

9. Living Standards: Incomes, Inequality and Poverty

The ultimate objective of economic growth is to improve the quality of life. Income growth provides a society the wherewithal to reduce poverty and risk, and increase consumption and leisure. But growth does not spread these benefits equally through the population. Instead, the relationships among income, inequality, and poverty are complex, and the very notion of quality of life can be difficult to define precisely. China exemplifies the complex relationship among these concepts. Household income has grown extremely rapidly in China since 1978, and individual Chinese are clearly much better off than they were twenty-five years ago. Moreover, the number of people in extreme poverty has declined dramatically. But over the same period, the distribution of income has become *much* more unequal. Income growth has been fastest among the best-positioned urban households in coastal regions, and slowest among rural households in the western and northern regions. Thus, Chinese society has become much better off, much less poor, but much more unequal. The deterioration in income equality implies that the living standards of tens of millions of low-income households improved less than they would have if the same growth had been spread more equally. Within China, an increasingly widespread perception holds that society is less equal than it used to be, and less fair than it should be. Since 2009, inequality (by official measures) has leveled off and may have begun to decline, but so far the improvement has been modest.

The basic trends in Chinese income, described in the previous paragraph, emerge clearly from nearly all the data available from China. There is no debate about these basic trends. However, more precise—and more fundamental—characterization of household income in China is challenging, and some topics are highly debated. In part, this is because, in any country, the data needed to accurately measure poverty, inequality and well-being are hard to collect. But even more important is the fact that some of the distinctive features of the Chinese economy—the large urban-rural gap, peculiarities in the nature of income, and changes in the composition of household income over the reform period—present challenges in both the collection and interpretation of data. The assessment of Chinese living standards in comparative perspective is particularly challenging and problematic. This chapter introduces the main issues and presents the current state of our knowledge.

A. Income Growth

Household income has grown rapidly in China. The repeat visitor to China can see with her own eyes the striking evidence of improved standards of clothing, eating, and housing. The best source of statistical data on this dramatic transformation comes from a large household survey that Chinese statisticians have carried out annually since

the late 1970s. Statisticians survey two separate large samples, one rural and one urban (defined as those holding urban residence permits, as discussed in Chapter 5). This chapter begins with an overview of what this source tells us about the growth of household income, because this is the basis for much of what we know, and don't know, about Chinese income trends. Table 9-1 shows data from the urban and rural household income series, converted into 2013 constant prices with the (official) consumer price index. According to this data, both rural and urban household incomes have grown extremely rapidly: both more than quintupled between 1978 and 2004. The general picture of rapid income growth in both rural and urban areas is surely accurate.

Table 9-1: Growth of Real Per Capita Household Income

	1978	1985	2003	2013
Rural Real Per Capita Net Household Income				
1. Constant 2013 Prices	(About 70C)	1,880	3,808	8,838
2. Average Annual Growth Rate	(About 15%)	4.1%	8.9%	
Urban Real Per Capita Disposable Income				
1. Constant 2013 Prices	2,197	3,524	11,305	28,955
2. Average Annual Growth Rate	7.0%	6.3%	9.1%	

Source: 2014 Statistical Abstract, p. 67

However, when we examine the data more closely, we see three rather different periods.

- During the early years of reform, from 1978 to 1985, rural incomes grew exceptionally rapidly, at about 15% per year. This extraordinary achievement was the result of the success of early agricultural reforms, which increased agricultural incomes and also freed family members to engage in non-agricultural occupations. Urban incomes grew at the respectable rate of 7% per year, allowing substantial catch-up of rural incomes. However, it must be acknowledged that our household income data for the late 1970s is much weaker than the data for later years (discussed below).
- The immediately following period, from 1985 through 2003, was a period of significantly slower growth of rural incomes. Urban incomes grew significantly more rapidly (6.3% per year) than rural incomes (4.1% per year). Both urban and rural incomes felt the brunt of state sector downsizing at the end of the 1990s.

- From 2003 through 2013, both urban and rural household income grew at rapid and almost identical rates (9.1% for urban and 8.9% for rural).

Thus, after the urban-rural gap reached its minimum in the mid-1980s, it proceeded to widen again for about twenty years. Only during the past decade has the gap stabilized, and even perhaps begun to shrink. This corresponds with the discussion in Chapter 5, and it is clearly evident in the data.

Unfortunately, these calculations of real income growth cannot be accepted at face value. The problem is that they are based on shoddy calculations of the rural consumer price index in the 1978 to 1985 period, which can be shown to be inaccurate. The real growth of rural incomes in this early period is clearly overstated. This is very unfortunate, because it is virtually certain that rural incomes *did* grow extremely rapidly during this period, and almost certainly faster than urban incomes. For now, we cannot reliably estimate the rate of growth. Therefore, the long-run growth of rural incomes is also somewhat overstated. Unless the National Statistical Bureau goes back and recalculates a reliable rural consumer price index, we will not know the actual magnitude.

