemic.** While China in recent year has been trying to build up its hospital infrastructure, it is also important to learn the lessons of OECD and transition countries that over-built their hospital networks and struggled subsequently to adjust the system as utilization patterns shifted. In the EU for example, hospital beds have fallen in response to NCDs from around 850 per 100,000 population in 1985 to around 530 in 2009, and average length of stay from 10.5 days to just over 6.5 in the same period.⁸⁰ As a result, the delivery model has shifted from hospital-based care to community-based ambulatory centres and “teleportal” clinics. This has been facilitated by rapid advances in ICT. In addition, hospital design is increasingly flexible to allow hospitals to expand or contract in response to shifting demand, and new technologies and care practices. Such trends suggest the need for a shift in the investment planning model for China’s health system in the medium term to “right-size” the hospital network.

(c) Addressing the challenges in health financing and payment systems

Health financing reforms would benefit from a dual track approach that focuses on reducing disparities between schemes and between localities, while in the longer run further examining the role of social contributions and general revenues in health system financing. Aiming for complete equality of coverage (services and financial protection) across all schemes and all areas is probably not realistic. However, it would be desirable to explore how increased higher-level funding could help equalize a basic package of services that localities could top-up with

⁸⁰ WHO Europe, European HFA Database, 2011.

local resources and which could be supplemented further by expansion of private insurance arrangements.

In parallel, it is necessary to accelerate provider payment reform in order to increase the incentives of all health providers for efficiency and quality. There have been a number of efforts to control costs in the health system, including drug lists and zero mark-up policies, controls on use of technology etc. But without a more fundamental shift away from the current provider payment systems, the basic incentive structure of providers will continue to drive inefficiencies and inappropriate care. This needs to be complemented with a stronger emphasis on professional ethics among providers, and tools for greater accountability of providers to patients.

In the short term:

The first step in the short-term is to integrate management of HI schemes within pooling areas. This is an agenda that is already being pursued in many areas and with central policy guidance toward integration of social insurance schemes. An increasing number of coastal areas are already merging the management of NCMS and urban residents' HI schemes and have even achieved integration of the three HI schemes (e.g., Dongguan). However, this is constrained in some provinces by the split management of different schemes across the health and human resources and social security departments.

Another short term measure which should also be considered is moving from the current model of individualized coverage in HI schemes to household-based coverage. This makes sense from an insurance viewpoint, as it spreads risks across the household members of different ages with different intensity of care needs. But it also makes sense in terms of supporting the core values of social policy which include building on family institutions.

In parallel, it is necessary to accelerate pilots on provider payment reform and evaluate their impacts on efficiency, quality and health outcomes. For all levels of care, the priority is to move away from the current fee-for-service model to alternatives. For higher level care and hospitals, case-based payment is the main direction of pilots presently. This helps to contain costs and is relatively simply to manage, but may raise issues in quality of care. It can also have unintended consequences on spending on uncovered services. Other alternatives such as DRGs avoid some of these problems, but are also much more demanding of information, management and monitoring systems.

In the medium to long term:

For the medium term, integration of the three HI schemes seems a sensible and achievable goal, initially within prefectures and provinces. It would require gradual equalization of schemes in terms of benefit packages and provider payment mechanisms, as well as a financing mechanism to promote the equalization. A key question is to what extent the coverage package of NCMS and urban residents is "scaled up" toward that of urban workers and, if so, over what time-frame consistent with fiscal constraints. This could be addressed in part by offering voluntary supplemental health insurance to those in the urban worker scheme.

To support such integration, it is necessary to raise the pooling level for health insurance to at least the provincial level and to define a common model of pooling to achieve more equalized health care coverage. Provincial-level pooling has been the direction of China's health policy for some time, but progress remains limited. The first question is what model of pooling will be pursued. International experience suggests that there is no single best model suited to all country contexts.⁸¹ Japan has had a single "virtual" pooling fund since the early 1980s. Other countries such as the Netherlands use a risk equalization fund which adjusts premium and payment rates. Others pool at the national level (Sweden and UK) or regional levels (Canada and

⁸¹ See World Bank (2010), China Health Insurance Policy Note.

Kazakhstan). In a number of countries, the process of moving to higher-level pooling took a decade or more, and this could be anticipated in China. Emerging experience in China suggests that some form of risk adjustment could be an intermediate approach, which could also help manage possible resistance from richer areas within each province.

Based on the evaluation of pilots, another key medium term reform will be to roll out nationwide provider payment reforms which fundamentally realign the incentives of providers and patients. Both China's pilot experience and the growing body of global practice—including in MICs—on provider payment reform can inform roll-out of provider payment mechanisms which are case-based or move towards DRGs. This is an essential achievement if any of the other reforms and reorientation of the health delivery system is to be achieved, if uncontrollable cost escalation is to be avoided, and if public trust in the health system is to be restored.⁸²

In addition to payment reform for hospitals, continuing reforms of doctor salary and compensation systems will be needed. Measures already being initiated to delink the incomes of doctors from prescription volumes are a welcome initial step in terms of aligning doctor incentives, efficiency and appropriateness of care. But a more fundamental reconsideration of the incentives embedded in current salary structures of doctors to profit maximize rather than provide appropriate and cost-effective care will be needed over time, even with case-based or other payment system reforms. This is an area where building consensus will be unusually challenging. The diverse experience of OECD countries in striking the balance between fixed and performance-based pay, and the different incentives and outcomes that result, provide useful lessons for China in this regard (see Chapter 4 for discussion of public sector worker pay).⁸³

In the longer run, a key question in health financing is the appropriate balance between insurance contributions, general revenues and out-of-pocket spending. In the past decade, the balance of insurance contributions and general revenues has already shifted in favor of the latter with the reliance on budget subsidies to promote expansion of the NCMS and urban residents' schemes. Out of pocket spending has come down somewhat, but is still well above the Government's longer term target of around 30 percent of total health spending. The increase in general revenues financing is a realistic acknowledgement of the challenges of covering rural and urban resident populations in a standard contributory insurance model, and the labor market risks of burdening workers with overly high social contributions. If merger of the three schemes can be achieved, combining the current demand-side budgetary subsidies in insurance schemes and supply-side subsidies to facilities into a basic scheme financed largely from general revenues becomes a real possibility in the longer term. Careful consideration of the alternative budgetary revenue sources to compensate for the removal or reduction of health contributions from workers would be required.

However, rapid progress in this direction has been achieved recently within Asia (including Thailand, India, Vietnam, and Philippines), with general revenues being the source of substantial coverage expansion. Similarly in the OECD, a number of countries moved from contribution-based to tax-financed health systems in the 1970s and 1980s (e.g., Denmark, Italy, and Spain), while those that have retained a contributions-based approach have in a number of cases reduced the rates of contributions and increased the share of general revenues financing (e.g., Netherlands, Austria).⁸⁴ These experiences and China's own with NCMS and urban residents' schemes suggest that it is worth reconsidering the balance of social contributions and general revenues (and the role of higher level and local authorities) in the longer run financing of the health system.

⁸² See World Bank (2010), China Health Provider Payment Policy Note for a summary of global experience with case-based and DRG payment reforms.

⁸³ See for example, Ould-Kaci (2011) on the French medical salary system, which relies on a higher fixed salary component in total doctor compensation, an approach similar to that of Japan.

⁸⁴ World Bank (2009).

D. The role of citizen participation in social services

(1) Current Status and Challenges

In recent years, initial efforts have been made to promote roles for citizens in service delivery. Historically, citizen participation in the management and oversight of social services has been weak in China. Lack of citizen inclusion is reflected in attitudes surveys which indicate significant frustration with providers of public services. As the challenges in social services move from expanding coverage and quantity of services to ensuring that services are of adequate quality, initiatives to increase the role of citizens in promoting effective local services have expanded. However, efforts remain highly localized and for the most part in their infancy.

Increased citizen participation has several potential functions.⁸⁵ It can be a channel for citizens to understand better the challenges and trade-offs that service providers face in assuring quality within budget constraints. It is one pillar of broader “social management” reforms in China which allow for some delegation of functions by the higher levels to the grassroots level. It can also help develop the capacity of citizen groups to express their grievances and provide an institutional basis for doing so. It can also build the capacity of communities for a future role as service providers in areas where community-based provision of social services has potential (e.g., aged care and early child development services), which can help promote pluralism in service delivery in the longer run.

The roles of citizens in service delivery can take three forms progressively: consultation, presence/representation and influence.⁸⁶ Consultation involves opening channels for dialogue and information sharing. Presence and representation involves institutionalizing access for certain social groups in specific elements of decision making. Influence is the final stage at which the representation of citizens translates into impacts on policies and the way services are run and organized. In general, China is at an early stage of developing these processes.

Emerging experience with different forms of citizen participation in social service delivery in China points to significant potential for increasing citizen voice. Recent experiences in Kunming, Chengdu, and Nanjing in the education and health sectors are summarized in Box 3.2.⁸⁷ The positive features include the following:

- Citizen satisfaction with services can be improved, through feeling that their views are being taken into account and through the increased accountability of service providers to citizens.
- The initiatives act as a localized and selective experiment in representative expressions of citizen voice.
- Citizens learn about the operating environment of local social services and are able to have a more informed dialogue with service providers on ways to improve quality.
- In the case of medical mediation, the initiative has the potential to resolve grievances in a more rapid and cost-effective manner than formal dispute resolution channels.

⁸⁵ See Gong and Yu (2011), background paper for this report.

⁸⁶ See Goetz and Gaventa (2001).

⁸⁷ See Gong and Yu, op. cit, for detailed review of these initiatives, as well as experiments in urban community management in Hangzhou and Chengdu.

BOX 3.2 Initiatives for Public Participation in Social Services

Field work for this report reviewed the experience of several local initiatives on promoting citizen participation in social service delivery. The cases reviewed include:

- Kunming, the capital of Yunnan province, following a pilot, in 2008 introduced *public election of primary and secondary principals*. More than 2000 schools now have elected principals for terms of 3 years. The elections involve voting of students/parents, teachers, and experts. In addition, there is a process for regular public supervision of performance and for dismissal and by-elections. The candidates are subject to an interview process by experts, faculty, and student and parent representatives. The second round of elections has recently been taking place. Candidates can come from anywhere in China, introducing wider competition to the local education market. The former lifetime tenure of the principal has been removed as a result. Anecdotal assessment of the experience is positive among parents, students, teachers, and local officials. As one principal expresses it, his attitude changed from “I was told to do” to “I wanted to do”. Teachers report more proactive school management and an increase in teaching quality. At the same time, there are concerns that the small number of experts is easily “bought” by candidates, and votes influenced with promises of benefits to other groups also. In addition, the interview panels and voters do not include migrants for the most part, so that the potential inclusiveness of schools in the future may be undermined.
- In Nanjing, the capital of Jiangsu province, *school councils* consisting of two thirds parents or community representatives and one third school representatives have been established in primary and secondary schools. Some schools allow for voting of parental representatives. They have internal powers to vote and recommend action to the school principal, though final decision-making authority rests with him/her. At the same time, important decisions of the principal can be put to opinion polls and further examination. While there is generally a positive anecdotal assessment of the experience in terms of transparency, there are also concerns of unclear accountability for the final decisions of the principal and the legal basis of the school council’s authority to recommend and review such decisions. A number of other provinces have similar institutions from kindergarten to secondary levels. Some of them, including Shandong province from 2009, and Chengdu city in the near future, have regulations which seek to clarify the scope of authority and underlying processes of the councils in order to give them a firmer jurisdiction. The 2010 National educational development Plan for 2010–20 has also suggested establishment of such parent councils on a nationwide basis.
- In Nanjing, a *People’s Mediation Council on Medical Disputes* was established in 2008. The council has at least two full-time mediators in each district with designated budgetary allocations. They come mostly from retired health bureau or legal systems. From 2008–2010, 1700 disputes have been handled, with more than 90% successful resolution. This number doubled in 2010, including group medical disputes as well as individual claims. While the experience is judged generally positively, the legal basis for the council is not robust, and the difference in bargaining power and information between large hospitals on the one hand and claimants on the other can be high. The lack of clear legal basis for follow-up and enforcement is likely to result in patients settling claims on terms that may not be to their best advantage.

Source: Gong and Yu (2011)

At the same time, the experiences reveal the challenges for effective citizen participation and the inherent trade-offs involved, including:

- While simple consultation may have value, for the real impacts of citizen participation to be felt, a clear policy and institutional framework is needed so their participation is not ad hoc but is truly linked to formal decision-making structures and the incentives of providers. Such a framework needs clearly to spell out the responsibilities and accountabilities of the citizens’

group, service providers, and local officials. It should also provide a clear financing base for the sustained operation of such initiatives.

- The specific interests of citizen groups (e.g., parents of a school) may at times run counter to some wider social policy objectives. For example, parental pushes to tighten student entrance criteria to promote elite student selection may run counter to wider efforts to reduce disparities between schools. This may be a particular problem with respect to future inclusion of migrant children.
- Citizens may not at times have the information to make informed decisions on matters involving questions of technical judgment, which can weaken their influence and bargaining power. This challenge is likely to be particularly pronounced in the health sector, where asymmetry of information between providers and patients is significant. This can be addressed through appropriate involvement either of citizens who have such knowledge and/or experts who are able to provide such inputs to the decision-making process.
- There is not as yet good evaluation of the impacts on both processes and relevant outcomes (both qualitative such as client satisfaction and “harder” indicators such as student performance, health facility quality indicators, or patient outcomes).

(2) Addressing the Challenge of Enhancing Citizen Participation in Social Services

National policies already set a clear direction for increased participation of citizens in social service delivery, but the key question is how to make this more effective in improving the quality of services and user satisfaction and ensuring consistency with equity objectives. Chinese and international experience point to several key challenges in promoting citizen participation that moves from consultation to structures and processes that give real authority and influence to citizens. The experiences reviewed above point to the importance of having a clear policy and legal framework for citizen participation, and a robust institutional and financing framework for ensuring that citizen participation is truly representative and does not place the costs of participation unduly on citizens themselves. To date, most citizen participation in China can be considered “state-mediated,” and there may be room in the future for initiatives that are more directly driven by citizens, as seen in many other parts of the world. There is also a major agenda for strengthening the capacity of citizens’ organizations to play a more informed and effective role. International experience also suggests that there are unexplored possibilities for extending the areas of citizen participation upstream beyond service provision to involvement in development of emerging policies for social services. Finally, it is important to define the limits of citizen participation more clearly in order to avoid raising expectations that cannot be met.

Looking ahead, some measures that can support this agenda include:

In the short term

- *Rigorous evaluation of experience in citizen participation in social services at the provincial and sub-provincial levels.* This would include qualitative assessments of the policy, institutional, and financing frameworks for participation; surveys of providers, service users, officials, and other stakeholders; and development of indicators on the extent of citizen participation and its impacts on service quality, education and health outcomes, client satisfaction, provider behavior and attitudes, and so on.
- *Development of national policy guidelines which draw on the lessons of evaluations.* The broad encouragement given by policies such as the National Education Development Plan will need to be made more concrete. In the health sector, the ongoing reforms would benefit from more explicit incorporation of citizen participation, which could include expansion of sub-national pilots in tools for citizen feedback on service quality such as citizen scorecards and web-based feedback and complaints services.⁸⁸

⁸⁸ See Brixli (2009).

- *In provinces where there is already experience, institutionalization of citizen participation processes and institutions, for example through the adoption of provincial policies (e.g., as in Shandong with parent councils) and assured budgetary allocations to fund the effective operation of relevant mechanisms.*
- *Information and education campaigns among citizens, officials, and providers on the benefits of citizen participation, the challenges and limitations, and practical guidance on how to initiate and institutionalize mechanisms. This should include expansion of IT-based tools for informing citizens and seeking their inputs.*
- *Investment of public resources in capacity building of citizen groups and organizations to increase their effectiveness in social service oversight and management.*

In the medium to long term:

- *Use of provincial policies and guidelines on citizen participation in social service delivery and oversight as a condition of receiving central transfers in the education and health sectors, with a similar requirement for sub-provincial levels in order to qualify for provincial financing of social services.*
- *Inclusion of indicators on citizen participation in the monitoring and results systems of the education and health sectors and in the system for assessing the performance of local official.*

Chapter 4 Developing a Flexible and Secure Labor Market

An innovative and internationally competitive China will need a workforce that can adjust quickly to changing market conditions and will need to ensure that workers continue to share in growth and have secure labor protection. To promote this notion of “flexicurity,” the report proposes:

- Lowering barriers to labor mobility by ensuring the portability of pension and social security rights and phasing reforms of the hukou system so all residents have equal access to a common set of social entitlements by 2030.
- Increasing the labor supply from the existing workforce. This will involve ensuring that older urban workers—particularly women—do not exit the labor force prematurely, through a mix of measures including raising the retirement age. Higher rates of off-farm rural employment for those unlikely to migrate to urban areas should also be promoted.
- Building labor market institutions that allow for a sustainable balancing of the interests of workers with the need to maintain competitiveness, in particular exploring options to reduce labor taxation and develop a more mature wage determination system.

