
People's Republic of China: Economic Performance and Prospects

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Abstract. *The economic reforms of the People's Republic of China (PRC) have led to a switch from negative to large positive total factor productivity growth when Chinese GDP is recalculated using market rather than state-set prices. The reforms have also led to a substantial but less than complete correction of distortions in the structure of GDP, particularly the overemphasis on the producers goods industry during the pre-reform years. The reform process itself proceeded along a dual track of developing new systems without first reforming old systems. Political resistance to reform made this approach necessary, but it also had a number of adverse effects. Markets performed well in some sectors such as agriculture and small-scale industry, but poorly in such key sectors as finance. The partial nature of reforms thus led to an economy subject to strong cyclical savings. Reform in the earlier years was accompanied by declining inequality in the rural areas, but this decline soon reversed itself, and inequality began rising markedly in the rural areas. Because urban inequality rose from the beginning of the reform, overall inequality has risen substantially, although the number of absolute poor has fallen steadily. Regional and rural-urban inequality have resulted in large migration within the PRC, posing a broadbased challenge to government reformers.*

The end of the 20th century is a good time to take stock of the growth performance of the economy of the People's Republic of China (PRC). It has been almost half a century since the Chinese Communist Party took over the government of a unified PRC, and two decades since the PRC began a radical transformation of the way in which it organized and managed its economy. The focus of this essay is on this last two decades.

The end of the 20th century also coincides with the worst economic crisis to hit East and Southeast Asia since the end of the Great Depression and World War II. Through 1998, the PRC was spared the worst consequences of this crisis, but it did

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not escape altogether and may face a similar economic crisis of its own in the coming decade. An understanding of where the PRC is today is one basis for judging whether it will in fact face a crisis similar to the one that engulfed much of the region in 1997-1998.

The approach in this essay is to begin with a quantitative analysis of the PRC's economic record. The second part of the essay reviews the reform efforts of the past two decades and spells out the major reform challenges that still lie ahead. The final part of the essay reviews who in the PRC has and has not benefited from rapid growth and structural change.

Growth and Structural Change

The PRC's economic reforms can be analyzed with respect to whether they have been too fast or too slow, or whether they have or have not completed the transformation into a market economy. The discussion in the second part of this essay will be largely in those terms. The most important question concerning the PRC's economic reforms, however, is whether they have improved the performance of the economy since the reform period began, and whether that performance is likely to continue into the future.

The overall performance of the PRC's economy can best be seen in a growth accounting framework as presented in Table 1. The figures in this table are mainly derived from official sources, but they differ from those published in the PRC in important ways. Most significantly, the gross domestic product (GDP) and net material product (NMP) figures have been recalculated to eliminate the effects of relative price distortions in the prereform and early reform years. Prices in the 1950s, in particular, were administratively determined, rather than market determined, and were set at very high levels for industry and relatively low levels for agriculture. Use of earlier year prices to calculate GDP or NMP growth rates, therefore, exaggerate the growth rate because they give too high a weight to the faster growing industrial sector.¹ The capital stock figures were derived by the perpetual inventory method and the employment figures are in numbers of employed unadjusted for changes in human capital.

¹Several sources point out that the PRC used 1952 "unchanged prices" to calculate the NMP growth rate for the years 1952-1957, 1957 unchanged prices to calculate the NMP growth rate for 1957-1971, 1970 unchanged prices to calculate the NMP growth rate for 1971-1981, etc. To confirm that this was the case, we checked the NMP growth rates in the 1980s with those reported for the 1950s in 1960, when only 1950s unchanged prices were available and those growth rates are essentially identical. Therefore, there is no reason to think that the Chinese statistical authorities at some later time adjusted earlier growth rate estimates to eliminate the effect of early year price distortions. See, for example, State Statistical Bureau (1983, 1960).