There are other limitations to the official data. The household survey covers only rural residents and urban people with residence permits, so migrants and others with intermediate status are not covered at all.¹ There are also significant differences between urban and rural in the way income is measured, and differences over time in how in-kind incomes are evaluated. These problems limit comparability; overstate the growth rate of rural incomes in the earlier period, and may also somewhat overstate the growth of urban and rural incomes in other periods.² Yet despite these shortcomings, the picture of rapid income growth is robust. Moreover, the household surveys provide an extremely rich body of data that can be used to support further analysis and diverse efforts to go beyond the simple headline number of average income growth. In the following, two efforts that further develop the data from the household survey will be discussed, in the course of examining trends in poverty and inequality.

¹ Beginning in 2013-14, the National Bureau of Statistics has merged these two samples into a single nation-wide sample, which, for the first time includes rural-urban migrants. These new data are still being analyzed, and are not considered here.

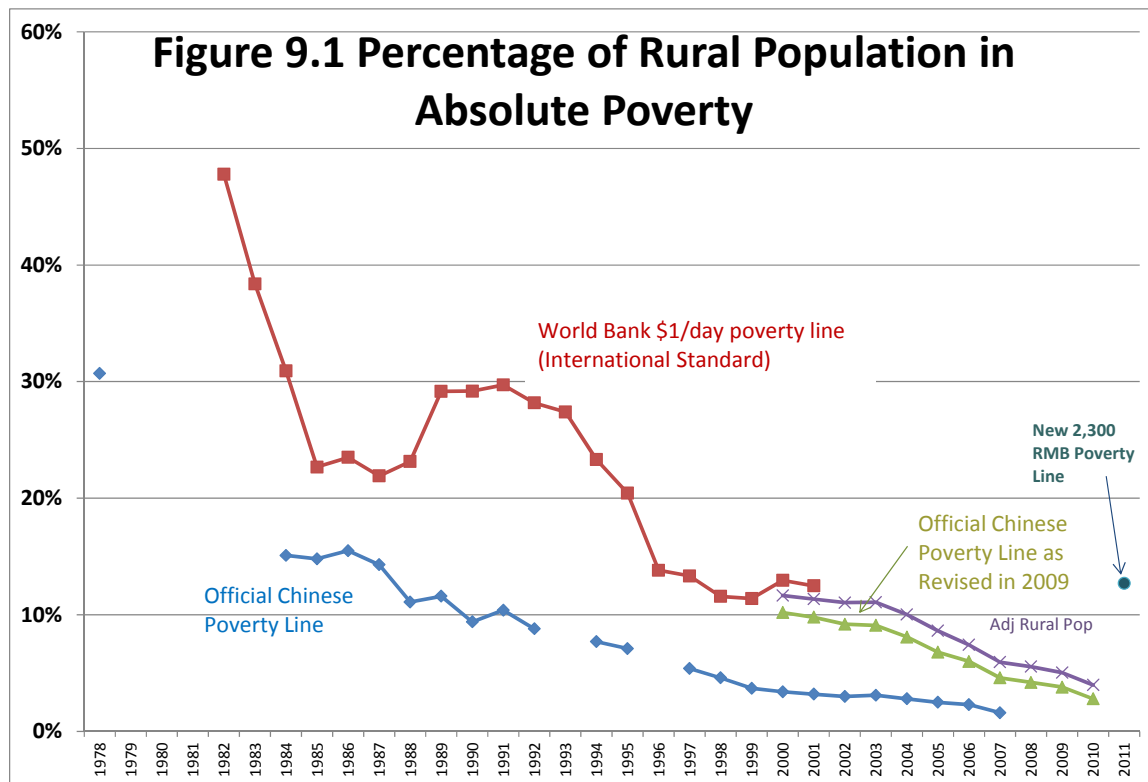
² For discussion of the data, see Bramall, Chris, "The Quality of China's Household Income Survey," *China Quarterly* No. 167 (2001), pp. 689-705; John Gibson, Jikun Huang and Scott Rozelle, "Improving Estimates of Inequality and Poverty from China's Household Income and Expenditure Survey," *Review of Income and Wealth*, 49:1 (March 2003), pp. 53-68; Park, Albert and Sangui Wang, "China's Poverty Statistics," *China Economic Review* 12 (2001), pp. 384-98; Ravallion, Martin and Shaohua Chen, "When Economic Reform is faster than Statistical Reform: Measuring and Explaining Income Inequality in Rural China," *Oxford Bulletin of Economics and Statistics*, 61 (February 1999), pp. 75-102.

B. Poverty

B1. Rural Poverty. Growth reduces poverty, and one of the great successes of China's economic reform has been a dramatic reduction in the number of people in poverty, especially in the early years of reform.