A growing labor force has played an important role in China’s economic performance, but supply and wage dynamics are shifting. From just under 600 million in 1980, the labor force is expected to peak at 1 billion around 2015. The dramatic increase in labor mobility has reinforced the contribution of labor to overall growth. The movement of rural labor has enhanced productivity and fed the low-wage model of Chinese growth. But the situation is changing. In the 1980s and 1990s, real wage growth for migrant workers was fairly flat, while labor market returns to higher levels of education were high and sustained.⁸⁹ However, since the mid-2000s, a notable degree of wage convergence has taken place across skills levels and across space within the country. While all urban wage growth has been high in recent years, that of low-skilled workers has been particularly so, roughly doubling in real terms from 2001–2010.⁹⁰ Despite that, productivity growth has to date outstripped wage growth, avoiding inflationary pressures from the labor market (although there are signs of slower labor productivity growth in the second half of the 2000s).⁹¹

At the same time, the share of labor income in GDP fell during the 2000s, raising concerns about capital bias which may have contributed to rising inequality. The labor share was consistently around 60 percent of GDP from 1990 to 2004 before falling sharply to under 40 percent by 2008.⁹² While it has rebounded somewhat since then, there are questions concerning whether labor has been getting its “fair share” of the fruits of growth since the mid-2000s or whether the falling labor share was a short-run phenomenon produced by the transfer of labor to the more capital-intensive urban economy.

Looking ahead, China faces new labor market challenges as it seeks to move from middle- to high-income status. These include:

⁸⁹Rozelle et al. (2002); Cai and Wang (2010).

⁹⁰See Park et al (forthcoming); Cai et al (2011, a). Note that some commentators point to higher food and rental shares of migrants and low income workers in consumption relative to the CPI, both items that have risen faster than the overall CPI.

⁹¹See Cai and Wang, op. cit.

⁹²Adjustments in statistical measures around the time of the initial decline raise questions of how much it was a statistical artifact, but there appears consensus that a significant fall in labor income share occurred.

- *The aggregate labor force will start to shrink from around 2015, initially slowly but faster from the late 2020s, and is projected to be more than 15 percent smaller than its peak by 2050.*⁹³ The smaller labor force will support a growing elderly population.
- *China will no longer have the limitless rural labor surplus that has shaped the country's comparative advantage for the past 30 years.* Indeed, a number of researchers claim that the “Lewis turning point” was reached as early as 2003. The combination of shrinking/exhausted unskilled surplus labor and the concomitant massive increase in workers with senior secondary and higher education will fundamentally shift the dynamics of labor supply. This represents a huge opportunity for demand to adjust and move China up the value chain, but it also carries risks.
- *The rapid wage growth in recent years among migrants and low-skilled workers is accompanied both by rising expectations and evidence of compression in the productivity growth premium.* While this wage growth has been a positive phenomenon, it raises the question of how to balance the continued need for upward real wage adjustments with sustaining competitiveness as productivity growth eases over the coming decades in the face of diminishing returns to capital investment.
- *As migrant workers shift from being a “floating” to a more permanent urban population, they will increasingly expect better non-wage benefits, as well,* including social security coverage and other urban social entitlements such as free education and social housing which have historically only been available to local *hukou* workers.

A. Unleashing the Potential of Labor

(1) Trends and Challenges of China's Labor Market

With China's labor supply falling from the middle of this decade, it will be essential to ensure that labor force participation among the current stock of working age adults is adequate and that they are employed in the most productive ways. The discussion in Chapter 3 on human capital emphasized that the quality of *future* workers will need to improve for China to sustain robust productivity growth in the face of a declining labor force. However, there is also significant potential to increase labor supply among the *current* stock of working-age adults (primarily older urban workers). There is also scope to enhance the productivity of other groups: first, those who remain in rural areas, by increasing their participation in off-farm employment; and second, urban informal sector workers, many of them migrants. This section discusses these challenges and potential measures to address them.

There is considerable debate in China on the need to relax the one child policy to offset the impacts of rapid ageing. The policy has contributed to a fertility rate (1.54 according to the 2010 census) that is below what would be expected at China's income level. However, the experience of middle-income and East Asian countries and that of parts of China raises questions as to whether eliminating the policy would have a significant impact on the fertility rate. The TFRs of countries such as Japan and Korea (both around 1.3) and Vietnam (1.8) suggest that the long-run fertility increase may not be major even if the policy were eliminated. There may be other social reasons to relax the policy, but from a labor supply standpoint, this report argues that China will still face significant challenges in coming decades.

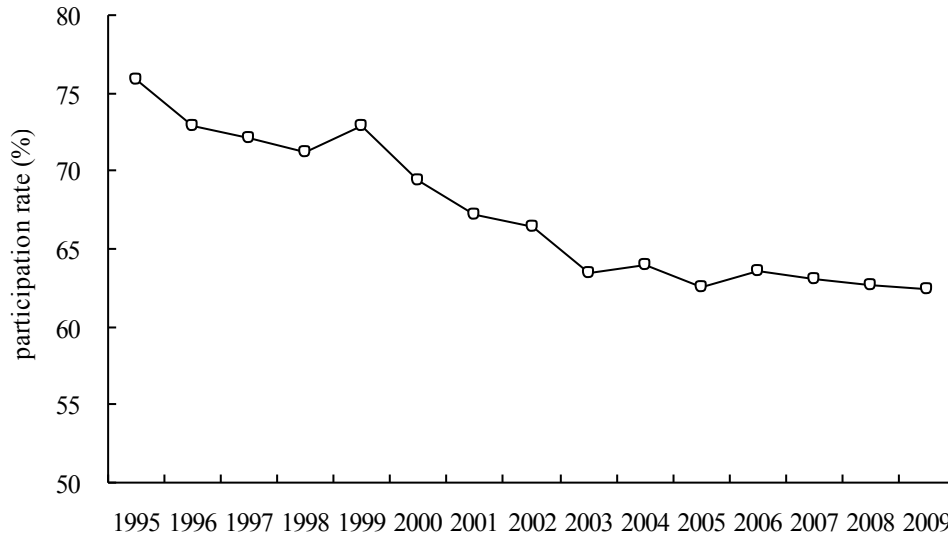
(a) The supply and structure of the labor force

While urban labor markets have seen a vast influx of migrant labor, they have also witnessed substantial declines in labor participation rates among local urban workers. This can be seen in Figure 4.1, which shows a steady fall in urban labor force participation rates (LFPR) among

⁹³ These trends appear to be accelerated in the light of the 2010 census results.

local workers from mid-1990s to 2009.⁹⁴ While this appears to have stabilized at 62–64 per cent, it is useful to understand the drivers.

FIGURE 4.1 Urban labor force market participation rate among local workers, 1995–2009



Source: Cai et al (2011). From China Statistical Yearbook (various years), China Statistical Press; China Population and Employment Yearbook (various years), China Statistical Press.

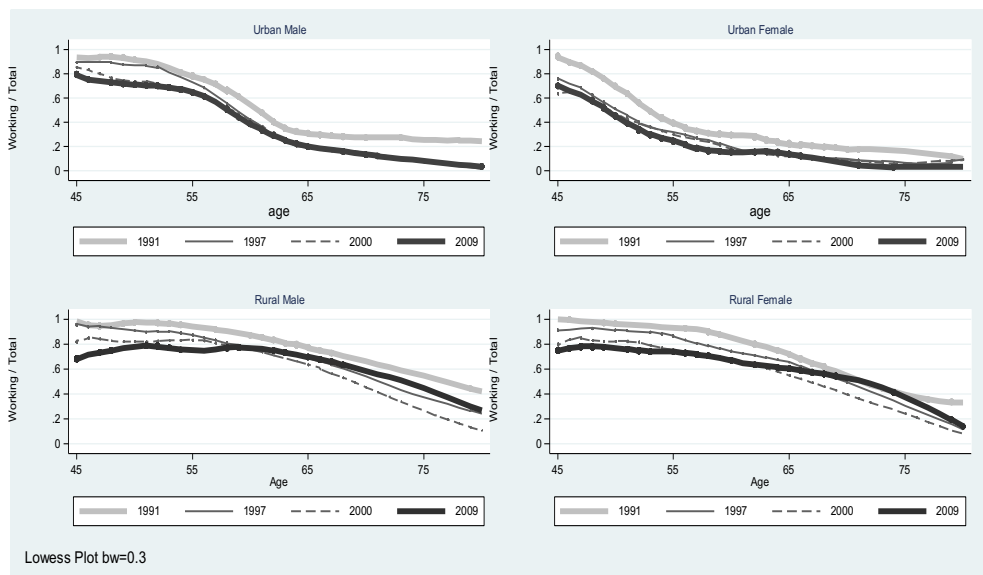
The overall decline in LFPR among local urban workers masks different patterns among younger and older workers. The mid- to end-2000s saw slight increases in participation among younger urban workers but a notable decline among those in their 50s. The decline among older workers has been a long term phenomenon and has continued after the main wave of SOE restructuring and more than offset the small increases in participation among younger workers. Even more striking is how early urban women withdraw from the labor force, with only around 20 percent LFP by the official retirement age of 55.⁹⁵ It is difficult to say to what extent the decline in participation among older workers is a supply-side phenomenon or is driven by the combination of demand for younger and better-educated workers and the big influx of cheap migrant workers in the same period, but regardless, it is clearly a long-term feature of urban labor markets. While LFPRs have also fallen for older rural workers, they remain much higher till much later ages than for their urban peers (Figure 4.2).

International comparisons reveal that China's local urban population has a significantly short working life than their peers in other countries. Figure 4.3 shows LFPRs for older workers for Korea, Indonesia, the United Kingdom, and the United States. While women withdraw from the labor force earlier than men in all cases, both urban men and women in all other countries shown withdraw noticeably later compared to those in China. The findings are strongly suggestive of challenges in the Chinese labor market and policy environment, which are likely to become more acute as society ages. The issues include early and mandatory retirement for men and women, hiring policies of employers who appear unwilling to hire older workers, and lack of opportunities for skill upgrading and “lifelong learning” among older workers.

⁹⁴ LFPRs are not reported in official statistics in China and have to be constructed. See Cai et al (2011a).

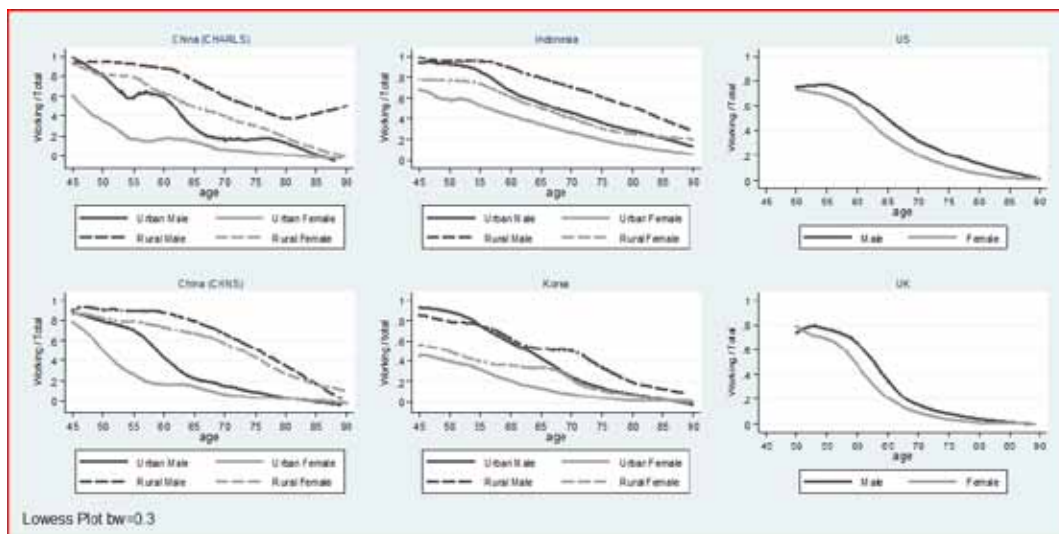
⁹⁵ Analysis also finds that work intensity among older urban workers has not increased to offset the falling supply and, if anything, has slightly declined over the same period. See Giles, Wang and Cai (forthcoming).

FIGURE 4.2 Employment rates of older workers by age, gender and rural/urban 1991–2009



Source: Giles, Wang and Cai (forthcoming), using CNHS waves.

FIGURE 4.3 Employment Rates by Age and Gender in China, Indonesia, Korea, UK and US



Source: Giles, Wang and Cai (forthcoming). Data sources: China: 2009 CHNS & 2008 CHARLS pilot; Indonesia: 2007 Indonesia Family Life Survey; Korea: 2006 Korean Longitudinal Study of Aging; United States: 2008 Health & Retirement Survey; United Kingdom: 2008/9 English Longitudinal Study of Ageing.

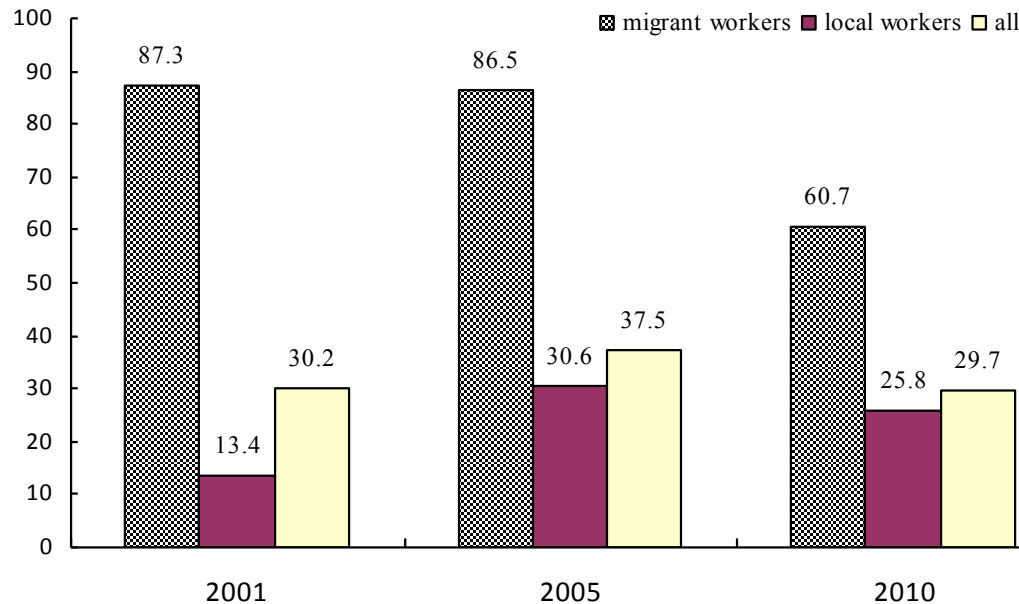
Gender analysis of urban wages suggests that one reason for early labor market withdrawal by urban women may be the gender wage gap. Hourly wage differentials between urban men and women have been consistent at 22–25 percent between 2001 and 2010.⁹⁶ Decomposing the differential to take account of both individual and job characteristics (sector and ownership type), the overwhelming bulk of the gap cannot be explained by observable characteristics, with

⁹⁶This is comparable to the gender wage gap in OECD-26 countries of 16 percent in 2008. However, both Korea (at 38 percent) and Japan (at 30 percent) were outliers, against countries such as Italy, which had a less than 2 percent gap. www.oecd.org.

the unexplained share of the difference ranging from 76-90 percent over the same period.⁹⁷ Recent analysis also confirms that returns to work experience in the labor market for women and notably lower than men.⁹⁸

A second issue in urban labor markets is the share of informal work and the potential to enhance productivity and worker protection through reforms that facilitate greater participation in the formal sector. Labor informality in urban China has undergone major transitions in the past two decades. Although the overall share of the informal sector in urban employment has decreased in recent years, it still accounts for a large proportion of the urban labor market (Figure 4.4). Notably, over 60 percent of migrant workers in 2010 were in the informal sector, indicating a remaining agenda for their incorporation into urban social security and labor regulation systems. Even within the formal sector, migrant workers are heavily underrepresented in monopoly sectors (usually SOE-dominated) where wages are higher than competitive sectors and where there is evidence of “wage rents.” In 2005, migrant workers accounted for only 3.1 percent of employment in monopoly sectors, compared to their 40 percent share in the overall urban labor force.⁹⁹

FIGURE 4.4 Size and composition of informal employment in urban labor market various years



Source: Cai et al (2011), based on CULS data, various years.

(b) Rural labor supply

Another potential source of future productivity growth is reallocation of rural labor from agriculture to off-farm activities. The decline of the Chinese labor force has been the subject of much speculation, in particular on whether the rural labor surplus has already been or soon will be exhausted.¹⁰⁰ Under even the most optimistic scenarios, it seems clear that the rural labor surplus is declining and will certainly be exhausted before 2030. At the same time, the profile of the remaining rural labor force suggests significant scope to increase productivity within rural areas through movement to off-farm activities in their localities.

⁹⁷ See Cai, Wang and Du (2011).

⁹⁸ See China Human Capital Report (2011), China Institute for Human Capital and Labor Market Research.

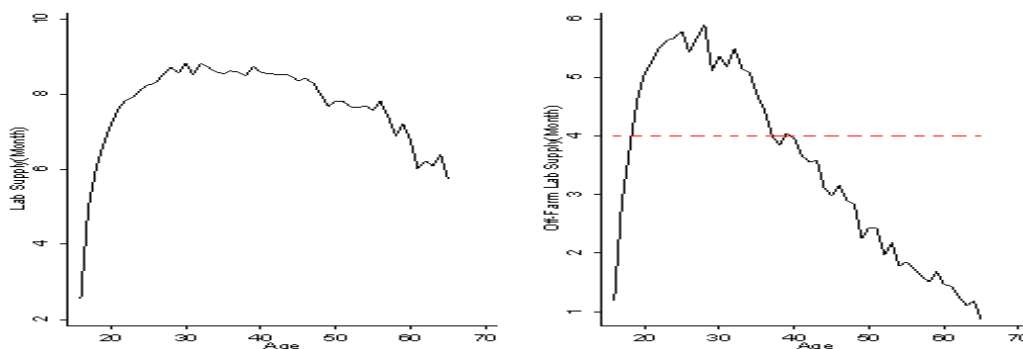
⁹⁹ See Yue, Li and Sicular (2011) using data from the 1 percent population census of 2005.