Table 1: Accounting for Growth

Year	GDP/NMP (growth rates)	Capital Stock	Employment	TFP	Labor Share
1952-1957	6.2	4.81	2.78	2.61	0.6
1958-1965	1.52	5.49	2.37	-2.10	0.6
1966-1978	5.0	8.07	2.63	0.19	0.6
1979-1988	9.9	10.1	3.07	4.02	0.6
1989-1997	9.51	9.23	2.79	4.14	0.6
1952-1978	4.14	6.64	2.58	-0.06	0.6
1979-1997	9.71	9.64	2.94	4.09	0.6

Constant returns to scale were assumed so that the shares or weights applied to the labor and capital stock growth rates add up to one. The further assumption that the labor and capital shares were 0.6 and 0.4 respectively is one source of potential error in the TFP estimates. If the capital share was substantially higher than 0.4, then the TFP estimates would be lower and the reverse would be the case if the capital share figures were lower. A 0.5 share for labor and capital, for example, would produce TFP estimates for 1952-1978 and 1979-1997 of -0.47 and 3.42 percent respectively. Plausible changes in these weights, however, do not materially effect the argument made in this essay. The PRC does not publish national income data in a form that would allow these income shares to be estimated directly so the decision was made to use weights similar to those estimated for other developing countries.

The NMP growth rates for 1952 through 1978 serve as a proxy for the growth rate of GDP in these years. The data used in this table were calculated from official Chinese sources. The growth rates themselves, however, are very different from those found in Chinese sources because the growth rates used here were calculated in terms of 1992 prices, rather than by following the Chinese practice of calculating 1952-1957 growth in 1952 prices, 1957-1970 in 1957 prices, and 1970-1978 growth in 1970 prices. These earlier year prices were determined by administrative fiat and often bore little relationship to what market-determined prices would have been. The 1992 prices, in contrast, were largely determined by reasonably competitive market forces. Given the data available, it was not possible to recalculate NMP for each year item by item, but it was possible to recalculate NMP sector by sector. Because the main biases that influenced the growth rate were the excessively high prices of industrial products and the downward biased agricultural products, the recalculation of NMP sector by sector in 1992 prices removes the most serious biases in the earlier year figures. To recalculate NMP in 1992 prices, the first step was to derive a sector price deflator. This was done by dividing reported current price NMP sector data by the Chinese official constant price production index. This derived deflator was then used to convert the current price sector figures into 1992 prices. The sector figures were then added up to give NMP in 1992 prices.

Ideally it would have been desirable to also calculate growth rates for the earlier years beginning in the 1950s using market prices for those years rather than for the year 1992 since there were bound to be significant changes in relative scarcities over that long period. But no market prices exist for those earlier years so we decided that the 1992 market prices were more likely to reflect the relative scarcities of those earlier years than would the state administratively set prices of the 1950s.

It has been argued that the Chinese corrected for the impact of the very different price structures in the 1950s through the 1970s when they calculated NMP in “comparable prices”. But there is clear evidence that the NMP growth rates for the earlier years are in the constant prices for those earlier years. The 1952-1957 NMP growth rates were calculated using 1952 “unchanged prices”, the 1957 through 1971 growth rates used 1957 unchanged prices, the 1971 to 1981 NMP figures and growth rates used 1970 unchanged prices, and the 1980s growth rates are based on 1980 unchanged prices. This is explicitly stated in such sources as State Statistical Bureau, *Zhongguo tongji nianjian 1990* (1990, 84); and State Statistical Bureau, *Statistical Yearbook of China 1983* (1983, 580-1). In addition, we checked the NMP growth rates as reported in these later publications with the growth rates calculated for the 1950s and published at that time when there was no alternative but to use the fixed prices of either 1952 or 1957. The NMP growth rates in such earlier publications as State Statistical Bureau, *Weidate shinian* (1960) are essentially identical to those appearing in later publications.

The capital stock data used here were derived by the perpetual inventory method. Gross domestic capital formation in current prices was taken from official Chinese sources for 1978-1997. For 1952-1977 the rate of “accumulation” in current prices was used and these figures were multiplied by 1.34 to make them roughly equal to gross domestic capital formation (1.34 is the average ratio of GDCF to accumulation in the years for which both figures are available). The current price data for 1987-1997 are deflated by the “means of production” or producer goods price index for those years, but this index is not available for earlier years. For 1952-1986, the industry sector price deflator described in the previous paragraph is used. This latter price index is not ideal, but industrial product price changes during the years 1952 through 1977 were very modest so it is unlikely that this index introduces major error in the estimates. The depreciation rate was assumed to be similar to the rate in Taipei, China that can be derived from data reported there. That rate on average was 7 percent per year.