B1a. Official Poverty Line. Chinese data indicate that 250 million rural residents lived under the official poverty line in 1978, and that this number was cut in half by 1985. Possibly never before in history have such a large number of people climbed out of absolute poverty in such a short time. Poverty reduction slowed dramatically after the mid-1980s, but over time, sustained economic growth has continued to lower the number, and proportion, of people in absolute poverty. By 2006-7, Chinese official data showed the number of poor people falling below 20 million people, about 2% of the rural population. Using the official poverty line, virtually no urban dwellers are in poverty, so poverty is fundamentally a rural phenomenon. However, the Chinese official poverty line is very low, equal to 785 yuan per person per year in 2007. This line is considerably lower than the internationally comparable poverty line used by the World Bank, and discussed below. However, it is understandable that a poorer country would set a lower standard for poverty: indeed, this is a regular international pattern. The incidence of rural poverty according to the Chinese official poverty line is shown as the lower line in Figure 9-1.

B1b. World Bank Internationally Comparable Poverty Line. Ravallion and Chen (2004) make a broad revision of Chinese data to correct problems and make Chinese measures comparable to international standards. In the first place, The World Bank's standard is equal to the in-country equivalent of one US dollar per day, evaluated at purchasing power parity (PPP) [Subsequently adjusted for inflation to \$1.25 per day. See Text Box 6-1 for discussion of PPP]. According to Ravallion and Chen's calculations, this internationally comparable poverty standard equaled 850 yuan per person in the Chinese countryside in 2002, compared with the official line at 627 yuan. While the difference with the Chinese standard of 627 yuan might not at first seem to be large, it makes a huge difference in the evaluation of poverty today, because there are a very large number of people in the Chinese countryside very near those poverty thresholds. With the higher threshold, the percentage of rural residents in poverty jumps from 3.2% by the Chinese standard to 12.5%, and the total number jumps from 29 million to 114 million. Poverty is a much more serious and persistent problem in China today than one might suspect by using only the Chinese poverty standard. Moreover, the vulnerability of low income households has increased substantially over the reform period, as greater economic insecurity and reduced access to health care has made the position of the poor more precarious.



Moreover, Ravallion and Chen's re-calculations do not detract from the Chinese record in poverty reduction: rather, according to their standard, the total number of poor people is larger in all periods, and the number escaping from poverty is also larger. According to Ravallion and Chen's data, a large majority of Chinese farmers were below the \$1 per day poverty standard in the early 1980s; and over 400 million Chinese rural residents graduated from poverty, double the 220 million the Chinese claim officially.³ Ravallion and Chen's calculations are most accurate for the most recent periods, though, and they enable us to track the progress of poverty alleviation more closely. They show clearly that after the mid-1980s, poverty alleviation stalled, and the proportion in poverty actually increased through 1991. During the 1993-1996 period, there was again a period

³ In fact, Ravallion and Chen over-estimate Chinese poverty in the late 1970s, because they use the official price deflators, which, as discussed above, are inadequate for rural areas before 1985. Even the official Chinese poverty measure implicitly rejects the official deflators. The official poverty measure for 1978 could have been calculated in a logically consistent manner by adjusting today's poverty line downward by the intervening inflation rate (this is what Ravallion and Chen do). However, that would lead them to conclude that the poverty line in 1978 was 180 yuan per year. (Because the official deflators say there was not much inflation, it would only be necessary to deflate the poverty line a little bit.) But that would lead to a huge volume of poverty in 1978; furthermore, these statisticians remember the Chinese countryside in 1978, and they know that 180 yuan was in fact not particularly poor. Instead, they use an ad hoc poverty line of 100 yuan per person in 1978, which is actually a reasonable number. It results in a much smaller calculation of total poverty in 1978, and therefore smaller total numbers of those emerging from poverty in the early 1980s. Even with this cautious methodology, they achievement is impressive.

of dramatic progress. Since 1996, poverty alleviation has been much slower, and progress more limited. The Chinese official data, by contrast, show a suspiciously smooth process of poverty reduction, and the specific sub-periods do not emerge clearly from the data.

Chinese statisticians raised their poverty line in 2009, and then again, much more radically in 2010-11. Their new poverty standard, 3,200 yuan after 2010, was a 92% increase from their previous standard, and actually jumps above the traditional World Bank standard to equal about \$1.75 per person per day, at PPP prices (Li and Sicular 2014: 19-20). According to this standard, there is still a substantial poverty problem in China's countryside: 12.7% of the rural population, or 122 million people, are still in poverty.

B1c. Explaining Poverty Trends. What economic causes explain these patterns with respect to rural poverty alleviation? A number of factors can be cited. The spectacular decline in rural poverty in the early 1980s reflected the dramatic coming together of a number of one-time factors. The terms of trade of agriculture improved dramatically, as ultra-low procurement prices that had discriminated severely against farmers were raised; the supply of modern inputs to farmers increased dramatically; and the dissolution of collectives allowed farmers to work harder and allocate inputs into agriculture more efficiently. Land was initially distributed to households on a highly egalitarian basis, and virtually everyone got a share. Periodic redistribution of land in many areas of China means that there is a floor for intra-village poverty, and there are few landless laborers. Moreover, because poverty had been so pervasive in the pre-reform countryside, general economic growth was quite efficient in reducing poverty. The huge reduction in poverty in this initial period serves as an indirect measure of the extent of policy-created poverty under the previous economic policy regime. Most of these factors were exhausted by the mid-1980s, and the speed with which poverty was reduced slowed.