¹⁰⁰ There are many contributions to the “Lewis turning point” debate in China. See the symposium on the subject in China Economic Review (vol. 22, 2011).

The profile of the remaining rural labor force indicates that their potential for substantial urban migration may be limited. The profile of those still working in agriculture is not one that would normally be in high demand in urban areas—they are almost 47 years old on average, 60 percent of them are women (often with caring obligations for children and/or aging parents) and have average educational attainment of only 7.3 years (less than a complete mandatory general education). While there may be some scope for further movement from agriculture to urban areas, the observation by one set of authors that “all the low hanging fruit has been picked” seems accurate.¹⁰¹ The argument is supported by analysis from other national surveys which found in 2007 that over 80 percent of rural laborers aged 16–30 were in non-farm activities, typically working as migrant labor.¹⁰²

However, analysis of rural work patterns also suggests that there is still significant scope for increasing the labor supply of existing workers and their participation in off-farm work. Analysis of data on time and place worked (farm or off-farm) among the rural population from the 2005 mini-census indicates significant underemployment in rural areas, with average labor supply being under nine months even in the peak period of work life (Figure 4.5). If one equalizes total months of rural work to full-time equivalent workers (assuming a ten-month work year), the total agricultural working population shrinks from the official estimate of 297 million to 231 million, around 22 percent lower. The analysis also shows low intensity of off-farm labor supply, with participation in off-farm employment averaging only around four months and dropping sharply after age 40.

FIGURE 4.5 Labor Supply by age for Rural Labor Force (LHS) and Rural off-farm (RHS), 2010 (months per year)



Source: *Migrant Workers Monitoring Report in 2010*, mimeo.

(2) Addressing the Challenges in Labor Supply

Raising labor force participation among older urban workers, increasing formal sector employment in urban areas, and incentivizing further participation in off-farm rural work can help dilute the impacts of a shrinking labor force. One important point for policymakers is to avoid the “lump of labor” fallacy, which suggests that keeping older workers in jobs reduced employment opportunities for younger workers. International evidence consistently shows that this is not the case. Some reforms and initiatives that could help to address labor supply challenges include:¹⁰³

¹⁰¹ Park et al (2011).

¹⁰² See Huang et al (forthcoming), cited in Park et al (2011).

¹⁰³ See OECD, *Live Longer, Work Longer* (2006). Murrugarra (2011) discusses policy responses in Latin America to similar challenges.

- **Gradually raising retirement ages in the urban pension systems, removing the mandatory retirement age, and ending disincentives for later retirement.** These reforms are politically challenging reform but seem unavoidable as society ages. Starting earlier can allow for a more gradual increase in retirement ages, to at least 65 for both men and women. Many OECD and transition countries have undertaken this reform in recent years, with the annual increase in the retirement age ranging from a more gradual pace of one to three months a year in OECD countries to six months per year in many transition countries. If reform can be started in the 12th Plan period, by 2030, the age for men could reach 65 with a fairly gradual increase of three months per year, while for women full equalization would take longer.
- **Facilitating access to part-time jobs and flexible work arrangements for older workers.** A key area of employment experimentation in OECD countries is flexible work arrangements for older workers. This includes arrangements such as “job-sharing” to split a full-time position across more than one worker (as for example in Germany) and more opportunities for part-time work. Such arrangements can help facilitate greater labor force participation by women, which seems to be a particular challenge in China. Some countries have used wage subsidies for older workers to support such measures, although this needs to be done carefully to avoid distortions in the labor market. China would benefit from a close assessment of international lessons and expansion of pilots domestically.
- **Enhancing mid-career skills training and upgrading.** By the time workers reach their 50s, employers may feel that investing in skills upgrading has low returns. OECD experience suggests that skills upgrading at mid-career is both more attractive to employers and intervenes before the “point of no return.”
- **Strengthening the focus of employment services on placement of older workers.** A number of OECD countries have introduced specific employment service programs for older workers, piloting new approaches to promote effective job search. This has been supported in some cases by special incentive payments for private employment agencies for placement of older workers.¹⁰⁴
- **While the above measures would also be beneficial for rural workers, additional policies could help facilitate their more active participation in off-farm labor.** To the extent that there is greater relocation of production away from coastal areas, more opportunities should be available for rural workers closer to their homes. This may increase their willingness to move into off-farm work, but in many cases, they will need significant investments in training and skills upgrading of rural and migrant workers to be able to take advantage of such opportunities. Substantial investments have been made in recent years.

B. Building Modern Labor Market Institutions

International evidence suggests that labor market institutions can have important impacts on the distribution of income. The effects of labor market institutions on macroeconomic performance, income distribution, employment, and other variables remain disputed.¹⁰⁵ However, reviews of international evidence agree on one consistent finding: the strength of labor market institutions in determining wages has a significant impact on the distribution of income both within countries and across them.¹⁰⁶ Given China’s desire to control the rise in inequality, the potential role of labor market institutions is therefore of importance. This section focuses on two key labor market institutions: labor taxation and wage setting, including broader wage determination and minimum wages in the urban labor market.

¹⁰⁴ See OECD (2006), op. cit.

¹⁰⁵ The effects of LM institutions on indicators such as employment and unemployment rates are the subject of debate. See Freeman (2007) for a review of the literature.

¹⁰⁶ See Freeman (ibid).

(1) Wage determination

(a) Overall wage trends and wage setting

Wage setting above the minimum is a highly decentralized process that is in the process of evolving toward a mature and uniform “system” of wage bargaining. The first provisions on collective contracts were in the 1994 Labor Law, and a series of guidelines and regulations have been issued periodically since then. The number of workers covered by collective contracts increased from around 50 million in 1998 to 94 million in 2009. Most recently, the Employment Contracts Law, effective from 2008, provides the legal framework, supplemented by the 2010 regulations for the “Rainbow Project” of MOHRSS which urges complete coverage of collective contracting in firms with trade unions by the end of 2012.¹⁰⁷ Firm-level contracts are to be supplemented by regional- and industry-level collective contracts. The expansion of collective contracts has been mirrored by the increase in members of local branches of the state trade union, rising from around 100 million in 2000 to 226 million in 2009.¹⁰⁸

Wage negotiations are guided in principle by Wage Guidelines issued by the local labor authorities.¹⁰⁹ The local guidelines are based on annual surveys of local firms for different occupations in various industries and work within national criteria. Each profession has a top, middle, and bottom wage level, and the national method is in principle meant to provide comparability across regions. The system is meant to provide an external reference point for employers in wage setting, and the number of occupations and sectors covered has gradually expanded since introduction.

In practice, collective bargaining is at an early stage of development and faces a number of challenges in maturing from a consultative to a truly bargained process. While the mechanism of collective contracting is spreading in urban firms, the practice can be considered more one of “wage consultation” rather than bargaining in the standard international sense.¹¹⁰ Evidence shows that such consultation has reduced labor confrontations in multinationals who have such mechanisms, but it is also clear from the rising incidence of labor disputes in China that much remains to be done. A key challenge in the process of developing truly tripartite wage bargaining is the role of the All-China Federation of Trade Unions (ACFTU), which is still evolving toward a role as the representative of workers in wage discussions. A second issue is the role of wage guidelines, which are based on surveys that are often not fully representative of the local labor market, and in any event play an unclear role in the discussions over wages at the firm level.

Public sector wage setting are determined separately and the mechanism for wage setting is not systematic. On one hand, analysis suggests that over 50 percent of the wage gap between monopoly (largely state-owned) industries and competitive industries cannot be accounted for by observable characteristics of workers.¹¹¹ In contrast, in social services, the education sector introduced from 2009 an element of so-called performance-related pay (PRP), but these sought to address a complex set of issues related to the relative pay of rural teachers, the pay of teachers generally relative to civil servants, and a desire to reduce incentives for informal payments.¹¹² In the health sector, the fee-for-service system that has historically dominated naturally produces an indirect form of performance (or at least volume of service) based pay, some of the negative effects of which are discussed in Chapter 3.

Wage outcomes in the urban labor market indicate that varied mechanisms are driving wage setting. In recent years, there have been positive signs of rapid convergence of the average wages

¹⁰⁷ See Wang et al (2011), background paper.

¹⁰⁸ <http://www.mohrss.gov.cn>.

¹⁰⁹ A Notice on Building the Wage Guideline System of Labor Market, MOHRSS (1999).

¹¹⁰ See Shen and Benson (2008) for a useful comparison of Chinese wage consultations and typical ILO standard wage bargaining. Bai (2011) discusses the role of ACFTU and interactions with the interests of capital and labor.

¹¹¹ Yue, Li and Sicular (2011).

¹¹² See Wang and Gong (2011).

of migrant and local workers, indicating that the labor market fundamentals of demand and supply are overcoming rigidities in wage setting mechanisms. The convergence can be seen in the falling differential in average hourly wages over the 2000s and in the degree of difference that can be explained by observable individual and job characteristics. Table 4.1 shows the rise in hourly wages of migrants relative to local hukou workers from only 35 percent in 2001 to 78 percent in 2010.¹¹³ In addition, the proportion of the difference explained by observable characteristics rose from 82 percent in 2001 to 98 percent in 2010. In contrast, evidence on wages in monopoly sectors—mainly dominated by SOEs—indicates that in 2005, a high wage gap remained between SOE workers and those in competitive sectors. Around half of that difference could not be explained by the characteristics of the workers in monopoly and competitive sectors, such as gender, education, age, and so on.¹¹⁴

TABLE 4.1 Hourly wages of migrant and local workers, and % of difference explained by observable characteristics, 2001–10

	2001	2005	2010
Migrant hourly wage as % of local workers	35.0	46.7	78.0
% of difference explained by individual characteristics	74.7	62.3	63.7
% explained by individual and job characteristics	81.7	72.5	98.0

Source: Cai et al (2011, b), using CULSS 1-3, and Oaxaca-Blinder decomposition.

(b) Minimum wages

Minimum wages in China are a fairly recent phenomenon and the system is still evolving, with as yet unclear significance in wage determination and market wages. The first minimum wage regulation was only in 1993, with articles also in the 1994 Labor Law. However, it was not until 2004 and then further in 2007 that more detailed guidelines on minimum wage setting emerged.¹¹⁵ Minimum wages are set at a decentralized level, most often at the municipality level, and should be adjusted at least every two years (although with no clear indexation mechanism). As shown in Figure 4.6, real minimum wages across China have increased by almost two and a half times since the mid-1990s, with a rising share of cities doing annual adjustments (except in 2009 with the global financial crisis).

Standards for minimum wage setting focus on the relationship with cost of living and relative wages rather than productivity. According to the 2004/07 regulations, factors to be taken into account in setting minimum wages include the local minimum living cost, urban consumer price index (CPI), social contributions, average wages, and the economic and employment situation in the locality. Factors not mentioned include productivity, producer prices, and share of informal economy. City-level data on minimum wage elasticities show that minimum wages have the strongest association with the level of average wages, followed by local average consumption, while the urban CPI has a significant but much smaller effect.¹¹⁶

While minimum wages have adjusted sharply upward in recent years, the vast majority of formal and informal workers in urban areas have labor incomes above the official minimum. Table 4.2 shows that almost all workers—whether migrant or local, men or women—receive

¹¹³The *total* average monthly wages of migrant workers are in fact higher than those of local workers as migrant workers work more hours.

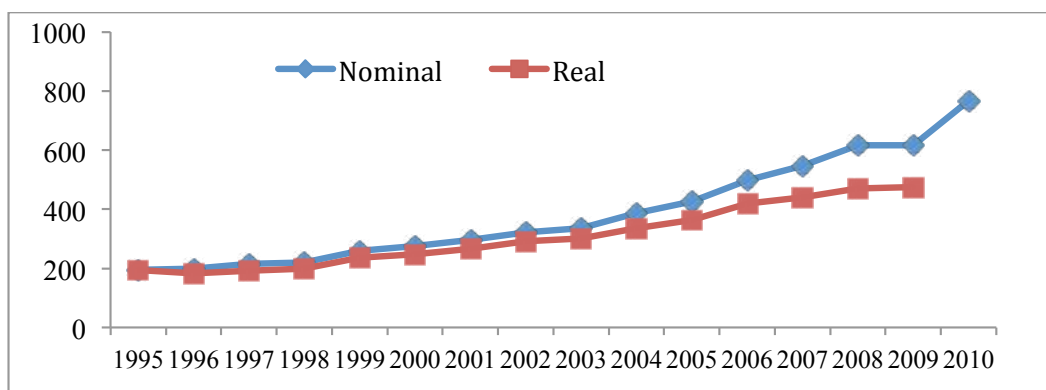
¹¹⁴See Yue et al (op. cit).

¹¹⁵Regulations on MW in Enterprises (1993); Provisions on MWs (2004); and MOLSS Notice on Further Developing the MW System (2007).

¹¹⁶Cai et al (2011, b).

labor income above the city-level minimum wage. Overall, the minimum wage is increasingly not a wage that workers generally are paid (or earn) in urban areas, but it serves as a reference point significant in its relativities to overall wage levels and to social benefits and thresholds. It therefore performs a benchmarking and administrative function, as well as an important political signaling function of the concerns of the authorities for low-wage workers. The question for coming years is whether the minimum wage will evolve toward playing a more direct role in the labor market, as discussed in the policy recommendations section below.

FIGURE 4.6 Urban minimum wage adjustments, 1995–2009 (1995 RMB)



Source: Cai et al (2011b), from Minimum Wage Dataset, from labor bureaus and yearbooks.

TABLE 4.2 Share of migrant and local workers with income above minimum wage by gender, 2001–2010

	Share of migrants above minimum wage (%)	Share of locals above minimum wage (%)
CULS2001		
Male	92.3	95.5
Female	86.3	88.9
Total	90	92.6
CULS2005		
Male	88.3	91.2
Female	76.4	83.5
Total	83.2	87.9
CULS2010		
Male	98.2	97.2
Female	97.1	97.3
Total	97.7	97.3

Source: Cai et al (2011,b).

(c) Improving approaches to wage determination—looking ahead

Wage determination will play an increasingly important role in coming years in balancing the interests of workers and sustained competitiveness. The key will be to strengthen the linkage between wage setting and productivity growth. Real wages in urban China have enjoyed a period in which they have risen rapidly but below productivity growth. As the rural labor

surplus is exhausted, productivity growth from labor transfer will decline over time. However, worker expectations of sustained rapid wage growth will be entrenched, increasing the challenges of sustaining the productivity/wage of recent years.

Aside from minimum wage reforms, other reforms of wage setting in the formal sector will need to be deepened to achieve a more uniform and market-based approach to wage setting. While the overall direction of such reforms is common across the PSU, SOE, and private formal sectors, the starting points differ. The pace of reform and factors to be considered thus also differ. Directions to be considered include:

- *SOE sector reforms.* For SOEs, the initial priority is to establish a robust system of benchmarking wages so that SOE wages are increasingly determined by reference to relevant comparators in the wider labor market rather than simply the amount of profits available for distribution to workers. The current wage premia of SOEs are a reflection of underlying distortions in the operating environment of SOEs and are difficult to justify on either efficiency or equity grounds. Although strengthening and enforcing a rigorous benchmarking system will be challenging for SOEs in sectors where only the state sector is active or in cases where a single employer is a monopoly, the more generic types of functions could be benchmarked against the outside market (e.g., accountants, secretaries, drivers). It would also be useful in the case of local monopolies to benchmark their wages across regions to get a broad sense of within-industry comparability and identify outliers.

Enforcing wage discipline in the SOE sector will be challenging, but it could yield significant benefits for the Chinese economy and also result in a more equitable distribution of wages across society. The specific nature of the benchmarking process would be a matter for the Chinese authorities to consider further, but the evidence strongly suggests that a transparent system of some form is needed. Over the longer run, the direction of reform would be to have SOEs conducting collective consultation and bargaining in the same way as other firms under current labor legislation.

- *PSU reforms.* The issues in wage setting for PSUs are somewhat distinct, as there is the additional challenge of promoting accountability of public sector workers while ensuring that they are compensated adequately. Given the unsystematic nature of PSU wage setting, it would be desirable in the short to medium term to develop a national strategy on reforming PSU wage setting, including for social services. This could be linked to broader systems of HR management, professional development and promotions.

A big question for China is the extent to which it wishes to have performance-based pay as an element—and if so, to what degree—in setting wages for workers in the education and health sectors. Overall, there is a desire to explore the possibilities of PRP in the social sectors, but clarity on the objectives and potential modalities is lacking. The international experience in recent years suggests that PRP is not suitable for all types of public sector workers. In considering the appropriateness of PRP, several questions must be addressed: (i) how closely is performance actually linked to pay, and what other factors are driving provider performance? (ii) how much are policymakers willing to shift the risk of low performance from the state to providers themselves? (iii) are there indicators of performance that are consistent with the overall policy objectives of the sector and that have credibility among workers in the sector? (iv) if so, can those indicators be measured in a reliable, consistent, and transparent manner? (v) what unintended consequences may result from an over-reliance on certain performance indicators?¹¹⁷; and (vi) are there alternative approaches to incentivizing better performance by providers that may be more acceptable to the professions and less likely to induce unwanted behavior by providers, e.g. structuring the promotions system within the education and health

¹¹⁷The standard example in education is teachers “teaching to the test” when examination results are a key indicator, perhaps neglecting the development of other skills in students. Another example is over-servicing by health providers when “performance” is determined according to the volume of services provided.

sectors to place a higher emphasis on performance and results rather than seniority or other factors. More broadly, if PRP is implemented primarily to address shortcomings in the wider system of governance and accountability in the education and health sectors, there may be other instruments for achieving the goals more effectively.