The employment data are from official Chinese sources without adjustment. Estimates of improvements in the quality of this labor force would be desirable, but that exercise is very data and time-intensive and is beyond the scope of what can be accomplished in this essay.

Total factor productivity is derived as a residual.

The data in Table 1 tell a clear story. Prior to the beginning of the PRC’s reforms in late 1978, economic growth was slow and what growth there was arose largely because of the relatively high rate of growth of the capital stock. The capital stock could grow faster than GDP from 1952 through 1978 because the investment rate in the PRC rose steadily throughout this period. The rate of “accumulation” (roughly equivalent to the ratio of gross domestic capital formation to GDP) rose from 21 percent in 1952 to well over 30 percent by the 1970s.² Total factor productivity growth (TFP) was negative for the period taken as a whole. If the contribution of human capital resulting from the rapid expansion of education had been included, TFP would have fallen even more into the negative range. Elimination of the early years of 1952 through 1957 before the PRC began experimenting with radical approaches to economic development would further lower TFP. Very high rates of investment, therefore, partly made up for the impact of the “Great Leap Forward”, the “Cultural Revolution”, and the “Third Front” effort to move major parts of the PRC’s military related industries deep into the interior between 1958 and 1976. The PRC’s NMP growth rate over 1958-1977 was only 3.3 percent (barely over 1 percent per capita), roughly the same as that of India during the same period.

What changed after 1978? The rate of growth of the capital stock rose, but by only 2 percent a year. The rate of gross capital formation as a share of GDP actually fell during the first six years after the economic reforms began. This rate then rose steadily, peaking in 1993 at 43.3 percent of GDP before falling back to 38.2 percent in 1997. These extraordinarily high rates of investment for a poor developing country were made possible before the reform period by the taxing power of the state. After the reforms got underway, however, these high rates were largely financed out of a huge increase in personal savings. There was a debate for a time over whether this

²Accumulation is the term used to measure the share of NMP that is used for investment purposes. As such, like NMP, it excludes many services, but the ratio of accumulation to NMP would equal that of GDCF to GDP if the rate of capital formation in the excluded service sectors were the same as in the included material sectors. The early year accumulation rates in the PRC are probably overstated because of price distortions that overvalued capital goods.

rise in savings was voluntary or forced, but the consensus now is that this rise was based on the voluntary decisions of individual households.

As a number of recent studies suggest, high savings rates are driven to a large degree by low dependency ratios (the share of the population aged 0-14 years old plus that over 64 years old, divided by the population aged 15 through 64). The PRC's experience, like that of much of East Asia, is consistent with this hypothesis. Vigorous family planning programs begun in the early 1970s brought the share of those under 15 years old down sharply while the share of the population over 64 years old remained low due to the high Chinese mortality rates of the first five decades of the 20th century. The dependency ratio, which was around 0.8 in 1964, had fallen to 0.62 by 1982 and to 0.52 and 0.49 in 1987 and 1996, respectively.³ This dependency ratio will begin to turn upward once those born in the population explosion years of the 1950s and 1960s begin to leave the labor force, but that time is two decades in the future. Chinese demographics, therefore, are supportive of a high savings rate for the foreseeable future. Other influences could bring the PRC's saving rate down and a high savings rate does not guarantee a high investment rate as Japan and Taipei, China have demonstrated in recent decades. That said, there is still no reason to expect the PRC to experience a decline in the rate of capital formation due to foreseeable demographic trends.

But even if the investment rate remains high, it does not follow that the PRC will continue to experience high GDP growth rates. High growth in 1979-1997 was mainly driven by the increase in TFP. In the absence of TFP growth, the GDP growth rate in the PRC over the most recent two decades would have been just over 5 percent per annum rather than 9.5 percent. TFP in this context could be driven by a number of different elements. Omitted variables such as the rapid growth of education and human capital in the PRC are part of the story. Probably equally important was the ability of the PRC after 1978 to access the best technologies available around the world. Before 1978 the PRC lacked the foreign exchange necessary to pay for large-scale imports of high quality equipment and the policies of the time discouraged such imports in any case. The policy changes after 1978 and the boom in exports and foreign direct investment (FDI) that resulted effectively removed this constraint. The shift in the PRC's workforce from low-productivity tasks in the rural areas to higher productivity work in the cities is another part of the explanation for the high TFP figures for the reform period. Of possibly even greater significance was the shift of labor out of low-productivity farming activities into higher productivity nonfarm activities such as the township and village enterprises. Research and development expenditures, it should be noted, were small—at least outside of the military sphere—and are not likely to explain much of the TFP growth.