After the mid-1980s, poverty alleviation became much more difficult. The Chinese government recognized the problem and set up a special Leading Group for Poverty Reduction in 1986, directly under the State Council. The main achievement of this Leading Group was to designate a total of 328 impoverished counties that were eligible for special assistance. (The number of designated counties was increased to 592, or about 20% of all counties, in 1993.) Geographic targeting of designated poor counties has been the focus of China's anti-poverty strategy ever since. Appraisals of this program are mixed. Government funding was initially generous, but then stagnated until the late 1990s. Targeting is not particularly precise, because many of the residents of poor counties are not poor, and there are significant numbers of poor people outside poor counties. On the other hand, rigorous evaluation indicates that designation does raise

economic growth in poor counties, by around 1% annually (Park, Wang and Wu 2003). Inflation in the late 1980s eroded the agricultural terms of trade and reduced access to market goods by the poor. A second dramatic reduction in poverty came during the 1993-1996 period. Again, broad economic forces coincided to produce a significant impact on rural poverty. Agricultural terms of trade improved again, as marketization of rural procurement surged ahead, and government began to provide support prices for farmers. Most important, non-farm rural employment and migration surged during this period, opening up many new opportunities.

Growth has been highly concentrated in urban coastal areas. As a result, remote areas, particularly those with few resources and suffering from environmental degradation, have been little affected by growth. China's poor counties are especially common in a belt around the Aihui-Tengchong line (see Chapter 1), where dense population runs up against the limit of environmental sustainability. Farm prices fell in the late 1990s in the wake of market liberalization. Urban reforms reduced the over-manning of urban enterprises, creating urban unemployment and increasing labor market competition, thereby restricting the opportunities for impoverished rural households to send migrants to new jobs.

Since 2003, government policies have begun to effect rural living standards more broadly, and have also had a positive impact on reducing poverty. The cancelling of rural taxes and fees between 2003 and 2006 by themselves increased rural incomes by about 5%, with the impact on the lowest 20% of the income distribution proportionately much greater (Li and Sicular 2014: 24). New subsidies for grain growing raised income of farmers. Minimum living standard welfare payments were extended to over 50 million rural residents by 2010, and this had an impact on poverty, although the payments are set at a very low level. Most important, however, were the increased opportunities for migration. While migration may have begun from relatively well-off accessible regions, after the turn of the century, rural residents from poor regions were just as likely to emigrate as those from rich regions. As a result, emigration had a powerful impact in reducing poverty.

B2. Urban Poverty

Unlike most of the developing world, poverty in China has been largely a rural phenomenon. In the past, policy kept urban population low by restricting immigration, and then guaranteed everyone a public sector job (See Chapters 5 and 8). Since China's opening, most economic growth has occurred in the cities. Traditionally, urban inhabitants enjoyed stable social welfare conditions and extensive government subsidies of basic needs. Today, while this cushion of assured benefits is eroding, there are still very few permanent urban residents (those with urban residence permits) with incomes

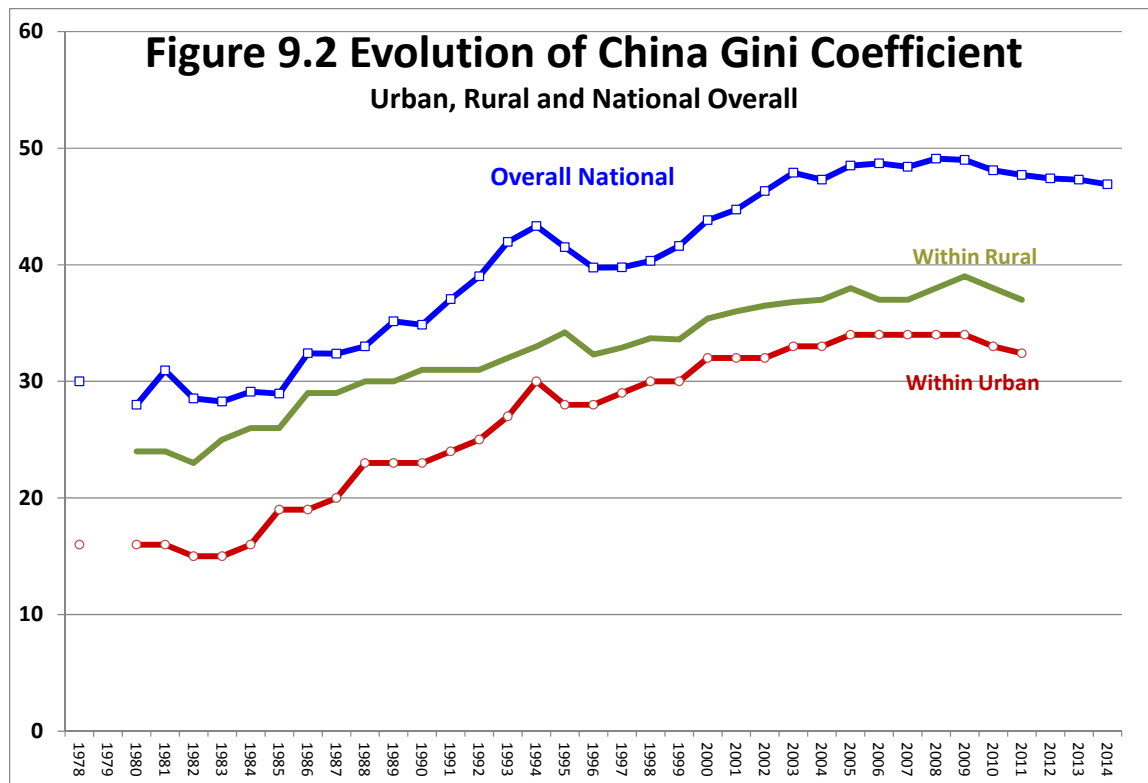
below the poverty line. Ravallion and Chen find that in 2002 the cost-of-living in the city was 41% higher than in the countryside; based on this calculation they adopt a poverty line of 1200 yuan per person per year in the city. Even with this higher threshold, they find that only 0.5% of the urban population was in poverty in 2001. Li and Sicular (2014: 21) find that, using the World Bank \$1.25/day poverty line, only 0.44% of urban residents were in poverty in 2007. While cities are becoming less equal, and unemployment and disability can result in serious economic hardship, very few permanent urban residents are in absolute poverty. Surprisingly, the share of migrants under the poverty line is actually lower, only 0.17%. This is probably because migrants are in the city to work, and are overwhelmingly of working age and physically healthy enough to work. With almost all migrants working, almost none are in poverty. By comparison, some urban dwellers are elderly or infirm, and in the absence of state support, fall into poverty.