In considering whether PRP is appropriate, it is clear that *purely* performance-related pay is not suitable for teachers and health providers due to the perverse incentives that may result. If it is to be applied, a base compensation with some degree of bonus would be more appropriate. In addition, a stronger system, for determining promotions and peer appraisal of performance is needed. International experience also suggests that a “one size fits all” approach to PRP should be avoided. The specific characteristics of the population being serviced should be taken into account in assessing provider performance—for example, through adjustments to account for remoteness or specific challenges of servicing particular population groups such as migrants or minorities. Box 4.1 summarizes some lessons of experience of PRP in OECD countries in the health and education sectors.

BOX 4.1 Lessons from performance related pay experience for civil servants in OECD countries

Despite a growing history of experiences with performance-related pay for health and education workers in OECD countries, the desirability and outcomes of PRP remain contested, and the gap between rhetoric and reality is often large. As of the mid-2000s, two-thirds of OECD countries had PRP for public sector workers or were introducing it (OECD, 2005). The objectives underlying the introduction of PRP vary and are often related to the desire to promote wider organizational or management change, in addition to objectives related to the motivation or performance of individual workers. The scope of PRP initiatives has also varied, with schemes often more focused on managerial public sector workers and/or in specific sectors. In addition, the actual assessment of performance varies, with some systems having no or low individual assessment.

While the degree of PRP is not as great as may sometimes be claimed, salaries of civil servants in most OECD countries consist of three components: (i) base pay, (ii) pay based on the specific duties of the position, and (iii) a performance-related element. The share of PRP has generally been fairly modest, with PRP bonuses rarely more than 10 percent of the base pay of civil servants, although closer to 20 percent for management-level staff. Some overall trends or features emerge from the review of OECD experience, including:

- There has been some expansion in the use of team or group performance as the benchmark for assessment of PRP.
- The countries with the strongest PRP emphasis are also those with the highest delegation of human resource and budgetary management responsibilities.
- In a number of cases, PRP systems have tended to become more decentralized over time.
- The criteria for assessing performance have become more diverse, with greater attention to outputs as well as competencies and social skills. At the same time, PRP systems have become less formalized and detailed, relying less on quantifiable indicators of performance.
- Many countries have experienced implementation problems, for example prior to introduction in negotiations with unions and workers, during the deployment phase with management who may not well understand the system and objectives, and in terms of the costs in money and time for introducing PRP and the monitoring systems that it requires.
- International experience suggests that PRP itself may be only one factor in motivating workers, who emphasize other factors such as job content and satisfaction, flexibility of working arrangements, and promotion and other forms of recognition.
- PRP should not be used in isolation but as a tool to promote wider organizational reform, and the objectives and performance criteria should be set with this in mind.

Sources: OECD (2005); Wang and Gong (2011).

Formal private sector. For the formal private sector, the challenge will be to develop a mature system of collective bargaining. To make progress in this direction, the role of the union as an effective voice of workers in wage negotiations will be expected to strengthen. Gradual reforms in collective bargaining can be supported by efforts to make the labor market more competitive so that the relative bargaining strength of employers and workers reflects underlying supply and demand in the labor market. This is starting to happen to some extent as the earlier labor surplus declines and workers have a credible position of exit to other firms if wage settlements are inadequate. The bargaining process in the private sector can also benefit from better information on productivity growth through an improved system of labor statistics.

As a starting point, the basic function of the minimum wage will need to be reoriented. The primary function of the minimum wage is to ensure that workers are not exploited due to their limited bargaining power and that they receive a wage that fairly reflects their contribution to productivity growth. It is not intended on its own to pull families out of poverty; keeping families out of poverty is the job of other policies, particularly social protection programs. Setting minimum wages too much according to their poverty function could actually harm low-income workers by increasing unemployment or pushing them into the informal sector.

China's challenge over the coming decade will be to shift from its current "living wage" approach with respect to the minimum wage to a "wage floor" approach which is more common in OECD countries. Like the current approach, "wage floor" approach takes into account a number of factors in determining the minimum wage. Table 4.3 provides examples of factors that are included in determining the minimum wage in some OECD countries as well as Hong Kong, China, and Taiwan, China. The major distinction is that some measures of productivity growth and/or competitiveness are the primary factors in minimum wage setting. While price inflation and other factors remain important, the key is adjusting minimum wages to reflect productivity growth. China has elements of this approach in its current policy, but the relative balance between a needs-based approach and a productivity-based approach is toward the former.

Shifting toward a "wage floor" approach will require an improved system of labor market statistics to provide timely and reliable measures of productivity to the authorities setting minimum wages. At present, the Chinese statistical system does not produce such measures on a timely basis. Reforms of labor market statistics will need to be deepened, with regular surveys of representative samples of firms and workers. Greater efforts will be needed to include small- and medium-size firms in the samples. Historically, firm surveys have been based on information from large and state-owned firms, probably resulting in an upward bias in wage data.

(2) Labor taxation

(a) Current status

China is a high labor taxation country if one pays all social insurance (SI) contributions. The rates of social contributions are high by any standard, and also exhibit considerable variation across and within provinces (e.g. within Guangdong alone, the employer contribution rate for pension in 2010 ranged from 9 percent in Dongguan to 22 percent in Zhanjiang). Pension dominates, in part driven by the high costs of funding legacy pension costs (see Chapter 5).

By international standards, the "tax wedge" on workers is higher than most OECD countries, and well above East Asian regional comparators. Figure 4.7 shows the "tax wedge" on labor for a single worker on average wage in urban China compared to other countries, including the housing contribution.¹¹⁸ China's tax wedge of 45 percent is very high. In addition, the

¹¹⁸The tax wedge is calculated as (total labor cost—net take home pay)/total labor cost. So for China, assume payroll = 100 RMB, then total labor cost (100 + 42) = 142; net take home pay (100—22) = 78, and tax wedge = (142-78)/142=45.1%. For many countries, one would also calculate the PIT levied after deduction of SI contribution, and OECD also allows for transfers from the state (e.g. income tax credits). In China, neither of these is included in the calculation for the average urban worker who falls below the PIT threshold. See OECD for data across countries.

share of SI contributions in total tax wedge is even higher, as most countries have a tax wedge composed of social contributions and personal income tax (PIT), while the average worker in China does not pay PIT.

TABLE 4.3 Minimum wage approach and criteria, various countries, end-2000s

Country	Minimum Wage approach	Key Criteria for MW determination
Australia	Wage floor	Productivity; business competitiveness; relative standards of living; workforce participation rate.
Korea	Wage Floor	Cost of living; economic growth rate; average wage level; labor productivity; unemployment rate; consumer price index and income distribution. There is no fixed weight for this factors and the relevance of each is determined within the Councils debate and varies in time.
Taiwan, China	Wage Floor	Conditions of national economic development; Price index; National income and average individual income; Labor productivity of different industries & employment situation; Workers' wages in different industries; Survey and statistical figures on household income & expenditure
United States	Wage Floor	Manufacturing productivity; affordability to employers; cost of living; wage levels.
United Kingdom	Wage Floor	Pay differentials; inflation; business costs; competitiveness; employment; economic conditions.
France	Living Wage	Overall wages and income; CPI; economic conditions; needs of workers and families.
Hong Kong SAR, China	Wage Floor	General economic conditions: latest economic performance and forecasts; Labor market conditions: labor demand and supply, wage level and distribution, wage differentials and employment characteristics; Competitiveness: productivity growth, labor costs, operating characteristics of enterprises, entrepreneurship, business sentiment and solvency and relative economic freedom and competitiveness; Standards of living: changes in employment earnings and inflation.

Sources: HK Provisional MW Commission (2010); World Bank (forthcoming).

TABLE 4.4 Urban Social Insurance Contribution Rates in Urban China

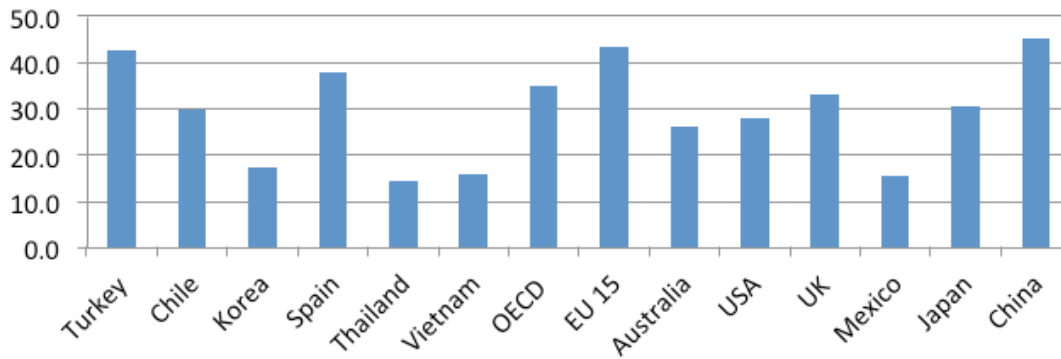
Type	Employer	Employee
Pension insurance	20 percent of payroll	8 percent of monthly wage
Unemployment insurance	2 percent of payroll	1 percent of monthly wage
Medical insurance	At least 6 percent of payroll	2 percent of monthly wage
Work injury insurance	0.5-2 percent of payroll	No contribution
Maternity insurance	0.5-1 percent of payroll	No contribution
Total	29-31 percent of payroll	11 percent of monthly wage

Source: Authors' compilation based on policy directives and documents of MOHRSS and DHRSS.

High average labor taxation becomes very high for low-income workers, leading to outright avoidance of formal employment or “selective formalization” of employment relations within the formal sector. The tax wedge on labor dampens incentives for formal sector participation for all workers, but an even more extreme impact can be seen when considering the marginal

SI contribution rate of low-paid workers. This effect is produced by the policy of setting the minimum SI contribution wage at 60 percent of the average wage in each locality. Table 4.5 shows the distribution of urban workers in a selection of large cities whose wage falls below the 60 percent threshold. Around one-third of all workers fall below the minimum contribution base threshold. For those at 50 percent of the average wage (13–29 percent of all urban workers in these cities in 2010), the effective SI tax wedge if they are in the formal sector would be around 67 percent. This is clearly an exorbitant burden of labor taxation and could be expected to be a strong disincentive to formal sector participation at the lower end of the wage income distribution.

FIGURE 4.7 Tax wedge on average formal sector worker, various countries, 2010



Source: OECD, 2011. For tax wedge definition, see footnote 110.

TABLE 4.5 Share of workers with income below minimum SI contribution base (40–60% of average wage), 2001–2010

		2001	2005	2010
Below 60%	Shanghai	32.35	29.05	31.37
	Wuhan	36.95	37.44	37.96
	Shenyang	28.1	33.84	31.41
	Fuzhou	32.88	30.69	31.3
	Xi'an	40.44	31.16	35.99
Below 50%	Shanghai	28.56	22.89	25.12
	Wuhan	11.53	28.89	29.07
	Shenyang	9.98	15.9	13.68
	Fuzhou	19.85	20.74	21.53
	Xi'an	20.72	17.64	18.05
Below 40%	Shanghai	13.91	12.58	13.09
	Wuhan	3.45	14.13	11.19
	Shenyang	4.87	9.8	7.52
	Fuzhou	11.66	13.12	12.51
	Xi'an	7.04	6.64	9.16

Source: CULS 3, using city average wage from survey average, in Cai et al (2011, b).

“Selective formalization” can be seen in the varying levels of participation in different types of “mandatory” SI in urban areas. The total number of contributing urban workers ranges from 194 million for pensions, 178 million for health insurance, only 134 million for unemployment insurance, and under 80 million for housing funds. (for 2008, the latest available year).¹¹⁹ Whether driven by employer and/or employee preferences, there is clearly large-scale and tactical “opting out” of social insurance schemes in response to high tax rates. At the same time, most urban SI funds continue to generate significant surpluses.

(b) Reforming labor taxation—looking ahead

As part of its overall adjustment of the tax structure, it would be desirable for China to lower the tax burden on labor over time. The reform of labor taxation is only part of the broader tax restructuring discussed in the Economic Restructuring report. If new revenues such as property taxes can be introduced, the potential to reduce taxes on labor may increase. Any reduction would need to be gradual and carefully sequenced to avoid over-volatility in public revenues.

Even within the current system, labor taxation could be reduced in some areas without unduly harming the benefits that workers derive from their contributions. These areas include housing, unemployment, and pensions. An additional issue that could be addressed in such reforms is the high marginal contribution rate for low-paid workers, which would be important to consider as part of a wider strategy to incentivize formal sector participation. More specifically:

- *The pension contribution* has potential for reduction, although it is a more complex matter if worker benefits are to be protected. However, there appears to be scope for a win-win solution for workers and employers which could reduce contribution rates significantly while protecting the replacement rates of pensions. This would involve: (i) financing the “legacy costs” of the current pension system from an alternative source which could spread the financing burden over a very long period and (ii) considering switching the urban workers scheme to a Notional Defined Contribution (NDC) approach. The details are discussed in Chapter 5.
- A more marginal option for reducing social contributions is the *unemployment contribution*, which at 3 percent has scope for reduction given the surpluses of Employment Funds and the sustained low unemployment rate in China. The use of such funds for training and other purposes could be substituted by general revenues financing and would most likely induce efficiencies which are not promoted currently through the guaranteed revenue of the unemployment insurance contribution.
- *The housing contribution*—when paid in full—is very high and has questionable benefits for many workers. The high share of workers and employers already opting out of the housing scheme points to low demand for the program, in large part due to negative real returns and the inadequacy of benefits. While there is a huge need to look at housing policy for workers, housing funds have proven to be an ineffective way of achieving the desired protection and may have helped inflate property markets by acting as a cheap source of liquidity for local authorities. The primary source of resistance to such a reform would thus likely be local authorities rather than workers or employers.

C. Promoting Hukou Reform and Improving Labor Mobility

(a) Hukou reform—current status and challenges

The hukou system is one of the key sources of inequality of opportunity in China, and its most distinctive feature of social policy.¹²⁰ The mobility restriction function of *hukou* has largely

¹¹⁹ MOHRSS data from end-2010, and NBS (2011).

¹²⁰ Hukou divides the population into rural (agricultural) and urban (non-agricultural) residents, largely according to the place of birth. The hukou status of parents is generally transferred to children. The match is not exact, but the majority of rural people have agricultural hukou.

been eliminated in practice by reforms since the late 1980s.¹²¹ However, the failure to have parallel entitlement reform has meant that *hukou* continues to have significant negative impacts on welfare and equality of opportunity. Some comparative studies point out that the *hukou* system results in much more limited access to social entitlements than those for internal migrants within EU countries, and immigration policies in Germany, Japan and Mexico.¹²² The *hukou* system regulates many social entitlements of citizens, including education, housing, utilities subsidies and social protection, and also affects the ease of accessing formal sector jobs. It is widely acknowledged that deepening *hukou* reform in China has the potential to provide substantial equity and efficiency benefits. At the same time, it is also agreed that *hukou* reform is a gradual and challenging process.

***Hukou* reform can support China's transition to a high-income country in several ways.**

First, it can contribute to economic growth. Deepening reform of the *hukou* system could increase the allocative efficiency of the labor market and promote productivity-enhancing structural transformation and urban agglomeration effects. World Bank estimates indicate that moving 10 percent of the labor force out of the agriculture sector could lead to a 6.4 percent increase in GDP growth, with higher gains in western and central regions.¹²³ Reform of social entitlements that are linked to *hukou* is key in deepening the human capital base and promoting a healthier workforce. Second, *hukou* reform can play a role in narrowing rural-urban and regional income gaps. Simulations show that completing *hukou* reform can have a dramatic equalization effect between rural and urban income.¹²⁴ Third, well-designed *hukou* reform can promote inclusive and manageable urbanization, which can help reduce the inequalities in income and access to services which arouse social tensions.

The functions of the *hukou* system have already been transformed since the 1980s to match the evolving economic and social needs of China, but further reforms are needed to respond to new labor market and economic imperatives. Overall, the mobility restriction function of *hukou* can be said to have been eliminated in practice by reforms since the late 1980s, but the failure to have parallel entitlement reform has meant that *hukou* continues to have significant negative impacts on welfare and equality of opportunity through differential access to basic services for migrants, and by increasing transactions costs of labor mobility.

Hukou reform has been an important part of wider economic reforms in China.¹²⁵ The early stages of *hukou* reform first encouraged the shift of agricultural labor off-farm into TVEs, then increasingly into small and medium cities, and eventually eased restrictions on movement into large cities, feeding the massive expansion of migrant labor from the second half of the 1990s. The 2000s saw increased policy emphasis on promoting rural welfare and deepening rural-urban integration, but *hukou* reforms in major urban centers have for the most part remained localized. At the national level, further measures are being used to ease *hukou* eligibility for small and medium cities. At the sub-national level, different types of reforms have been initiated:

- ***Unified hukou registration.*** Starting in 2001, 15 provinces had unified the registration function of unified *hukou* by 2009. However, in most places, due to the absence of supporting entitlement reforms, people have continued to enjoy different rights depending on the place of their original *hukou*, so the reform has been largely symbolic to date. In practice, most medium and large cities have gradually lowered the criteria for migrants to change *hukou*

¹²¹ However, there remain cases in very large cities where this process remains incomplete, such as Beijing where applicants for government jobs and in many enterprises require a Beijing *hukou* to be considered.

¹²² Solinger (1999); and Roberts (1997) re Mexico.