³The Chinese define the working age population as being between the ages of 15 and 60 (for men) or 55 (for women), which gives them higher dependency ratios in each period, but does not affect the trend over time.

But potentially measurable inputs of this sort are only a part of the story. Economic reform also led to major improvements in the way Chinese producers managed their resources. This is most clear in the case of agriculture where the freeing up of rural markets and the abandonment of collective agriculture led to a farm output boom in the 1979-1984 period. The surprising acceleration in the growth of township and village enterprises that proved to be more responsive to market forces than the lumbering state-owned sector is another part of the story. As the discussion in the next section will point out, there was also some improvement in the efficiency of the state enterprises themselves.

It may be the case that these high rates of productivity increase would not have been possible in the absence of high rates of capital formation. Put differently, many of the improvements may have been embodied in the new capital stock or required complementary inputs of capital to be effective. In the meta-production function approach used by Lau and Park (1998) and Kim and Lau (1993), the elasticity of GDP growth with respect to capital stock growth is much higher than in growth accounting exercises of the kind used here.⁴ The difference is that Lau's approach results in large economies of scale at low levels of per capita income, whereas the more common approach used here assumes constant returns to scale.⁵

The differences between the two approaches, however, are more apparent than real. We do not have a clear understanding of just what economies of scale mean in an aggregate production function. The most likely explanation is that scale economies at this aggregate level are really another name for the many kinds of external economies that are associated with the early phases of modern economic growth. What shows up as TFP in one calculation is much the same as economies of scale in the latter. The one important difference is that the meta-production function approach implies that much of the TFP growth would probably not occur in the absence of a high rate of growth in the capital stock. The more conventional approach is agnostic on this point.

These growth accounting exercises measure what the PRC has accomplished to date. What can be said from this analysis about the PRC's future? Clearly the PRC cannot continue to raise the rate of gross capital formation as a share of investment

⁴For East Asian economies in the early stages of growth, Lau gets capital elasticity estimates of 0.6 and even a bit higher as contrasted to estimates of 0.2 to 0.4 found in most growth accounting studies that assume constant returns to scale. Lau and Park's (1998) production elasticity of capital for the PRC starts at above 0.7 in the latter half of the 1960s and does not fall below 0.6 until the late 1980s.

⁵In formal terms, of course, either economies of scale are there or not, but we do not have a reliable basis for deciding which is the case with respect to aggregate production function estimates. What we do know is that when econometric techniques are used to estimate the coefficients for the meta-production function, they produce estimates that indicate the presence of economies of scale. At least this is the case for the East Asian economies whose per capita GDP is lower than that in the most advanced economies. When one imposes constant returns to scale on the aggregate production function for these East Asian economies, rather than estimating these coefficients using econometric techniques, the result is that whatever is causing the economies of scale in the meta-production function shows up in the residual.

given its already very high level. It follows that growth can only be sustained at the level of the past two decades if TFP remains high as well (or large economies of scale-external economies continue to be embodied in capital). What are the prospects for continued TFP growth? Education or improvements in the stock of human capital have a long way to go before the PRC catches up with either its East Asian neighbors or the post-industrial economies. There is still a large body of underemployed labor in the countryside, so productivity growth from transferring this labor to more productive urban occupations will continue for some time. There are questions one can raise about the PRC's ability to continue to expand exports and foreign direct investment, but maybe the foreign exchange constraint is no longer binding and it does not matter whether the share of exports in GDP continues to rise.⁶

The central question for the future, however, does not involve these potentially measurable sources of productivity growth. The central issue is whether the PRC can continue to generate improvements in the efficiency of resource use of the kind achieved during the first two decades of reform. Were these improvements one-shot gains whose potential has now been exhausted? Even if the potential for improvements remains, will the Chinese government have the capacity and the will to do what is required? As the discussion in the second part of this paper makes clear, the PRC's current reform effort falls far short of some free market ideal and there is thus considerable room for further reform. But will these reforms have the same impact as initial efforts in this direction even if the PRC's government carries them out with vigor? There is no definitive answer possible to these questions. We can describe the reforms that need to be completed. We also know that other economies that went through a similar high growth and structural change period, notably Republic of Korea and Taipei, China, achieved per annum rates of growth in the 8 to 10 percent range for nearly three decades. Furthermore these economies started from a higher per capita income than was the case of the PRC in 1978. Thus, if the PRC can continue to reform its economy, it too might be able to sustain 8 percent growth or possibly even more for another decade or even two.