C. Inequality

Under the socialist economy, Chinese society was dualistic, but egalitarian. That is: Although the gap between urban and rural residents was large (society was “dualistic”), incomes were fairly equal within each of the urban and rural sectors (“egalitarian”). At first, rural reforms in the late 1970s and early 1980s narrowed the urban-rural gap. The result was that China became less dualistic, at a time it was still highly egalitarian in both its urban and rural sectors. The result was that around 1983-84, China was probably the most equal that it has ever been, even more equal than under socialism. As Figure 9-2 shows, China’s overall Gini coefficient in 1983, measured on income, was 0.28, which made China one of the most equal countries in the world, comparable to Japan (0.25 in 1993) and Germany (0.28 in 2000). China’s urban society was especially equal, with an intra-urban Gini of only 0.166.

It is worth emphasizing how unusual it was that China at that time had a low Gini coefficient. Generally speaking, big countries have higher Gini coefficients (since they contain a greater diversity of natural endowments), and China is certainly big. Moreover, lower and middle income economies typically have higher Gini coefficients than developed, high income countries, and China was certainly a lower income economy in 1983. Comparable levels of equality are seen in the small former socialist states, but most of those are very small, and have much higher income than China in 1983. For a big, developing country, China had an exceptionally equal society. The figure for urban China was especially unusual, since in most developing countries, cities are more unequal than the countryside.

Since the early 1980s, though, inequality in China has increased steadily and inexorably. As Figure 9-2 shows, inequality has climbed steadily within both rural and urban areas. (The vertical axis on Figure 9.2 shows Gini coefficient X 100). Total national inequality is higher than either rural or urban inequality in every year, because the urban-rural gap is large. Moreover, total inequality has increased even more than urban or rural inequality, because the urban rural gap actually widened, especially after 1997. By 2008-9, China's overall Gini coefficient had increased to .49. The speed and size of China's increase in inequality is unprecedented. China is now more unequal than the average middle income country, and about as unequal as the average low income country. China does not yet approach the extreme inequality characteristic of, say, Brazil (.547, although this has been declining due to aggressive welfare programs). However, China is now significantly more unequal than some of the most important Asian developing countries. For example, India's Gini is .339; Indonesia's is .381; and Korea, at significantly higher levels of income, is .32. China is now less equal than other Asian developing countries that have long been considered fairly unequal, such as Thailand, 0.43, or the Philippines, 0.46, or even than Mexico at .472. (all Ginis except China from the latest World Development Indicators consulted November 2013). Current Chinese levels of inequality, as measured by the Gini coefficient, are near the middle of the range of developing economies, if assessed in light of China's size and geographical diversity. But this is a dramatic change from China's past record, and there may be no other case where a society's income distribution has deteriorated so much, so fast. As a side note, China's Gini coefficient has surpassed that of the US, which has also been rising, and which equaled .408 in 2010. Thus, in the course of two decades, China has gone from being one of the most egalitarian societies, about as equal as Japan, to being more unequal than the United States. However, as Figure 9.2 shows, since 2008-9, official data show China's Gini declining somewhat, reaching .469 in 2014. This would be a welcome development.