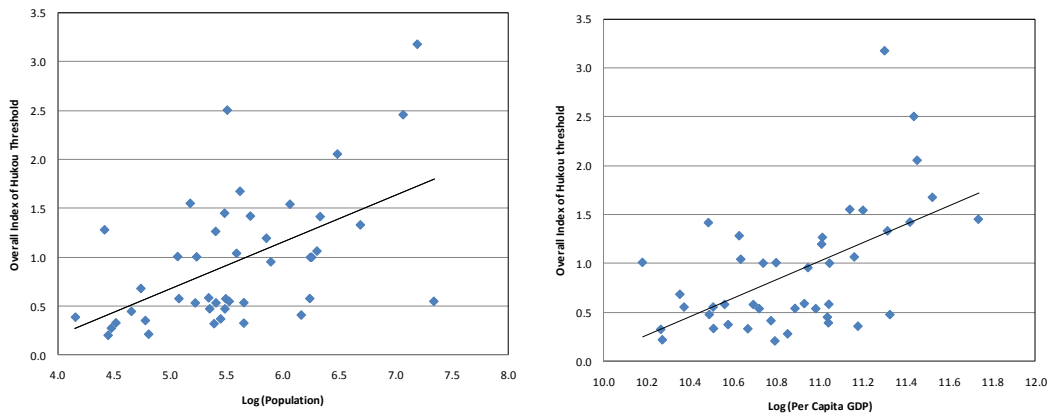
¹²³ See World Bank (2005).

¹²⁴ See Hertel, et al (2002); Whalley and Zhang (2004), both of which used CGE models to explore the impacts of removing all migration restrictions. Also Zhu and Luo (2010) for a detailed study of Hubei province on the positive distributional effects of labor mobility.

¹²⁵ See Wang and O'Keefe (2011) for a review of the evolution of *hukou* and its reform since 1958.

identities with accompanying entitlements. As illustrated in Figure 4.8, the threshold for “full” *hukou* conversion to a status with the full entitlements of local residents has been higher in richer and larger cities. Box 4.2 describes some of the local innovations as well as reveals the tendency in some provinces to give differential treatment to migrants from within the province or prefecture and migrants from further afield.

FIGURE 4.8 Index of hukou conversion restrictions by city against population and per capita GDP, late 2000s



Source: Wu, Li and Xiao (2010) for *hukou* index, and Statistical Yearbooks for population and GDP.

- *Establishment of a parallel residence permit system*, which is intended to delink access to basic services for migrants from *hukou* status itself. A number of large cities and provinces such as Shanghai, Shenzhen, Zhejiang, Guangdong, Jiangsu, Chongqing, and Chengdu have adopted the residence permit system. The approach differs across cities, with some offering easier access to permits but with more limited rights; others offering a better package of entitlements but with stricter criteria to obtain the residence permit (e.g., Shanghai); and others mixing the two approaches for those with temporary residence permits and those with permanent and fuller entitlements (e.g., Zhejiang).

Local pilots in *hukou* reform point to a number of challenges in achieving fuller rural-urban integration if pursued only at the sub-national level, such as:

- *Local reforms have been least complete in the large cities where rural migrants are most concentrated, at least for migrants from outside the municipal or provincial jurisdiction.* At the same time, urban *hukou* in small and medium cities entitles the migrant to less generous social services and social protection, contributing to the limited success of the policy aimed at attracting migrants to smaller cities.
- *Reforms in larger cities have generally been oriented to better-skilled and richer migrants, significantly limiting their labor market impacts and reducing the equity benefits of reform.* Exclusion of migrants is done in a variety of ways, for example through entry barriers on skills, investments, or income or through rationing by strict income/work and residence requirements.

BOX 4.2 Recent innovations in hukou reform

Local *hukou* reforms are diverse and offer lessons for national efforts to deepen reform. They include:

- **A score system for hukou conversion.** In 2009, Guangdong introduced a cumulative points system to manage *hukou* conversion. This is focused primarily on intra-Guangdong migrants, while the residence permit system regulates the entitlements of other migrants. Points are calculated based on education, vocational certificates and professions, years of social insurance contribution, social contributions such as blood donation and voluntary work, and government awards. In parallel, all migrants are encouraged to apply for residence permits to receive additional public services and welfare. The impact to date has, however, been lower than expected. With a three-year target of 1.8 million conversions, only 100,000 *hukou* conversions were done in the first year.
- **Strict and fixed conversion criteria with rationing.** Shanghai was the first city to introduce the residence permit system open to all, but the qualifying conditions are among the strictest. The Shanghai system prioritizes three categories: (i) those with college degrees or special talents and those who work, do business, or invest in Shanghai and their families; (ii) those who have stable employment and housing; and (iii) those reunited with family members with Shanghai *hukou*. Residence permit holders enjoy equal public services including children's education, health and family planning services, training, social insurance, and driver's licenses. They require seven years of social insurance contributions before applying for *hukou*. In addition, Shanghai has a tight overall quota on *hukou* conversions, and the number of conversions has to date been very low.
- **Localized *hukou* conversion through exchange of rural and urban entitlements.** Chongqing has encouraged family migration with *hukou* conversion, but only for those who are rural residents of Chongqing. *Hukou* transfer to urban districts requires that migrants work or do business in the area for more than five years, purchase commercial property, or make significant investments/tax payments. Requirements are much lower for *hukou* transfer in small cities and towns. The key feature is the so-called "exchanging three rural clothes for five urban clothes" policy: the "rural clothes" being homestead land, farm land, and contracted forest land, while the "urban clothes" are pension, medical insurance, housing, employment and education. Those converting from rural to urban *hukou* can keep farm and homestead land and forest for three years but must give it up thereafter if they wish to retain their urban *hukou*.
- ***Hukou* conversion of local residents without exchange of rural rights.** Chengdu introduced a residence permit system with two types of permits: temporary and permanent. The residence permit and *hukou* conversion is only open to those who are already residents of rural areas of Chengdu prefecture. Local migrants apply for temporary permits if they stay between one month and one year and for a permanent permit if staying over a year. Local migrants will be issued residence permits if they have contracted jobs, register for business, purchase housing, or are dependents of residence permit holders. Residence permit holders enjoy more public services and welfare than temporary residence holders and are eligible for *hukou* conversion.

Source: Wang and O'Keefe (2011).

- *Uncertainties and potentially high opportunity costs with respect to rural land holdings constrain demand by migrant workers for urban hukou.* In developed areas, rural land values are high, and rural *hukou* holders could lose the windfall from land conversion if they change from agricultural to non-agricultural *hukou*.
- *Lack of social entitlement reform in hukou policies is likely to result in inter-generational losses and missed opportunities for higher human capital acquisition by migrant children.* For example, while national policy is to provide free education for migrant children in urban areas, in practice the localities that fund the education have failed to achieve the policy objective.

- *Local urban residents have concerns about the potential knock-on effects on service quality in cities if their localities have to absorb the costs of service provision for migrant populations.* Sociological research finds that urban residents are concerned about migrant workers compromising the quality of services in cities and driving down wages.¹²⁶ Managing such perceptions may be as significant an element in *hukou* reform as the technical and policy issues.
- *Perhaps the key constraint to deeper hukou reform is financing the provision of public services and social welfare for migrants.* Under a decentralized finance system, local governments primarily finance core social services and social protection. They do not have incentives to provide free or subsidized services for migrant families given the limited public input and resources.

The above challenges point to the key economic problem of *hukou* reform: the benefits of reform are national in scope, but the costs are overwhelmingly local due to the inter-governmental financing arrangements for basic services. This is a classic externalities issue, making collective action a major challenge. Cities only capture some of the benefits of financing entitlement reform, and the localized returns on investments remain unclear with a mobile migrant population. While their localized choices not to fund or to underfund basic services for migrants may therefore be rational, the resulting situation is suboptimal from a national perspective.

(b) Reforming the *hukou* system

Hukou reform needs a phased strategy implemented over an extended period, with the end goal of *hukou* being a simple population registration system, delinked from social entitlements. It needs national-level planning in close coordination with provincial authorities. The key issue is not *hukou* reform *per se*, but what are the necessary pre-conditions of entitlement and welfare reform that will reduce the importance of *hukou*, turning it ultimately into a more typical population registration system such as exists in many other countries. These pre-conditions will require different types of collective action—across agencies and across levels of government—in order to ensure that reforms that are socially and economically optimal at the aggregate level do not continue to be delayed. It will also require consultation with the public to explain the rationale and strategy for reform.

The first step of the reform strategy could be to set a national framework for extension of the residence permit system, in order to begin the process of delinking social entitlements of non-local residents from their *hukou* status. While it would not be practical in the short to medium term to expect common levels of eligibility criteria (e.g., the number of prior years of residence or of social insurance contributions), it would be important to have common indicators that urban jurisdictions could adapt to local conditions (e.g., period of prior local residence). The criteria could be informed by the many local pilot programs and might take an approach such as Guangdong's with its scoring system in order to avoid overly rigid rules. A second practical implementation challenge would be establishing national standards for information systems and data exchange of information on mobile populations. While a fully centralized national database seems overly ambitious for the present, a common platform would be essential to underpin an effective reform.

A second dimension of the reform is the spatial expansion of more liberal residence permit and *hukou* conversion eligibility standards. A gradual expansion of the spatial scope of registration permit eligibility is also likely in such a framework—beginning with all rural residents of the prefecture, then extending to all people with *hukou* of that province, and ultimately opening up residence permits to those from beyond the province. This pattern is already

¹²⁶ Solinger, op. cit.

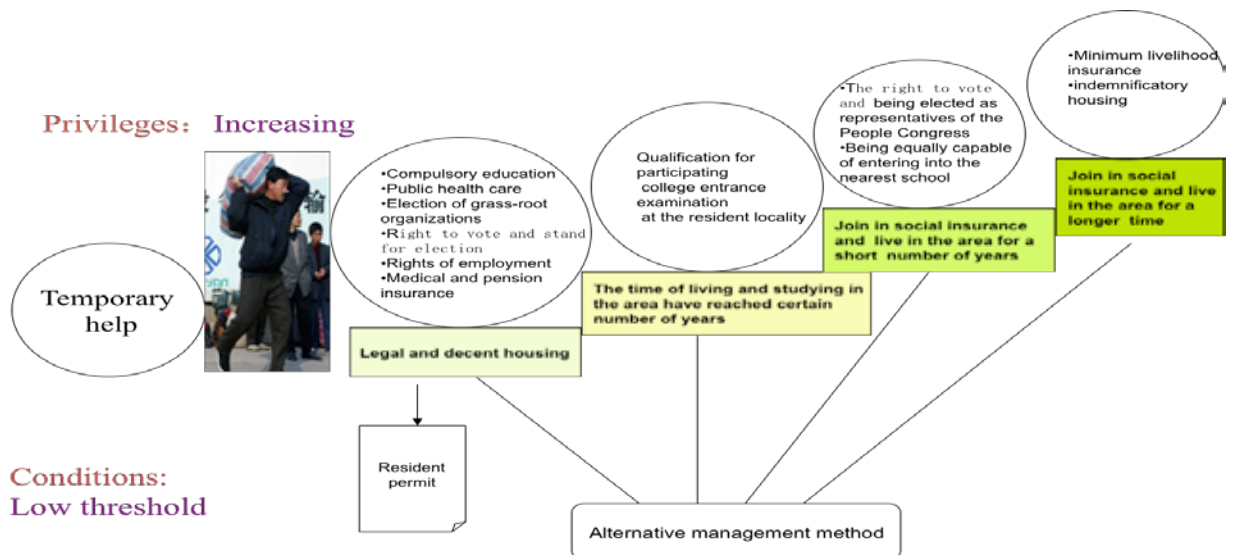
visible in local reforms in places such as Chengdu, Chongqing, and Guangdong and provides a sequence for phased equalization of entitlements.

A third issue to address would be the extent of rights conferred once a migrant obtains a registration permit, as well as the possible sequencing of such rights. Again, current pilots may be informative on this issue. In the initial phases, it would be unlikely that the full social entitlements of local residents could accrue immediately upon obtaining a residence permit. However, it would be important to create a pathway within the local permit system for gradual acquisition of the same social entitlements as local residents, prioritizing rights such as children’s education. The pace and scope of rights given to residence permit holders may also become a source of competition among cities in trying to attract non-local workers as the aggregate labor force shrinks and rural labor surplus is exhausted. An illustrative graduation strategy is shown in Figure 4.9.

Under such a common national framework, the residence permit could be rolled out nationally by the second half of this decade. Once universally established, the qualifying criteria and the pathway toward the same rights as local residents could be accelerated over time. In this way, a residence permit could by 2030 have the same social entitlements as those of local workers and could be obtained after a reasonably short period of residence in a city with modest qualifying criteria.

A key challenge in making such a transition effective would be agreement on the financing responsibilities for social services of those obtaining residence permits. This would be a complex negotiation between national and sub-national authorities but should be guided by a clearer understanding of migrant flows across space and of the externalities of labor mobility. There could be fiscal burden sharing which could be more weighted toward national financing in cases where migrants came from beyond the jurisdiction of the province, and it could involve a role for the province in the case of intra-provincial migrants. Certain entitlements would have a significant degree of self-financing by the migrant household that would be built into the qualifying criteria, for example with social insurance contributions in the urban workers’ system.

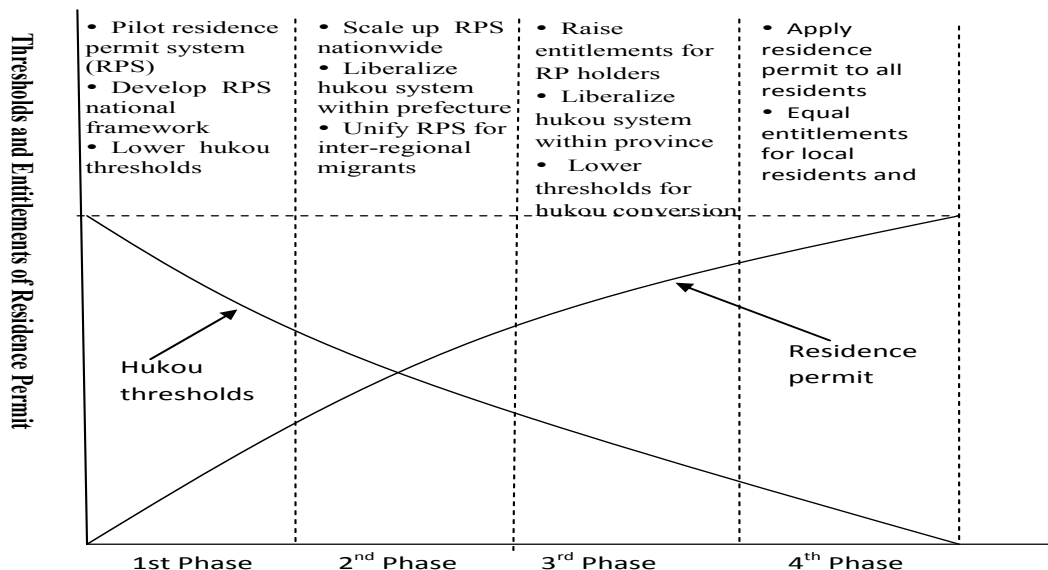
FIGURE 4.9 Progressive acquisition of social entitlements for non-local workers—illustrative case



Source: Gong and Wang (2011).

Figure 4.10 summarizes a possible sequence of *hukou* reform which gradually expands the residence permit system to diminish the relevance of *hukou* ultimately to a simple population registry system. It shows the progressive expansion (in terms of both coverage of population and extent of entitlements) of the registration permit system among non-local populations over time and the parallel reduction in full *hukou* conversion thresholds. It also notes key steps to reach the end goal of all local and non-local citizens merged into a single population registry system with common entitlements based on city of residence rather than original *hukou* status. More detailed measures at each stage of this process are discussed in Annex 1.

FIGURE 4.10 An indicative trajectory for residence permit expansion and hukou unification



(c) Portability of pension rights

Lack of portability of pension rights has acted as an additional barrier to the mobility of workers, both across space and also across sectors within urban areas. Until very recently, there have been no national guidelines for portability of accumulated pension rights when moving to a different city or when moving employment from one subsystem of the urban pension system to another.¹²⁷ The level of pooling of contributions has been highly localized, with only recent efforts to pool partially to the provincial level. As a result, workers face uncertainty when moving across space and/or occupational sectors. This is likely to act as a barrier to greater labor mobility and efficient job matching, undermining productivity growth.

Recent guidelines recognize the need for portability reform and provide principles for its realization within the urban workers pension system.¹²⁸ Effective from 2010, there are principles for workers in the urban workers pension system to transfer both their individual account accumulations and their accumulated social pooling rights to other jurisdictions when they move jobs. This is a major step in terms of reducing the welfare costs of labor mobility. How-

¹²⁷The urban pension system has separate systems for civil servants, public service unit (PSU) workers, regular urban employees, and in richer areas for urban residents, each with different rules, replacement rates, etc. See World Bank (forthcoming).

¹²⁸State Council Interim Provisions on Portability of Pension Benefits of the Urban Enterprise Pension System, December 2009.

ever, principles for portability of pension rights across urban pension subsystems or between rural and urban systems have not yet been adopted.

While the new guidelines are a welcome step, their effective implementation will require progress on implementation systems. Even within provinces, there remain significant practical barriers to reliable and timely transfer of pension rights. Most prefectures have information systems that are not compatible, so transfer of pension records remains a cumbersome process of physical movement of paper records across cities. Moving to a system that can provide an effective clearing mechanism across cities and provinces is therefore an important but challenging agenda.

Portability of pension rights is a short- to medium-term priority which will in time be made less pressing as greater merging of rural and urban schemes and higher level pooling of contributions and pension records take place. The guidelines on portability of rights within the urban workers' pension scheme provide a good foundation for phased expansion of portability across space, across schemes, and thus across different classes of workers. In principle, as fuller integration of pension schemes is achieved, the need for portability should be lessened. Similarly, to the extent that national pooling of the social pool portion of contributions can be achieved this decade, full portability within the urban workers' scheme would be facilitated. Pooling across schemes is a longer-term prospect.