The GDP and TFP growth rates are one way to measure whether an economy is performing as well as it could in response to market forces. Another approach is to look at the structure of the economy to see if there is anything unusual about that structure that might provide some guidance to why an economy was performing well or badly. The standard view of the PRC's growth strategy prior to the beginning of reforms in 1978 is that the government put most of its resources into industry to the neglect of agriculture, and that most of the resources going to industry went to the

⁶The foreign exchange constraint could no longer be binding (in the two-gap model sense) for two major reasons. First, the PRC may now have achieved a level of export and FDI growth that provide more foreign exchange than investors and consumers in the PRC can use effectively (or as much as they can use effectively). Second, the PRC itself is now able to produce much of the sophisticated equipment it needs that before it had to import. The two-gap model has no real relevance in an advanced industrial economy that can readily substitute domestic production for imports if relative prices and comparative advantage change.

heavy or producer goods industry sector. Because the PRC attempted to develop machinery, steel, and petrochemicals at too early a stage of development, the cost of this industrialization effort was excessive and is a major reason why productivity was so low. The PRC, the argument goes, should have put more resources into agriculture, and industrial investment should have concentrated on the consumer industries in which the PRC had a comparative advantage.

There is a clear validity to this standard view of the prereform period, but the argument can be overdone. Data for the shares of the primary (agriculture plus mining) and secondary (mainly industry) sectors are presented in Figures 1 and 2. The figures are for the shares of NMP for the years prior to 1978 because those are the only data available since the PRC did not begin calculating GDP until the late 1970s. The figures for the years 1978 onward for the PRC and for the large country pattern worldwide are expressed as shares of GDP. Data on the PRC have been recalculated in terms of 1992 prices when market forces were the primary determinant of relative prices. Share data of this sort is particularly sensitive to relative price distortions of the kind that prevailed in the PRC prior to the reform period when prices were set administratively.