What economic causes lay behind the dramatic changes in income distribution in China? Many factors contribute. The most important single factor in Chinese inequality is the urban-rural gap. As we have seen, in Chapter 5, socialist institutions reinforced the urban-rural divide and in this respect contributed to inequality. Market reforms at first shrank this gap, because they benefited rural residents first. But ultimately market reforms contributed to inequality, because they led to the acceleration of urban economic growth. It is sometimes argued that the economic development process inevitably leads to a medium-term increase in inequality. Simon Kuznets, a pioneering scholar of economic development, argued that inequality would increase during the initial stage of development, but decrease in subsequent stages. Kuznets' logic was that pockets of modern economic growth would first generate high incomes in a few limited areas, while most of the traditional economy remained low income; but that later growth would ripple out to most of the economy. The first phase of this prediction certainly seems to be true in China, amplified by three factors: China's huge size and geographic diversity, which limits spillovers; the catalytic role played by foreign trade and investment, which naturally concentrates in coastal cities; and the legacy of socialist institutions. The result has been increased inequality as high incomes are concentrated in fast-growing coastal cities.

Inequality has also increased within each of the urban and rural sectors. In the urban economy, returns to various kinds of capital have increased dramatically. Before reform, nobody possessed any income-generating capital, so equality was high. After reform, urban residents have increasingly been differentiated between those who possess the capital, skills, and opportunities to benefit from the new economy; and those who do not possess the requisite capital and skills. Returns to human capital, as discussed in Chapter 8, have increased substantially, and human capital is relatively unequally distributed. Moreover, some urban residents have been stuck in declining segments of the economy, and have experienced reductions in income. The ability of well positioned individuals to take advantage of opportunities generated by market distortions, including corruption and privileged access to opportunities, must also contribute to urban inequality. Within rural areas, the most dis-equalizing part of income has been the wage and profit opportunities created by township and village enterprises, and by individual entrepreneurship. As such opportunities spread through the countryside, they were at first highly concentrated in suburban areas (Chapter 10), and thus made the overall countryside more unequal.

Has China turned a corner, and will inequality in China now start to decline? Will market forces begin to reduce inequality as growth spread and distortions and barriers are reduced? Will the development process ultimately lead to a reduction of the urban-rural gap, as the countryside is transformed by technological change and out-migration? Will political and legal reforms make China more fair and more predictable, and, by reducing special privileges, ultimately make China more equal? What will the role of property income be in an increasingly capitalistic society? These unanswered questions depend on complex social trends. Their outcomes will affect the future evolution of the Gini coefficient, which may serve as an early indicator of the direction in which Chinese society is moving.

From a broad structural economic viewpoint, it is certainly plausible that China is reaching a stage at which inequality will decline. The “Lewis turning point” implies that certain favorable dynamics begin to affect the level of inequality. According to the Lewis model, wages (and living standards) will not improve in the early stages of development, indeed not until the initial labor surplus is absorbed. Only gradually will expanding industrial and urban sectors absorb the rural surplus. But once this happens, wages for unskilled workers may begin to increase rapidly. Fei and Ranis, in the 1970s, studying Taiwan, discern a “Lewis Turning Point” when the “surplus” was finally drained and wages started to rise quickly. The same thing may have begun in China around 2004. In any case, since 2007, most data show the wages of unskilled migrants

rising more quickly than the average wage of fully-vested urban workers. In itself, such trends are likely to reduce inequality.

At the same time, Chinese government policies have become much more concerned with population well-being. New programs of medical insurance and modest retirement funds have been rolled out in the countryside. Policy seeks to raise rural incomes by (a) lowering taxes; (b) directly subsidizing grain farmers; (c) increasing welfare payments; and (d) keeping farm prices high. Cumulatively, these policies may have an affect in lowering inequality. Economic structural forces and government policy combined give some hope that China's inequality may have plateaued around 2008-9, and may now be heading downward.

C1. Accounting for All Income Sources

The discussion of income inequality in the preceding section still suffers from some important limitations. Urban dwellers receive additional income as benefits or subsidized services that are not well captured by the existing measures of (mostly cash) income. Rural residents also receive non-cash income, but the forms of this income are completely different from those in urban areas, and both were different under the planned economy than we would expect in a market economy. An ambitious collaboration between Western scholars and the Chinese National Statistical Bureau has made an effort, over many years, to account more broadly for all important sources of income for urban and rural residents. This international team carried out a series of supplemental surveys, in conjunction with the normal household survey, in three benchmark years—1988, 1995, and 2002—in a large and fairly representative sub-sample of China's provinces. The results from this important analysis show China moving along a rather different transition path. However, remarkably, the end point is completely consistent with that produced by the other methodology. This method produces a Gini coefficient of .45 in 2002, which is identical to the Gini calculated by Chen and Ravallion for 2001 (Khan and Riskin 1992, 1998, 2005).

In the analysis of Khan and Riskin (KR), China started out in the 1980s considerably less egalitarian than portrayed by the conventional statistics. This was primarily because urban dwellers received substantial benefits. Complete accounting for urban incomes raised them by 55%. Urban dwellers enjoyed large subsidy income, especially for the implicit value of ration coupons that were provided them free of charge. They also benefited from significant housing subsidies, since most paid extremely low rents while living in work unit-supplied housing. Surprisingly, though, a complete accounting of rural incomes raised them, too, by almost 40%, mostly because of the

imputed value of owner-occupied housing, and because of the re-evaluation of home-grown food at market prices (instead of procurement prices). KR computed an overall national Gini coefficient of .38 in 1988, significantly above the Chen and Ravallion (CR) estimate of .33.