Key steps to increasing portability of pensions and thus reducing the welfare and transactions costs of labor mobility for workers and administrators would include:

- *Following the lead of the urban scheme, putting in place similar guidelines during the 12th Plan period for portability of entitlements across all pension schemes to facilitate spatial and sectoral labor mobility.* For the individual account portion of any schemes, the principles of this are straightforward. Valuing and moving the implicit entitlements in the rural pension scheme and the urban residents' scheme is more complex but can be achieved. Principles for portability of entitlements across civil servant, public service unit (PSU), and urban worker schemes would also not be straightforward but could be facilitated greatly by gradual consolidation of urban schemes, starting with PSU and urban worker schemes (see social security section for discussion). Once developed, implementation of the guidelines could be initiated during the 13th Plan period and the system gradually consolidated.
- *To support the portability of both individual accounts and social pooling entitlements, a clearing mechanism would be needed for transfer of individual pension records and any necessary cross-jurisdiction and/or cross-scheme financial settlement.* This is a huge challenge and one that has proven difficult to achieve even within provinces to date due to fragmentation of information systems, lack of commonly agreed data standards, and lack of vision on the preferred models of data sharing. The first step would be agreeing common standards for exchange of pension records and financial settlements. The *jin bao* program of MOHRSS would be the logical vehicle for developing consensus between the national and provincial authorities. However, design and deployment of a nationally integrated clearing mechanism likely will not be achieved until around 2020, and bilateral exchanges between sending and destination areas of mobile workers would continue to be the norm this decade.
- *The more fundamental reform that would facilitate portability of pension rights is the achievement of national pooling of social insurance contributions.* This is a long-held goal of national policy, not only for pensions but also for health insurance. However, progress has been slower than hoped, with partial provincial pooling only recently being achieved. For health insurance, pooling to date has tended to be even lower down the system at the prefecture or county level. Higher-level pooling of pension and eventually health insurance contributions would be the single most effective measure to facilitate portability. Realistically, it might be achieved in a phased manner with a gradually larger portion of provincial contributions pooled to the national levels over time as the information and administrative systems to manage information and funds flow are consolidated.

Chapter 5 Enhancing Security and Improving the Social Security System

China has made remarkable progress in putting in place the core elements of a market-compatible social protection system since the transition from the “iron rice bowl” of work unit-based social protection. Since the 1990s, it has introduced a swathe of social protection programs at a speed that is unprecedented internationally. These include: pension and health insurance programs for urban and rural populations; unemployment, sickness, workplace injury, and maternity insurance for urban formal sector workers; a national social assistance scheme which now covers around 70 million people; and other reforms. This is a feat that took decades in OECD countries, and which most middle-income countries have to date failed to achieve.

The vision of social protection development for 2030 is that:

- All households participate in the pension and health insurance systems, and the system is integrated among different segments of population (rural, urban, migrants) and across different segments (civil servants, PSU employees, and workers on the one hand, and residents and rural workers on the other). With rapid population aging, the pension system would also benefit from parametric and structural reforms to ensure sustainability and a basic level of benefits.
- China has a well-developed and decent quality system of aged-care and long-term care services which draws upon the human and financial resources of the government, the non-state sector, communities, and households and provides a minimum level of service even for the poor.
- There is greater coherence between different parts of the social protection system so that it assures adequate and affordable minimum coverage of benefits for poor households but also ensures that the near-poor are not disadvantaged and “poverty traps” created.

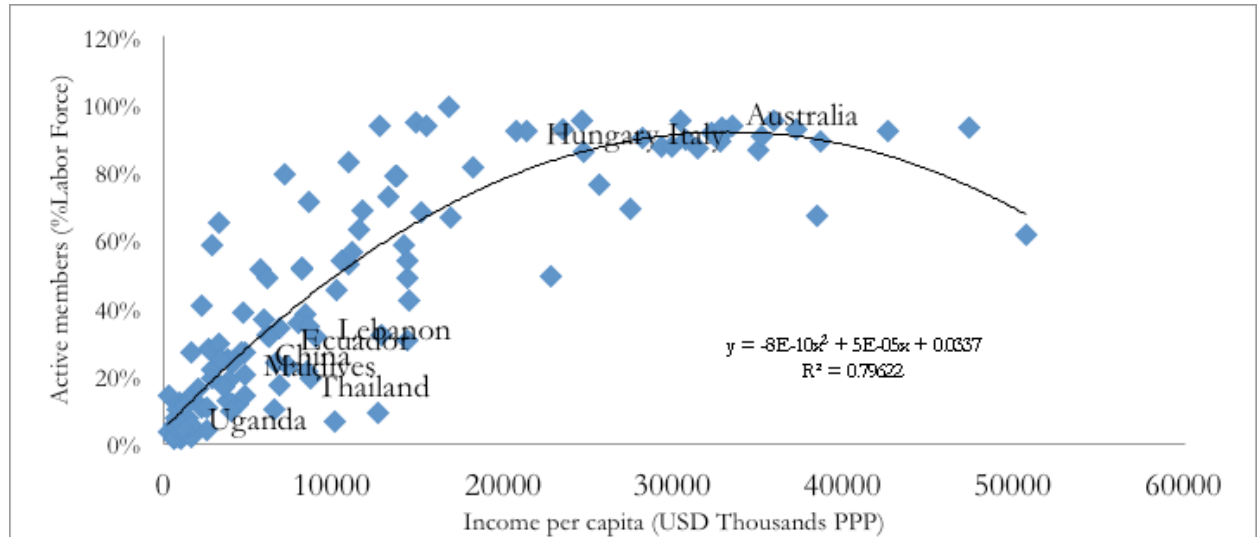
A. Building an Inclusive and Sustainable Pension System

(1) Current Status and Challenges

With China’s demographics, developing a wide-coverage but sustainable pension system will be one of its most pressing social challenges over coming decades. There is a large unfinished agenda, in part a product of the rapid pace of reform to date, but one which the authorities have begun clearly to address. The first element of the agenda is addressing historically low pension coverage among rural, migrant and urban informal sector workers. The second is reducing fragmentation across different subsystems of the pension and health insurance systems, both to promote more seamless protection and to facilitate labor mobility. The third relates to financial protection and ensuring sustainability of financial protection for those in existing pension systems. Finally, in the longer term, structural reforms of the pension system may be desirable to achieve the reform goals of the authorities.

(i) Expanding pension coverage

Until recently, China had pension coverage well below the typical level for a country of its income level (Figure 5.1). Low coverage has been driven by a few factors. The first was the absence of a national rural pension program. The second was the low participation rates of migrant workers in urban schemes. The third was the absence until mid-2011 of a pension scheme for urban residents, who comprise 30–40 percent of the urban labor force.

FIGURE 5.1 Pension coverage rate of active labor force, various countries, mid-2000s

Source: World Bank (2010). China coverage rate is for 2008.

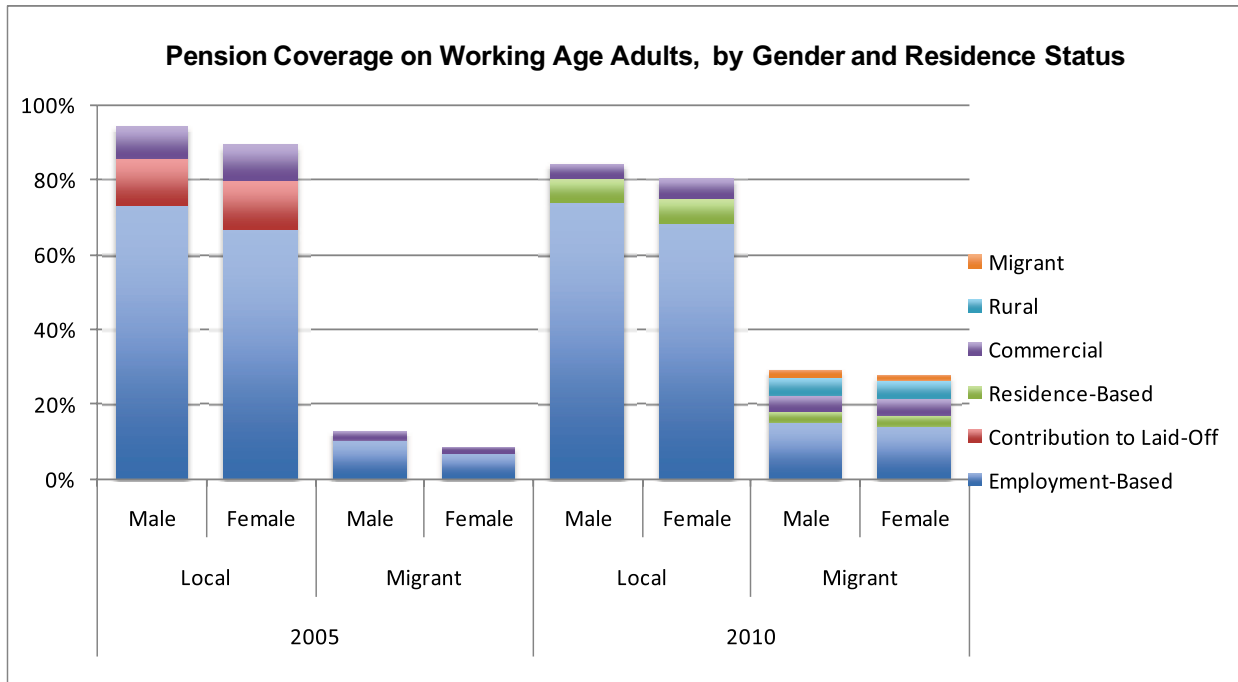
Looking at the urban system, participation rates in pension schemes of different types of workers remain very different between local and migrant workers despite recent progress. Reliable nationwide survey figures are not available, but the China Urban Labor Surveys (CULS) in 2005 and 2010 gives a reasonable picture from a selection of large cities. As seen in Figure 5.2, participation in the pension system among migrant workers roughly doubled between 2005 and 2010 but still remains only around one-quarter of migrants, far lower than the 80 percent participation among local workers. Part of the expansion among migrants is in schemes other than the core urban workers' pension scheme, including participation in rural schemes. Looking at determinants of participation in the urban workers' scheme, factors that positively affect the marginal probability of participating in the scheme include level of education (an additional year of school increase the chances around 4 percent and any post-secondary education by 7 percent) and age (older workers are more likely to participate). In contrast, controlling for other factors, migrants from other urban areas are 43 percent less likely to participate in the urban workers' scheme than local *hukou* workers, and rural-to-urban migrants are a further 26 percent less likely to participate than urban-to-urban migrants. While women are 5 percent less likely to participate, this effect disappears after controlling for the sector of employment, suggesting that it is occupational choice rather than gender *per se* that drives the gender gap in participation.¹²⁹

Pension coverage in rural areas has historically been very low (10–12 percent) but has increased dramatically since the 2009 national rural pension pilot reform (Figure 5.3). While China has experimented with rural pension reform since the 1980s, it had until the late 2000s failed to make significant inroads in expanding coverage, mainly due to the highly localized nature of schemes, fiscal constraints in many areas, lack of participation incentives for rural people, and weak implementation.¹³⁰ The introduction of the national pilot in 2009 brought an impressive increase in participation.

¹²⁹ See Giles, Park and Wang (forthcoming) on determinants of participation across different urban SI schemes, using CULSS 2005 and 2010 data. The paper also notes significant discrepancies in estimated participation of migrants in the urban pension scheme and other social insurance schemes (medical, unemployment, and work injury insurance) between official sources and between official and survey-based sources.

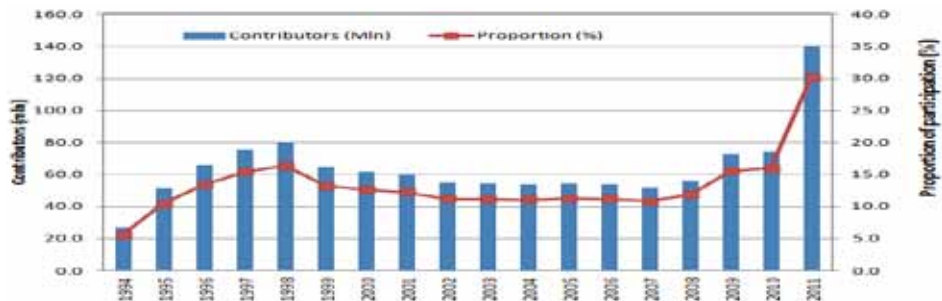
¹³⁰ Wu (2009); Lv (2005).

FIGURE 5.2 Pension coverage of working-age adults, by gender and residence status



Source: Giles, Park and Wang (forthcoming).

FIGURE 5.3 Rural pension participation, total contributors (mln) and as share of rural employed (%)



Source: MOHRSS, various years.

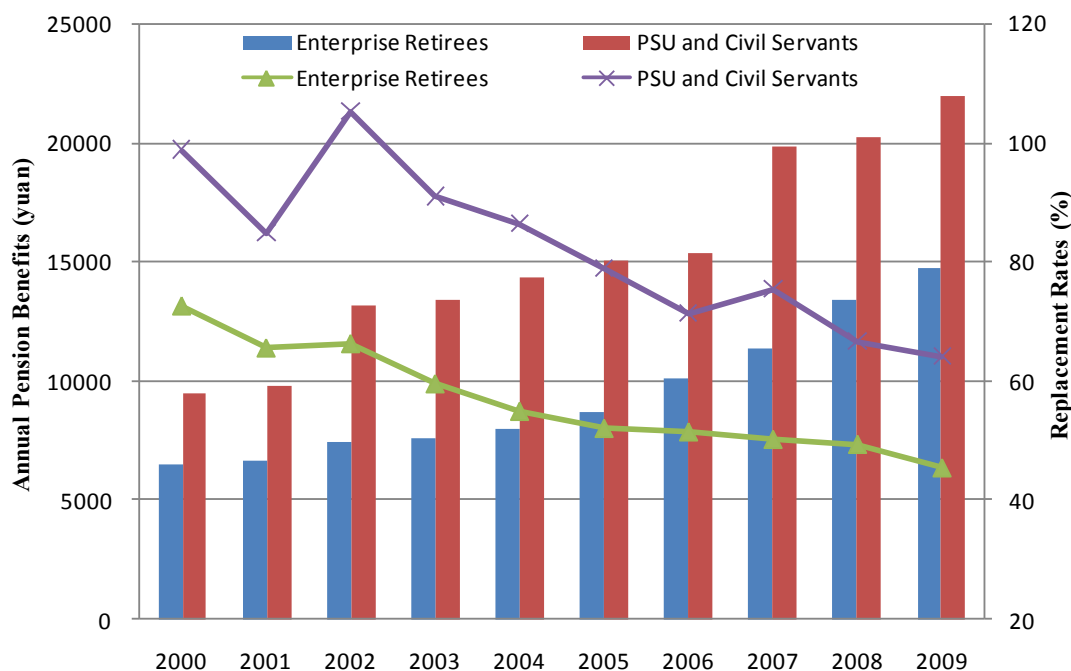
In response to historical under-coverage, China has moved rapidly since 2009 to include groups formerly outside the formal pension system. Historically, the major groups with low coverage have been farmers, migrant workers and the urban residents outside the formal sector schemes. In late 2009, China started rolling out a nationwide voluntary rural pension scheme which combines a matched contribution to an individual account with a basic flat pension benefit after retirement. The schemes are innovative efforts to incentivize participation through public subsidies. The central government plays an important role in financing the basic benefit fully for central and western provinces and half for coastal provinces. The broad design was replicated in mid-2011 for urban residents, with both rural and urban resident schemes aiming for full geographic coverage by end-2013. Both have a high public subsidy element, both during the accumulation phase through contribution matching and even more so through the payment

of basic benefit after retirement. Already the rural scheme has seen an increase of around 100 million contributors. The Social Insurance Law of 2011 and labor legislation in 2008 also place stronger obligations on urban employers to include migrants in urban workers' schemes, and there are indications of progress.

(ii) Financial protection and systemic risks to the urban system

Besides coverage, another key dimension of social security is the financial protection offered by schemes, which is an area of concern for pensions. While benefit levels in nominal terms have increased steadily in the urban schemes, replacement rates have fallen sharply in recent years (Figure 5.4), although from a high base by international standards. The replacement rate in PSU and civil servants schemes remains relatively high at over 60 percent, but the rate for regular workers has fallen toward the 40 percent threshold recommended by ILO as an adequate minimum, raising questions on the longer run financial protection from the scheme. These concerns are in part attributable to various design and implementation features, in particular the negative real rates of return on individual account (IA) accumulations (most of which are invested in bank deposits) and the prevalence of so-called "empty accounts" in many jurisdictions, whereby IA deposits have been used in earlier periods to fund liabilities to current pensioners. The system also faces the challenge of managing the substantial "legacy costs" of promises to previous generations of pensioners.¹³¹

FIGURE 5.4 Pension Benefits and Replacement Rates in Urban China



Sources: NBS, China Statistical Yearbook (2010), China Labor Statistical Yearbook (2010).

A number of structural challenges in design and implementation of urban pension systems risk undermining the system and impose significant inequities and labor market distortions. They include:

¹³¹In China, there have been several reforms of the pension system since opening up, resulting in different cohort benefit frameworks: the different groups are described as "old man," "middle man," and "new man" depending on their period of entry into the system. See World Bank (forthcoming).