Figure 1: Share of Industry in NMP and GDP

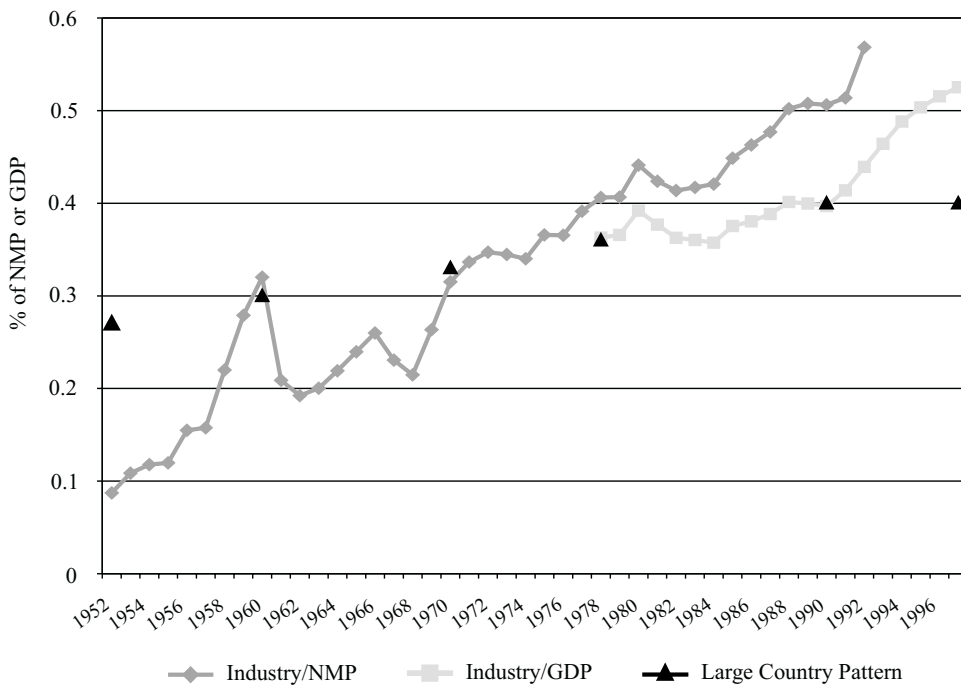
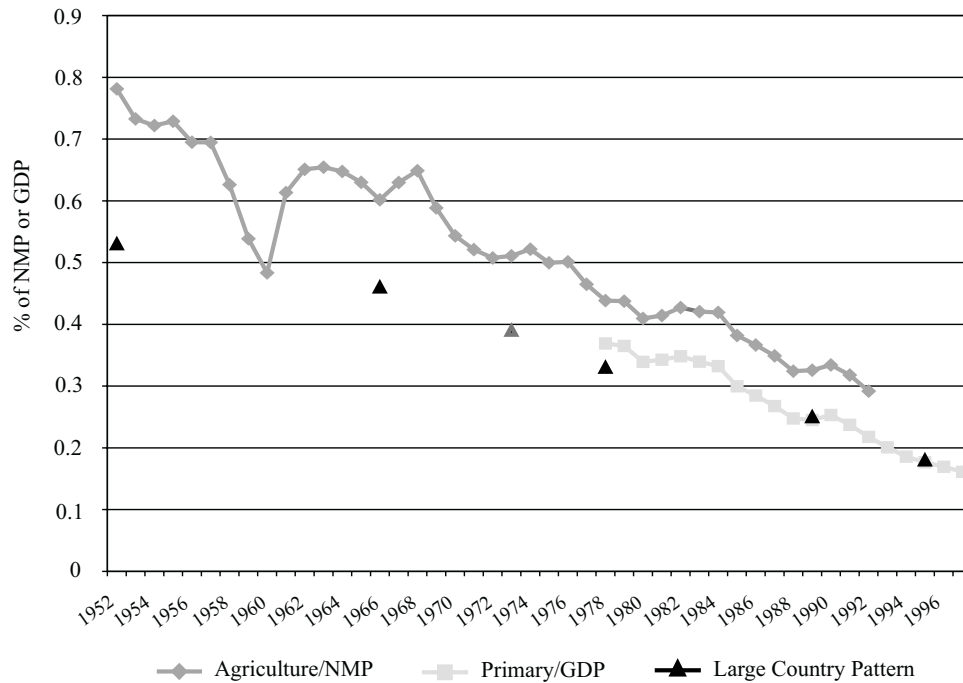


Figure 2: Share of Agriculture in NMP and GDP



The estimates in Figures 1 and 2 were derived from official Chinese gross domestic product (GDP) and NMP data. These data are published in State Statistical Bureau, *Zhongguo Tongji Zhaiyao 1998* (China Statistical Summary 1998, 12-5); and State Statistical Bureau, *Zhongguo Tongji Nianjian 1989* (China Statistical Yearbook 1989, 29-30). The PRC did not calculate GDP for the years prior to 1978 but did calculate the closely related net material product (“national income” in Chinese terminology). Prices in the PRC in the 1950s through the 1970s were determined administratively rather than through market forces, and the deviation from what market prices would have been appears to be very large. Industrial prices, in particular, were generally set at monopoly price levels in order to generate revenue for the state, and these upwardly biased prices led to a substantial upward bias in NMP growth rates.

To eliminate this bias, the GDP and NMP figures have been recalculated in 1992 prices, the last year for which NMP figures are available. The year 1992 is also one in which most prices were determined by reasonably competitive market forces. Deflators (price indexes) for each of the sectors were derived by dividing the current price sector estimates by the Chinese official production index at constant prices. That price index was then used to convert the sector production figures for each year and each sector into constant 1992 prices. The industry sector in this estimate also includes construction.

As stated earlier, the Chinese corrected for the impact of the very different relative price structures in the 1950s through the 1970s when they calculated NMP in “comparable prices”. But there is clear evidence that the NMP growth rates for the earlier years are in constant prices for those earlier years. Because these earlier year unchanged prices were distorted in the direction of very high prices for industrial products and low relative prices for agricultural products, we felt that the use of prices determined mainly by market prices rather than by administrative fiat made more sense. Because there were no market prices for these earlier years, we used the prices of 1992, which is one of the first years when most Chinese prices were determined by market forces. It is true, of course, that 1992 prices may not reflect the relative scarcity situation in the earlier years, but we submit that these prices are more likely to be closer to some true measure of relative scarcity than are the highly distorted prices that actually existed in the 1950s and 1960s.