Subsequently, however, KR's national Gini climbed less quickly than CR's Gini through 1995, and then leveled off, while the CR Gini continue to climb. By 2002, the two calculations were identical. What accounts for this difference in trends? The difference is that KR found that most hidden urban subsidies had by 1995 either been eliminated or converted into explicit form. Ration coupons had been abolished, and subsidized housing had been privatized. By 2002, urban comprehensive income was now just 29% higher than money income, while the estimate for rural households was that comprehensive income was now 33% above money income. Since the difference between urban and rural is practically unchanged by the inclusion of non-cash income, KR's method of calculation now yields a result very similar to CR's most standard computation. Both methods end up with a very similar picture of China's condition as of 2002.

KR's analysis is extremely useful. It is true that in most countries, imputed income from owner-occupied housing, for example, is not included in calculations of income distribution. CR's results are perhaps more appropriate to use in cross-national comparisons. However, KR's results give us a better sense of the overall evolution of all the different components of income. KR's results provide grounds for a slightly more optimistic portrayal of Chinese income distribution, in which inequality may have reached a peak in the mid-1990s, and leveled off since (though this would need much more corroboration before it could be widely accepted.) Moreover, KR remind us that accounting for income growth in China is tricky, because such a large part of comprehensive income was once received as subsidies, in non-cash form, especially in cities. Failing to account for this causes us to over-state the growth of income.

D. Physical Quality of Life Indicators

Given some of the complexities with the income data discussed in this chapter, it is worthwhile to look at other indicators of living standards, in particular those that directly reflect the health, physical security, and well-being of the population. So-called Physical Quality of Life Indicators (PQLI) provide another look at living standards and a way to compare China with other countries. Economic growth, particularly in the early stages of development, is strongly correlated with improvement in PQLI. Moreover, PQLI arguably provide a more direct measure of improvements in the quality of life.

D1. Life Expectancy at Birth

Of the various constituents of PQLI, perhaps the most important is life expectancy at birth. Life expectancy summarizes the impact of health and nutrition on the human organism. Life expectancy provides information about the net impact of environmental hazards (usually byproducts of an industrializing society), compared with other kinds of health hazards more characteristic of underdevelopment.⁴ China's life expectancy is relatively high. While China's population censuses provide abundant data, they need to be carefully adjusted to properly account for hidden births (Chapter 7). Cai (2013) did this for the 2010 census and shows life expectancy at birth of 74.1 for men and 77.4 for women. This is about the same as Latin America as a whole, which has a much higher income per capita, but less than developed countries where life expectancy averages 78.

The steady improvement in life expectancy is encouraging because during the period of rapid economic growth over the past 20 years, there has been an erosion of institutions supporting health, nutrition of the poorest, and the social role of women. The life expectancy statistics indicate that, on balance, the positive impact of economic growth has been larger than the negative effect of eroding social security institutions. Nonetheless, improvement of life expectancy has been much less rapid than income growth. Life spans have grown virtually everywhere in the world—except in the countries affected most severely by AIDS—and China's performance is not exceptional. Indeed, 25 years ago, China had unusually impressive life expectancy data compared to its low income. More recently, income has “caught up” with life expectancy, and China looks more like a normal country, albeit one that still has a relatively good life expectancy.

D2. Other Health Related Indicators

Closely related to life expectancy are other health-related indicators. Infant mortality (death of child during first year of life) is low in China, at 30 per thousand in 2003. That equals the middle-income country average, about the same as Brazil, but not as good as Mexico's 23. China's infant mortality rate may also be understated by the omission of some birth reports. However, the percentage of infants with low birthweight is reported as only 6%, which would be near developed country levels, and which supports the picture of a relatively healthy birth environment. Also important are changes in the nature of mortality. In the early stages of development, infectious diseases take a heavy toll on children and adults alike, and account for the majority of deaths.

⁴ Moreover, in the calculation of an *average* life expectancy, each individual counts equally as a single unit. When we track changes in income, using them as a proxy for changes in well-being, the welfare of high income individuals is implicitly being counted more than low income individuals.

However, these sources of mortality can be *relatively* easily reduced, by moderate investments in sanitation and preventive health-care. China has already passed this initial hurdle: 85% of children are immunized against the main childhood diseases. Today, China faces challenges relating to the “second health revolution.” The primary causes of death are similar to those in developed countries. The most important are heart disease, cancer, and lung diseases. These are not simple communicable diseases; but are instead often chronic diseases related to population aging and lifestyle issues. Environmental pollution plays a role, as does cigarette smoking. Sexually-transmitted diseases, including AIDS, have emerged as significant health care problems.