- *Legacy costs of the earlier more generous urban workers' system*, which are largely financed through current pension contributions, sustaining high contribution rates and creating incentives for non-participation and inequities across generations of workers. Rough estimates of gross legacy costs range from 82 to 130 percent of 2008 GDP, depending on assumptions.¹³²
- *Design weaknesses which affect incentives and undermine fiscal sustainability*, such as the low retirement age. Earlier studies of the urban enterprise pension system substantiate the threats to sustainability. Long-term actuarial projections suggested a baseline financing gap (present value of projected yearly financial shortfalls) from 2002 to 2075 of 95 percent of China's GDP for 2001. The same projections suggested that there would be marginal system-wide cash surpluses between 2009 and 2018 then deficits thereafter, in spite of the maturation of "young men" with lower replacement rates.¹³³
- *Low returns on individual accounts*, which have meant that pension replacement rates have been significantly less than anticipated when the system was developed—a structural feature that cannot be removed so long as the bank deposit rate is mandated for IA accumulations. In effect, the already high pension contribution rate for urban workers is thus made even higher by a negative real rate of return on their individual account accumulations.
- *The multiplicity of urban pension schemes* for workers, PSU employees, civil servants, and in some areas residents and migrants. This creates "entitlement segmentation" in the labor market and barriers to cross-sectoral worker mobility, and it also results in non-transparent disparities in worker compensation across public and non-state sectors. The multiplicity of schemes is inconsistent with international trends towards consolidation of the pension policy framework across different categories of workers.
- *Major spatial fragmentation of urban systems and lack of portability of rights*, as discussed in Chapter 4. Lack of risk pooling and inter-urban resource transfers limit the insurance function of the urban pension system and increase spatial disparities in financial protection. While the recent portability regulation for the urban system is a step in the right direction, this will need considerable deepening of MIS and payment systems for transfer of information and funds to operationalize the policy. More broadly, similar guidelines do not yet exist for portability across rural, urban workers, PSU and urban residents' schemes. In terms of pooling, the stated goal of provincial pooling remains incomplete, with very partial pooling beyond the prefecture level in most provinces.

(2) Addressing the Challenges in Pensions Reform

The Chinese authorities have set sensible guiding principles for pension reform, but the parametric and structural reforms that will be needed will be challenging. In recent years, the Government has articulated principles for a reformed pension system. The principles call for an urban system that "has broad coverage, protects at the basic level, is multi-layered, and sustainable," while the principles for the rural system are "broad coverage, protects at the basic level, is flexible, and sustainable." Achieving expansion and integration of the pension system while trying to ensure adequate and sustainable benefits for all workers presents complex challenges which are likely to require structural and parametric reforms. The key challenge is how to manage the trade-offs and strike balances between the different objectives when they compete. Deepening pension reform is a long term agenda, with several stages:

¹³²The net costs could be lower, as financing for civil servant and PSU pensions already involves significant public subsidies. See World Bank (forthcoming).

¹³³See Yvonne Sin, *Ibid.* These estimates were done based on a sample of seven municipalities and need more representative and updated modeling, including due to the 2005 change in annuity factor for individual accounts.

In the short term:

The key challenge in the short term is ensuring suitable incentives for coverage expansion of pension to farmers, urban residents and migrants. The use of public subsidies in the new rural and urban resident schemes provides a significant incentive to participate. At the same time, the fact that the subsidy is largely “back-loaded” to the post-retirement phase through the basic benefit—and that the vesting period is only 15 years—raises questions on whether those under 45 years old will participate in the new schemes to a significant extent. Initial evidence from surveys in Chengdu and Guangdong suggests that participation rates in the new rural scheme among younger farmers are indeed considerably lower than those closer to retirement.¹³⁴ “Family binding”—whereby the parents of current workers can be covered in the rural and urban residents’ systems if their working children contribute—is one important incentive, but this is a transitional provision. In the medium term, the authorities may need to consider stronger incentives for those under 45 to contribute, such as for example higher ex ante matching on individual account contributions and/or some increase in the basic benefit for those who contribute for more than the minimum period.

For migrant workers, the incentive challenge in expanding pension participation is somewhat different. While recent data indicate notable improvement in the participation of migrant in the urban workers’ pension scheme, there is a three way challenge of coverage expansion. First, the majority of migrant workers still remain in the informal sector and ineligible for the urban residents’ scheme. Second, even for those in the formal sector, they may be reluctant to participate due to the distant benefits of pensions and uncertainty about their future location and ease of portability. Third, their employers may be reluctant to make pension contributions for migrant workers due to the added labor costs. For migrants who wish to return home, participation in their local rural scheme would make sense, pending fuller integration of rural and urban residents’ schemes. For migrants who intend to stay, a potential mechanism to address the first two issues in part would be linking social insurance contributions for migrants to registration permit and hukou reform (see Chapter 4) by requiring a minimum period of contributions for conversion.

In addition to coverage expansion, there is also a need to initiate reforms of the urban formal sector schemes in the short run. These include:

- **Initiating increase in the normal retirement age.** Given the need to do this gradually, initiating the increase in pensionable age sooner rather than later seems advisable. A caveat raised by some Chinese scholars is that the current cohort of older workers has lower skills and may struggle to remain productive and employable. This is a reasonable concern, but a gradual increase in normal retirement age, combined with availability of unemployment insurance and greater investments in mid-career training and lifelong learning, should mitigate the potential negative impacts on both older workers and overall productivity.
- **Defining a strategy to deal with legacy costs.** A sensible sequence of steps could be: (i) separating legacy costs from other pension costs; (ii) estimating the financial requirements required to deliver on legacy costs. This should be part of wider actuarial modeling of the pension system financial position; and (iii) agreeing on a financing strategy to meet legacy costs over the long term, using channels outside current pension revenues, such as government bonds and possibly resources from NSSF.
- **Taking preparatory design steps to integrate the PSU, civil servant and urban workers’ pension frameworks.** While five provinces have been designated as PSU pension reform locations, progress has been limited to date. Ultimately the PSU and civil servant sub-systems should aim to be fully integrated with the urban workers’ scheme and the first step in the

¹³⁴ Wang et al (2011) for Chengdu; Wang et al (forthcoming) for Guangdong.

short term is introducing contribution payments.¹³⁵ For some PSUs, this is already happening, but needs to be widened. For civil servants, this is more challenging, but countries such as India where new civil servants have been required to make contributions provide useful examples of how to manage such a transition to an integrated pension system. In both cases, the key design question would be how to integrate within the urban workers' scheme while avoiding a dramatic downward adjustment in replacement rates. This would in turn require integrated policy development of PSU and civil service pension reform with broader compensation reforms.

- **Completing provincial level pooling of pension funds.** Pooling contributions at provincial level will allow for greater equalization of pension within provinces, and also strengthen the insurance function. To date, pooling remains only partial in most provinces, despite policy commitment to achieving full pooling at the provincial level.
- **Putting in place the information systems to facilitate portability of pension rights and pooling.** At present, the information systems for pensions are highly fragmented, typically at the prefecture level, though efforts are underway towards common data standards within provinces and within the new rural and urban resident schemes. In the short run, it would be essential to set common data standards and data sharing protocols under the lead of MOHRSS and development a data management system strategy for phased convergence. There would also need to be integration of SI information systems within provinces to prepare the way for eventual sharing of beneficiary data and financial information across provinces.

In the medium term:

The key medium term challenge will be promoting greater harmonization across schemes and making progress on integration of schemes for different groups. As coverage expansion is achieved, reducing fragmentation of schemes across groups and across space will come to the fore. This will be important reforms for creating a pension system which more fully reflects and facilitates the increased mobility of workers. This would involve several elements:

- **Completing integration of PSU, civil servant and urban workers' schemes frameworks and management.** To move to a unified scheme for all formal workers, it will be necessary over time to integrate the policy framework and management for the civil servant, PSU, and urban workers' schemes. In terms of sequencing, integrating the PSU and urban workers' schemes is a sensible first step, with integration of civil servants schemes may require a longer phase-in period. For both PSU and civil servants, in order to avoid a sharp decline in replacement rates in an integrated system, it would be probably necessary to have supplementary occupational pension schemes which could top up pension benefit levels in the integrated urban formal sector schemes.
- **Integrating the rural and urban residents' schemes and their management.** Given the close policy harmonization between the schemes, integration of the rural scheme and urban residents should be somewhat more straightforward. In fact, a number of cities have already achieved this, e.g. Beijing, Shanghai, Zhongshan and Chengdu. The main practical challenge would be ensuring that information and financial transactions systems were sufficiently integrated across provinces and prefectures to allow for scheme integration to be effective on a wide-area basis as well as within jurisdictions.

¹³⁵ The global trend is towards greater integration of civil servant and general worker pension schemes, either through full integration or integration with supplementary "top-up" schemes for public sector workers. See Palacios and Whitehouse (2006).

The other main reforms in the medium term would build on preparatory steps taken earlier. These include:

- **Separating legacy cost financing using a clearly defined financing strategy outside the pension system.** Separating the financing of legacy costs from the current and future pension system would allow the authorities to reduce the contribution burden of the pension system on current and future workers. This could also help reduce possible resistance to raising of the retirement age. The legacy costs could be financed by the government at different levels and could also be shared with workers and retirees. The central government could establish a framework by which it finances a minimum level of acquired rights and the remainder could be financed by provinces and municipalities.
- **Raising the pooling level for the urban schemes to the national level.** This is a stated goal of national policy and would be a desirable reform on several fronts. The two biggest challenges in achieving integration of schemes and higher-level pooling will be agreeing on the rules for distribution of pooled contributions across space and putting in place the platform for exchange of beneficiary data and financial information to support the portability of entitlements. In terms of distribution of pooled revenues, one goal should be to reduce gradually the spatial disparities in pension benefits and across population groups. Progress on data sharing would require accelerated progress on the current efforts of MOHRSS to develop common data standards for data sharing nationally. Both are challenging from a technical standpoint and in terms of coordinating many players with different interests.
- **Taking steps to ensure sustainable financial protection of pensions.** This would require measures both for ensuring adequate rates of return during the accumulation phase and for appropriate indexation of pension benefits after retirement. For pensions after retirement, introducing more systematic indexation would be desirable. Price indexation protects the retiree against inflation but would most likely result in a decrease in pension benefits after retirement relative to wages. An alternative could be to mix prices with the increase in covered wages in the pension system.¹³⁶ To ensure adequate rates of return during the accumulation phase, ensuring a better rate of return than bank deposits would be vital. This could involve a more balanced investment approach for pension fund balances, or may in the longer run require consideration of an NDC approach with returns linked to GDP growth rates.

In the long term:

For the long term, it would be desirable to move to a system that distinguishes those with a formal employment relationship and those without one such as self-employed and informal workers. This would require unified pension systems for these two types of workers across rural and urban areas, breaking down the historical locational divide. Such a future system would be consistent with deepening rural-urban integration and *hukou* reform and would help address issues of portability. It could also benefit from the lessons of OECD economies that have distinct schemes for the self-employed.

In terms of implementation, in the long run there would need to be an integrated national data management system underpinning the nationally pooled and integrated system. This is a daunting task, but ultimately necessary. The real question is what model of integrated data management is feasible, both technically and politically. It need not be a fully centralized database, but could instead have distributed provincial systems with a data clearinghouse function at the national level, or a cloud-based system.

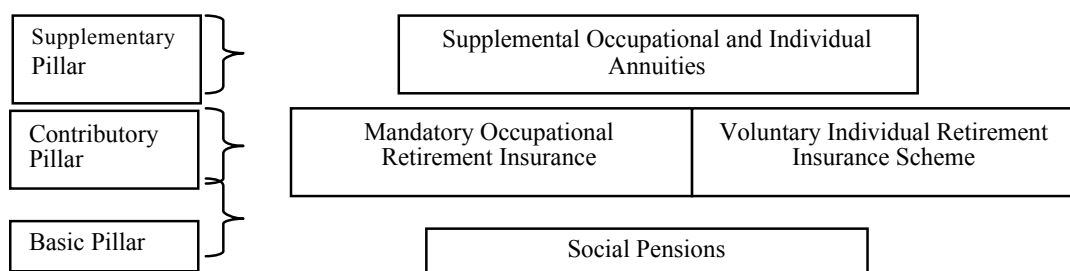
In addition to integration of pension schemes, the structure and mix of pension benefits would benefit from consideration. In order to balance financial protection, coverage expansion,

¹³⁶ See Piggott and Sane (2009) for a review of pension indexation principles.

and sustainability objectives, China should probably in the longer term consider moving the integrated schemes toward a three-pillar design consisting of (see Figure 5.5 below):

- *Basic benefit pillar* which provides minimum elderly poverty protection through an integrated non-contributory “social pension”. This would build on the basic benefit approach already being taken in the rural and urban residents’ pension schemes but would go a step further in removing the linkage to even the low level of contributions required in those schemes. The social pension—set at a modest level to ensure fiscal sustainability—could be financed from general revenues with a strong role for the central government but some sharing with sub-national levels. Depending on the extent of fiscal commitment and the desired level of social pension, it could also be subject to a pension test which would take account of pension income from other sources or some other form of means-testing (though a pensions test has the attraction of administrative simplicity). A key principle could be that the benefit would be set in a common way, and would provide minimum income support higher than the *dibao* threshold. Social pensions of different forms are widespread in OECD countries as a method both for ensuring universal coverage of elderly benefits and avoiding old age poverty.¹³⁷
- *Contributory pillar* with a mandatory defined contribution scheme for workers with wage incomes and a voluntary defined contribution pension savings scheme for the urban and rural population with non-wage incomes (e.g., temporary workers, the self-employed, and farmers). For workers with wage incomes, a notional defined contribution (NDC) approach to the defined contribution pillar could be considered. An NDC approach offers a number of attractive features in terms of labor market incentives and facilitation of labor mobility, potential for reduction in contribution rates, and a lesser requirement for retained savings in the pension system to support benefit payments. Importantly, it would also allow for providing a positive real rate of return to contributors without imposing undue risks on investments or as many regulatory demands on government. For those with non-wage incomes, continuing (and possibly increasing) government matching of contributions would provide strong incentives to participate in the voluntary contributory scheme. The scheme for those on non-wage incomes could be fully funded, preferably with a rate of return guaranteed by the central authorities to reduce the risk to contributors from empty accounts. A question to address in such a dual scheme is the risk of encouraging informality through the subsidy to non-wage income earners. One solution to this concern could be to provide incentives for low income formal sector workers as well, as has been introduced for example in Mexico and Colombia.
- *Supplementary pillar* for urban and rural residents providing voluntary occupational and personal pensions which may supplement other pension benefits. For most people and employers, this could be an entirely voluntary arrangement used as part of the non-wage compensation package. For civil servants and PSU workers, it would also be a vital part of a strategy to integrate them into the urban workers’ scheme without a sharp fall in replacement rates.

FIGURE 5.5 Potential Design of Long Term Pension System



¹³⁷ See Palacios and Sluchynskyy (2006), and Holzmann, Robalino and Takayama (2009) for overviews of the use of social pensions from OECD, middle and lower income countries.

B. Aged Care Services—Aging with Dignity

(1) Current Status and Challenges

While pensions are a crucial element of old age support, the rapidly aging population will also need a range of aged care and long-term care services, which are currently underdeveloped in China. Historically, aged care in China has been a primary responsibility of the family, and this is still the dominant approach culturally. At the same time, the state has provided for the poorest elderly people without other forms of support, who are known in rural areas as *wubao* people and in urban areas as the “three no’s.”¹³⁸ The *wubao* program covered just over 5.5 million people in 2011, and others often received benefits from the *dibao* program. However, with urbanization, the strains on children of the 4-2-1 family model, and rapid aging, there is a rapidly growing demand for a range of aged care services which traditional arrangements and the very targeted public programs are not well equipped to handle.

The policy framework for aged and long-term care services is yet to reflect adequately the demographic, policy, economic and social changes of recent years. China passed the Rights Protection Law for the Elderly in 1996 to guide and regulate rights on social security, aged welfare and services, health and education for the elderly. In 2006, ten line ministries including the National Aging Commission, NDRC and MOCA, jointly issued a policy document which defined the aged care service sector.¹³⁹ Family-based and community-based elderly care services were piloted in Beijing, Tianjing, Qingdao, Daliang, Xiamen, Shanghai and Changsha, and rolled out in more than 300 urban centers in 2009. Although the 1996 Law has played an important role in development of aged care services, it does not reflect China’s rapid economic, demographic, social and policy changes (e.g. expansion of the pension system). The 12th Plan also gives much more explicit attention to the issue of aged care services.

The multi-sectoral nature of aged and long-term care has posed institutional challenges to developing a coherent approach in China. Numerous ministries, levels of government, and non-state actors are involved in aged and long-term care, contributing to fragmentation in the overall approach. At the central government level, responsibility for policy cuts across the NDRC, Ministry of Civil Affairs (MOCA), Human Resources and Social Security (MOHRSS), Ministry of Health (MOH), and China National Commission on Aging (CNCA). At the sub-national level, provinces, municipalities, counties, and townships have responsibilities for designing, coordinating, and implementing aged and long-term care services, sometimes in collaboration with voluntary organizations.

The lack of well-developed coordination mechanisms limits the overall effectiveness of aged and long-term care initiatives. The effects of this are already visible. The lack of coordination has hampered the ability to: adequately assess unit costs of different types of aged care services; assess the most appropriate options for funding services; determine clear and transparent eligibility criteria for services; identify appropriate splits between purchasing and commissioning functions and the delivery of services; and establish systems for quality assurance of aged care services.¹⁴⁰

China also has a large deficit of appropriately trained personnel for provision of aged and long-term care services. In particular, social work education and practice are still in an embryonic state across China. Presently, around 250 institutions provide social work training with only 10,000 graduates per year, 60 percent of whom work in other professions

¹³⁸ *Wubao* refers to the five guarantees that such elderly people are meant to be provided: food, oil, and domestic fuel; livelihood necessities such as clothing and bedding, as well as spare money; basic housing; medical care; and funeral and burial services. Three no’s means no family support, no sources of income, and no work capacity.