The large country pattern in the charts is the “very large country” pattern of GDP shares at different levels of per capita income (see Chenery and Srinivasan 1989, 1725-6).

What these figures indicate is that the PRC in the 1950s was almost exclusively an agricultural economy, more agricultural than other nations with similar levels of per capita income such as India. All of industry, not just manufacturing, amounted to around 10 percent of GDP (and a slightly higher percentage of NMP that excludes many services). That figure is roughly the same as the industry share of Ethiopia in the 1990s. The government emphasis on industry, therefore, could be seen as an effort to get a better sector balance in the development of the PRC's economy. By the 1970s the PRC's agricultural and industrial shares in GDP had caught up to the typical pattern found in other large countries at a similar level of per capita income. It is interesting to speculate what would have happened in the 1980s and 1990s if the PRC had not begun instituting market-oriented reforms. Would the share of industry kept on rising faster than the typical pattern of large countries while the share of agriculture fell well below the typical pattern? The PRC did, however, introduce market forces into the economy beginning with agriculture. The share in GDP of the primary and secondary sectors traces the typical large country pattern throughout the 1980s, and in the case of agriculture, through the 1990s as well.

Data for the 1990s in Figure 2 suggests departure from the typical large country pattern by allowing the industrial share in GDP to continue to rise. Industry's share in most countries levels off at around 40 to 45 percent of GDP and then falls, as the service sector becomes dominant. The share of industry in the PRC, in contrast, passed 50 percent in 1995 and continued to rise. The share of the service sector in the 1990s began to fall after rising throughout the 1980s. Services were typically neglected or even suppressed under the kind of Stalinist economic policies pursued in the PRC in the prereform period, so the rapid catch-up in the 1980s was to be expected once the sector was freed from the constraints of a centrally planned economy. The decline in the service sector share in the 1990s is unexpected. Both the decline in the service sector share and the unusually high share of the industrial sector would appear to be the beginning of a major deviation from the expected pattern. Conceivably, such a deviation is justified because of special conditions that pertain only to the PRC. An equally plausible hypothesis, however, is that this emerging pattern reflects the partial nature of the PRC's economic reforms. Industrial enterprises that ought to be closed down continue to exist and even to expand. This is a hypothesis, it should be emphasized. Time and further analysis are needed before it becomes more than a hypothesis.

The one clear policy-induced distortion in the pattern of Chinese growth was the overemphasis on heavy or producer goods industry throughout the prereform period. In the East and Southeast Asian economies in general, the producer goods sector starts at 40 percent or less⁷ of all industry and then rises steeply as per capita GDP increases from about \$1,000 (1990 purchasing power parity US dollars) to \$5,000.

⁷These estimates are based on regressions estimated from data compiled by the authors.

The share of heavy industry in the PRC, in contrast, rose from under 36 percent of gross industrial output in 1952 to 47 percent in 1957 and to 57 percent in 1970 and 1978. Purchasing power parity per capita GDP in the PRC in these same years only rose from around \$260 (in 1990 purchasing power parity US dollars) to less than \$500. During the early years of economic reform in the early 1980s, this share actually fell slightly and then began again to rise reaching 60 percent in the mid-1990s when the PRC's per capita GDP had reached roughly \$2,000 in purchasing power parity terms. Heavy industry is not identical with the producer goods industry and gross value shares are not the same as value added shares, but the concepts are close enough to make comparisons of Chinese data with the patterns in East and Southeast Asia meaningful.⁸

The PRC's premature emphasis on heavy industry beginning in the 1950s is one major source of the PRC's state-owned enterprise (SOE) problem of the late 1990s. By developing this sector before the PRC had the necessary technical and managerial skills, the government created a large sector that could not compete internationally and, in many cases, could not be effectively reorganized to compete. Much of this heavy industry is concentrated in the PRC's Northeast and it is no accident that the Northeast is the home to a large share of the PRC's most poorly performing state enterprises. The reform period did not further exacerbate the problems created by the early overemphasis on heavy industry, but it did not fully solve them by the late 1990s either.