D3. Education

Another important PQLI is education. Literacy rates in China are quite high, calculated at 91% of the adult population in 2003. This is slightly above the middle income country average of 90%, and compares favorably with Brazil’s 88%. Rates of illiteracy are significantly related to age: while 12% is the average rate of illiteracy, more than 70% of those over age 68 are illiterate, while only 5% of those 21-25 years old are. Even at these rates, there are 145 million illiterate adults in China. The literacy data tell us something about China’s relatively strong performance on PQLI indicators. For three decades under the socialist system, China followed a development strategy that included substantial attention to so-called “basic needs.” That is, along with the stress on industrialization, there was also a stress on provision of basic health and education services to the population. To a certain extent, that legacy remains. The more our indicators measure *basic* level indicators, the better they look. Basic health care, control of infectious diseases, literacy, and basic education: all these indicators appear quite good. Higher level indicators, while often good, rarely achieve such impressive comparative levels.

D4. Human Development Index

One important effort to summarize a large number of PQLI indicators is represented by the United Nations Development Program (UNDP)’s Human Development Index. The Human Development Index, or HDI, has been computed for a large number of countries, and reflects a weighted average of life expectancy, literacy and school enrollment, and price-adjusted (PPP-purchasing power parity) GDP per capita. Conveniently, the UNDP has also sponsored a series of China Human Development Reports, which give the same information for China’s provinces (Shown in Table 9.2). This is convenient because it provides us with a way to compare China’s provinces with each other and also with other developing countries. What emerges first from this exercise is that there is significant variation among China’s provinces. The most well-off provinces are the municipalities of Beijing and Shanghai, while the least well-off is Tibet, with Guizhou the least well-off

within the populous eastern half of China. Of course, much of the ranking reflects the urban-rural gap (See Chapter 5), and the relative proportion of urban residents in each province.

The municipalities of Beijing and Shanghai already rank with countries of very high overall human development, roughly comparable to Korea, Poland or Chile. Yunnan, Guizhou and Tibet are similar in overall human development to India. A large number of provinces are clustered near the China average, which has a level of human development similar to Egypt or Indonesia. From these comparisons, it is evident that China faces continuing developmental challenges. At the same time, China's HDI ranking has improved remarkably rapidly over the past thirty-three years. By this comparison, between 1980 and 2013, China has moved from a level of human development below that of Pakistan or Haiti, to a level just barely below the middle-income economies of Brazil, Thailand, and Turkey.

Table 9.2: Comparison of Human Development Index 2010

Chinese Provinces		Nations	
Very High Human Development			
		Norway	0.94
		United States	0.91
		Hong Kong	0.88
Beijing	0.82	Korea	0.88
Shanghai	0.81	Poland	0.83
		Chile	0.81
High Human Development			
Tianjin	0.79	Malaysia	0.77
		Mexico	0.75
Guangdong, Liaoning	.73-.75	Brazil	0.74
Zhejiang, Jiangsu		Turkey	0.74
Inner Mongolia, Shandong, Jilin	0.72	Thailand	0.72
Fujian, Heilongjiang	.70-.71	China 2013	0.72
Medium Human Development			
Hubei, Shaanxi, Shanxi, Hebei	0.69-0.70	Egypt	0.68
Chongqing		China 2010	0.68
Hunan, Hainan, Henan, Ningxia	0.67-0.68	Indonesia	0.67
Xinjiang			
Sichuan, Jiangxi, Anhui, Guangxi	0.66	Philippines	0.65
Qinghai	0.64	Vietnam	0.63
Gansu	0.63		
Yunnan	0.61	Guatemala, Honduras	0.61
Guizhou	0.60	China 2000	0.59
		China 1990	0.49
Tibet	0.57	India	0.57
Low Human Development			
		Pakistan	0.53
		Haiti	0.46
		China 1980	0.40

Source: UNDP 2014, Table 2 (Pp. 164-166; UNDP & China Development Research Foundation 2013, pp. 110-1.

E. Conclusion

No single indicator can tell us how much economic growth in China has contributed to well-being. However, the combination of many indicators allows us to draw a reasonably accurate picture, and to place China in the context of other developing countries. China's GDP per capita (at exchange rates) ranks China right in the middle of the middle income countries. In fact, measures of well-being in China look considerably better than we would expect from such a characterization. Some part of this adjustment is due to the impact of China's price system and exchange rate: a shift to PPP-evaluated GDP per capita reduces some of the gap between GDP per capita and the other outcomes we see, such as the HDI. It should be noted, though, that while China's PPP adjustment is relatively large, it is not completely out of line with other developing countries. The adjustment is much larger than that for, say, El Salvador, but less than that for India.

Even after the shift to PPP-adjusted GDP per capita, China's performance looks relatively good. China's HDI is similar to middle income countries—Turkey and Brazil—that have about fifty percent higher PPP GDP levels. Undoubtedly, some of this difference reflects the legacy of China's relatively egalitarian, socialist past. Basic health and education diffused through the countryside thirty years ago has a continuing impact on population well-being today. Trends in inequality over the past twenty years, though, tell us that China will no longer reap benefits from these past policies. Future improvements in the quality of life will depend more on the way that growth policies are crafted to spread the benefits of growth as widely as possible to the whole society.

REFERENCES

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