¹³⁹ Suggestions on Accelerating the Development of Aged Care Service Industry, February 2006.

¹⁴⁰ See Joshua (2011).

upon graduation due to low pay and lack of career opportunities.¹⁴¹ The scarcity of work settings and places in which to train staff in the application of social work skills makes it difficult to build a strong workforce for social work, which could have implications for the quantity and quality of aged care provision. Beyond social work, there are large shortfalls in most other areas related to aged-care services, including professional carers, gerontologists and others.

Community-based LTC services have emerged in the context of the commercialization of state-owned enterprises but are generally fragmented and weak. In 2007, there were 31.4 million enterprise retirees under the system of “social management services.” These services aim to serve various social and health needs of the elderly but are often fragmented. In urban areas, community-based LTC services have begun to emerge. For example, the Beijing local government created a model called “four nearby solutions” which offers elderly people resources for studying, social activities, caregiving support, and opportunities to participate in community affairs. However, evaluations suggest that caregiving support functions in the community and at home are often ill-defined, suffer from weak coordination across different agencies and service providers, and have proven expensive to sustain.¹⁴² In addition, there is increasingly strong private sector interest in the high-end aged care industry in China.¹⁴³

The challenges in design and implementation of aged and long-term care services are not unique to China. Many advanced and emerging economies are further along the aging curve and have already undertaken reforms to address the needs that China is now confronting. They offer many relevant lessons and also point to quite diverse models of financing, provision, and regulation, which suggests that developing a model that is appropriate to China’s context and affordable will be challenging.¹⁴⁴

(2) Addressing the Challenge of Aged Care

Given the early stage of development of aged care services in China, the fundamental question for policymakers is what vision they have for the system. The experiences of OECD and transition countries show significant variation in how aged care services are provided, financed, and regulated, reflecting to a large extent differences in the underlying social and cultural norms of different countries. Major disparities can be seen both in the levels of spending on long-term care and in the structure of spending between public and private spending (Figure 5.6).¹⁴⁵ China will need to decide on an appropriate model of aged care services that reflects its broader social service vision, cultural preferences, and fiscal possibilities. This section therefore points to the priority issues and options that Chinese policymakers will need to consider over different timeframes rather than offering firm recommendations.

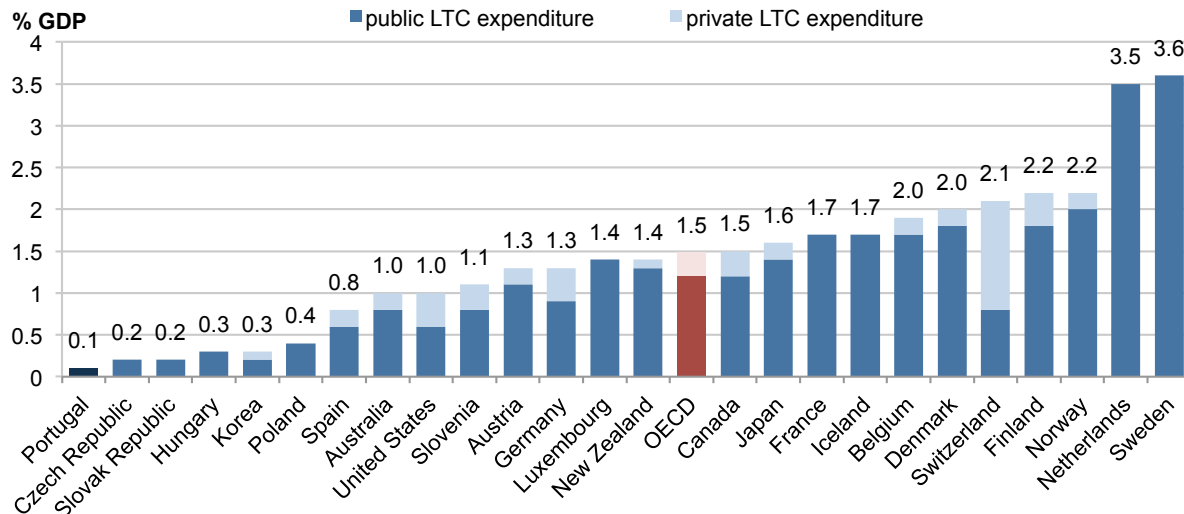
¹⁴¹MOCA in China Daily, November 11, 2011. http://www.chinadaily.com.cn/bizchina/2011-11/09/content_14065471.htm.

¹⁴²Cheng and Rosenberg (2009).

¹⁴³See for example the Retirement Communities World Asia 2011 Conference materials.

¹⁴⁴See Joshua (2011, vol. 2) for a review of OECD models of long-term care.

¹⁴⁵Long-term care is not the same as aged care services, which generally include a wider range of services, but long-term care tends to be the major funding need within aged care services.

FIGURE 5.6 Long-term care expenditures in OECD (% GDP 2008)

Source: OECD Health Data 2010.

In the short term:

The first issue is to develop the broad policy framework for aged care services. In doing so, a central issue is the mixture of public and private financing and provision. Given the pace of aging in China and the scale of unmet need, aged care services will clearly be an area where the state cannot “do it all”, and co-responsibility and plurality of provision—including the state, the non-state commercial and non-governmental sectors, communities, and households—will be essential. This is also likely to be consistent with Chinese cultural and family values. It will require thinking about combinations whereby the state both finances and provides services in some cases, finances but outsources provision in other cases, and neither finances nor provides in others. More specifically:

- Piloting different models of aged care services to gain deeper understanding of cost and quality issues, and to test different mixes of public, non-state and community-based and households provision and financing. There are already interesting experiments ongoing (e.g. in Hangzhou and Shanghai) and these can be expanded and carefully assessed to inform national policy development, as well as drawing lessons from relevant international experience.¹⁴⁶
- Placing particular focus on the financing model for aged care services. With respect to financing, in the short term, public resources are likely to remain constrained for aged care. OECD approaches on public financing of aged care vary considerably, from largely general revenue-financed models (e.g., in Scandinavia) to insurance-based approaches. For China, public financing is likely to continue to be from general revenues, but at much more modest levels than the countries with more generous general revenues-financed systems. In providing public funding, policymakers may experiment in the short term with a mixture of supply-side subsidies to providers and demand-side funding directly to households. An increasing number of OECD countries are providing demand-side subsidies to households and giving

¹⁴⁶For OECD practices, see OECD (2011). For experience of transition countries, see World Bank (2010).

households more choice in whether they provide care themselves or seek it from community-based or professional providers.¹⁴⁷ The role of family and informal care arrangements—including community-based care—is critical in this regard, and it is vital that public investments do not crowd out informal and community-based care arrangements. At a minimum, public financing should not aim to disadvantage those who choose to care for their elderly family members in home or community-based settings.

- In addition, public resources are likely to continue to be focused on the poor elderly in the short run. Again, practice in the OECD varies between universal access systems financed either from general revenues or insurance contributions (in much of Europe, Japan, and Korea), and means-tested systems (in the United States, United Kingdom, and Australia). China may need to consider a phased approach that focuses on the poorest initially, with better-off households self-financing higher-quality care. The challenge for the medium term will be deciding what is the role of public financing for the middle groups of the population who are neither very poor nor have adequate resources to fully self-finance care.
- Another key issue will be the institutional and coordination arrangements for the aged care services sector, given the number of public and private actors involved. MOCA has developed approaches in the 12th Plan, but elaboration of policy will benefit from a high-level coordination mechanism involving other players such as NDRC, MOH, MOHRSS, the National Commission on Aging, and others. Similarly, coordination mechanisms will increasingly be needed at the sub-national level to oversee, regulate, and administer the aged care services system and subsystems.
- Accelerated efforts to develop human resource capacity for the aged care sector are needed urgently. This has been recognized and efforts are expanding to train social workers and other professionals, including gerontologists, aged care nurses et al. In 2011, MOCA set a target of 2 million qualified social workers by end 2015 as part of coordinated efforts from 18 central agencies.¹⁴⁸ However, a complementary need will be addressing very low social worker pay and lack of career development prospects, due to which many who train as social workers do not practice. This is also an area where having a clear strategy on the interaction between formally trained personnel and the family and voluntary sector will be crucial.

In the medium to long term:

In the medium to long term, the reforms initiated in the 12th Plan period will need to be deepened and new approaches are also likely to be needed as aging accelerates. Some of the key incremental reforms include:

- Developing a regulatory framework for aged care services which encourages the entry of non-state providers (community-based, commercial, and not-for-profit) but also ensures that basic standards of care are met. This will first involve better assessment of demand for different services and what households are willing to provide themselves. Another important element will be establishing a suitable licensing and accreditation framework to ensure that providers meet basic standards of care.
- Experimenting with and potentially expanding long-term care insurance to help finance the growing need for services. A number of OECD countries, including Germany, Korea and Japan have introduced long-term care insurance as part of their national social insurance programs in recent years and these models may provide lessons for China. Given the existing high burden of SI contributions in China, the space for a dedicated LTC payroll contribution is likely only to be available as other contribution rates in areas such as pensions and housing are reduced over time. Such pilots should be complemented by a system of carers' allowances

¹⁴⁷ OECD (2011).

¹⁴⁸ China Daily, *ibid*.

for poor and possibly middle-income households who choose to care for dependent elderly members in the home or with the support of community-based organizations.

- Moving to integrated aged care and assisted living models which have a more differentiated range of services across the spectrum of needs and draw on the skills of service providers from a wider range of agencies.

C. Promoting a More Integrated Social Security System

(1) Current Status and Challenges

The impressive pace of expansion and reforms of China's social protection (SP) programs in China over the past two decades has created the second-generation challenge of promoting greater coherence in the SP system. Both within individual programs such as pensions and social assistance as well as across programs, new issues of compatibility have arisen as the SP system has expanded. These issues need to be addressed to develop a social protection system that is a coherent whole, not simply an accumulation of programs.¹⁴⁹ Greater coherence will need to be informed by a clear vision of the goals of the social protection system and the underlying social values those goals reflect.

(2) Addressing the Challenges

Greater SP system coherence will require balancing the desire for deepening security and protection of the poor with appropriate incentives for people to work and increase participation in formal sector employment. This is an agenda both within different parts of the SP system and across them. Some issues that the current system will need to navigate in the coming years to strike the appropriate balance between protection and incentives include:

Deepening reforms of the social assistance system can help better achieve its poverty alleviation and promotional objectives. The expansion of *dibao* in urban and rural areas to cover around 70 million beneficiaries has been impressive over the past decade. Consolidation of the program provides the opportunity to improve the program design and linkages further, including:

- One area for development is the relative impact of the program on the poor and the “near poor”. While the *dibao* program has performed well in excluding the non-poor, its design raises risks of “poverty traps” for households just above the *dibao* eligibility threshold. Eligible households have their incomes topped up to the *dibao* threshold and also receive non-cash benefits including exemptions or reductions on education fees, subsidized health insurance, and public housing and subsidized utilities. As a result, they may be better off than households just above the *dibao* threshold who are not entitled to such non-cash benefits but have only slightly higher incomes. This raises the risk that *dibao* households face high effective marginal tax rates of graduation from the program (and this incentives to welfare dependency) and that the near-poor will feel unfairly treated. Cities such as Beijing are trying to address this issue by allowing some subsidies on selected basic services for the near-poor, but such programs are not affordable for all localities. In the OECD, the problem is often addressed by tax credits or other preferred treatment of non-poor households with low incomes, but such options will not be possible for China in the foreseeable future while the large majority of households remain outside the personal income tax net.
- A second challenge will be developing a more systematic approach to determination of *dibao* eligibility thresholds and benefit levels. At present, both the method of determining and

¹⁴⁹ See World Bank Social Protection and Labor Strategy Paper (forthcoming) on the SP systems approach.

the levels of *dibao* thresholds vary enormously, reflecting the highly decentralized nature of implementation. While some diversity in threshold levels is appropriate, a more consistent method for setting thresholds would be desirable. MOCA has made progress in this direction, and assessment of emerging experience can inform future policy development.

- A third direction is promoting greater synergies between social assistance programs and the anti-poverty interventions in poor counties. Traditionally, areas-based anti-poverty programs have operated in parallel to household-based social welfare support. The Government's new rural poverty strategy points the way to greater convergence of social assistance, social services and anti-poverty programs over time (e.g. prioritizing *dibao* and near-poor households in training under anti-poverty programs).¹⁵⁰
- Over time, and in parallel with hukou reform and further labor market integration, greater convergence of rural and urban *dibao* programs would be expected, with the gap between rural and urban thresholds within prefectures and provinces likely to narrow.

Another challenge for social assistance programs is the interaction between *dibao* and the host of national and local welfare schemes for the poor, including *wubao*, temporary assistance, and residual programs for *tekun* households. The draft Social Assistance Law is a positive step in this direction in its effort to make *dibao* the “backbone” social assistance program. It will be important to avoid the mistakes of many OECD countries that have seen a gradual proliferation of social assistance and welfare programs which are often inconsistent in their objectives and create inefficiencies in program administration.

In both the pension and health insurance systems, the use of public subsidies to incentivize the expansion creates a future risk of disincentives for rural and urban informal sector workers to move into the formal sector, where they face high social contribution rates. This may in the long run both harm the economy (due to the lower productivity of informal sector employment) and workers themselves, who will continue to have worse working conditions. For the present, this risk seems worth taking in the interests of expanding coverage and promoting greater security for all workers, formal and informal. However, in the medium term, it may be necessary to look for ways to reduce the high marginal tax rates that informal sector workers face when moving into formal employment, due to the combined effect of loss of subsidy on their social insurance coverage and high social contribution rates. The experience of middle-income countries such as Mexico and Colombia which offer continued subsidies for low-income workers within formal social insurance systems may provide lessons for managing such challenges. More fundamentally, there may be a need to reconsider the balance between general revenues and social contributions in financing the social insurance benefits of all workers, both formal and informal.

Issues of coherence across social assistance and social insurance schemes will require closer attention in the medium term. One example is the consistency of coverage and treatment of elderly people across programs: with the expansion of basic pension benefits to rural and urban informal retirees in coming years, the interaction with measurement of household income for *dibao* needs to be examined closely. Currently, basic pension income is ignored in the *dibao* eligibility determination, but in the longer run it may be necessary to look more closely at the rationale for such an approach as the pension system expands.

Finally, given the dramatically increased imputed value of housing for urban households in recent years, the interaction of government policy on affordable housing and social assistance programs will need to be considered. The government has placed increased emphasis on affordable housing for lower-income households, in addition to public housing for the poor. While this is a welcome policy direction, it will also require more rigorous evaluation of the implicit value of social assistance packages that include free or subsidized public housing, and comparison of the value of the full *dibao* package with subsidies on offer to non-*dibao* households.

¹⁵⁰ Outline for Poverty Reduction and Development of China's Rural Areas (2011–2020).

The above issues are natural challenges to be expected in an SP system that has expanded so rapidly and that has such diversity across space. Advanced economies continue to struggle with such issues in their more mature social protection systems. Considering such issues in future policy development will be vital to ensuring that the dual goals of protecting the poor and ensuring fairness for all are appropriately balanced. The lessons—including the numerous failures—of OECD and MIC countries in balancing such considerations can be valuable, but the appropriate approach for China is also very dependent on its specific social, cultural, economic, and political values.

Annex 1 Illustrative Sequencing of Hukou and Supporting Reforms

Phases	Hukou Reform Policies	Supporting Reform Policies
1 st Phase	<ul style="list-style-type: none"> ● deepen and rigorously evaluate the local/provincial hukou reforms to inform national policy ● develop a national framework and national standards for residence permit system and indicators ● issue national guidelines and encourage prefecture cities to promote local hukou reform based on the national framework and guidelines ● pilot the national framework of residency permit system and prepare for scaling up ● start to establish a shared information system and platform from population registration and management 	<ul style="list-style-type: none"> ● roll out rural-urban integration programs based experiences learned from the national pilots in Chengdu and Chongqing ● implement specific plan for the equalization of basic public services and social welfare ● continue to increase the standards in rural areas to lower the gap to urban areas and harmonize key policies ● Increase real pooling level of social security system (pension at the provincial level, UI and HI at prefecture level) and issue social security card nationwide
2 nd Phase	<ul style="list-style-type: none"> ● adopt the residence permit system nationwide and national guidelines for hukou conversion indicators, standards ● universalize open hukou access for rural residents in all prefectures, and liberalize/standardize access standards for all intra-provincial migrants ● undertake costing and sensitivity analysis of net costs of basic local-level service provision for migrants by type of city and volumes of migrants ● deploy and roll out population information system 	<ul style="list-style-type: none"> ● continue to implement the equalization programs and pay more attention to lagging areas ● complete rural-urban integration of key social policies and programs (pension, health and health insurance, dibao programs) ● establish full coverage of social security system to provide basic social security, and upgrade pooling level of social security (pension and UI at national level, HI at provincial level) and establish national standards for dibao and social welfare programs
3 rd Phase	<ul style="list-style-type: none"> ● based on costing, agree fiscal sharing arrangements for provision of basic public services to migrants and implement national net-settlement system to incentivize open hukou access by all cities through an incentive-based approach rather than an "ordering" approach ● further lower thresholds and requirements for hukou conversion based on cost-sharing and financing by central and local governments 	<ul style="list-style-type: none"> ● incorporate hukou reform financing into budgetary management system and social economic plan ● make budgets for public services and social welfare based on the information of permanent residence population (>6 month) ● arrange special budget and establish an adjustment funds to compensate the net cost in receiving areas
4 th Phase	<ul style="list-style-type: none"> ● apply residence permit to all residents to restrict the function of the hukou system to population registration ● open accesses to all migrants 	<ul style="list-style-type: none"> ● establish a standardized budgetary approach based on the information of permanent residence population

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