The PRC's post-reform growth and structural change have been impressive by any reasonable standard. The reforms put in place led to both acceleration in overall growth and a correction in the structural distortions that had been created in the 1950s through the 1970s. Distortions remained, however, and the partial nature of some of the reforms may have been responsible. Before one can make a judgment about the relationship between the structural distortions and reforms, however, one needs to have a clearer picture of the evolution of the Chinese reform effort and the state of that effort in the late 1990s.

⁸The average ratio of value added to gross value output in the heavy industry sector was 26.6 percent in 1996, whereas that in light industry was 24.0 percent. Light industry as defined by the PRC covers mainly consumer goods, while heavy industry covers mainly producer or capital goods.

Incremental Reform and the Dual-track Transition to a Market Economy

The PRC's market-oriented reforms started with the gradual liberalization of economic activities, step by step, and sector by sector. Some new market elements were welcomed, but the reforms of existing institutions, especially those that involved vested interests, met with strong resistance. Resistance also came from those in the government and the party who favored a planned economy because they believed that such a system was more suitable for the PRC. As a result, the PRC began moving along a road of incremental change—developing new systems without first reforming the existing institutions. By such a process, reforms may proceed smoothly because strong resistance is avoided, but may also continue for prolonged periods during which the different systems exist alongside and often in conflict with each other. This dual-track transition took place in almost all sectors.

It should be noted, however, that this step by step dual-track approach did not mean that all reforms were introduced slowly or gradually. The abolition of the collective agriculture system in favor of a return to household farming, for example, was completed in less than five years. Therefore, individual reforms in some cases proceeded very rapidly. What differentiated the Chinese experience from that in parts of Eastern Europe was that the Chinese reformed one or two sectors at a time and the hardest problems were left last. Within particular sectors, changes sometimes proceeded rapidly as in the case of the return to household farming, and sometimes gradually as in the case of the dual price system described below. There was no “shock therapy” effort to transform the whole Chinese economy into a market economy overnight.

Economic liberalization started in 1978 with the production and transaction of many agricultural products. Farmers were allowed to sell their products on the free market after meeting their quotas for procurement sales set by the state planners. Later such an arrangement was introduced into many industrial sectors as well. The proportion of planned production of total industrial output value was reduced from over 90 percent in 1978 to 5 percent in 1994.

The dual-track system was first used officially in price reform (Shi and Liu 1991). There were three kinds of pricing during the transition: planned fixed prices, state guided prices, and market prices (Table 2). The reform started with two steps: (i) opening the free market and allowing people who were willing to pay higher market prices to purchase more on the market, while still keeping state-rationed supply unchanged at fixed low prices; then, (ii) adjusting the official prices in order to narrow the gap between the market clearing price and the official price. This latter step was usually accompanied by consumer subsidies (or tax deductions for enterprises) in order to minimize the impact on consumers' real income. Purchases at market prices were then increased as a share of total consumption and the difference between the official price and the market price was narrowed through several price re-

adjustments. When the time came for the convergence of the two tracks, the importance to consumers of planned supply at official prices was often negligible. A good example is the case of food pricing. After a 13-year transition from 1979, the official price supply had decreased to about 20 percent of total food consumption in terms of sales value. As a result, when the final steps toward convergence took place in 1992, no “shock” was observed.

By the end of 1994 about 40 kinds of goods still remained subject to some degree of state pricing for at least a portion of their sales. Among these were state purchase prices of grain, cotton, and tobacco; together with the purchase and sale of chemical fertilizers, coal, electricity, oil, natural gas, and chemical materials. The most controversial remaining price control was the state pricing for grain and cotton. The artificially low prices of natural resources and public utilities also caused a great deal of inefficiency and waste. As the data in Table 2 make clear, however, as early as 1993, over 80 percent of all retail sales together with sales of agricultural and intermediate products were at market prices, and that percentage continued to rise after 1993.

Table 2: **Dual-Track Transition of Pricing System^a**

Year	1978	1985	1988	1990	1991	1992	1993
Agricultural goods*							
Planned price	94.3	37.0	24.0	31.0	22.2	12.5	10.3
State-guided price	0.0	23.0	19.0	27.0	20.0	NA	7.0
Market price	5.6	40.0	57.0	42.0	57.8	NA	82.7
Retail sales**							
Planned price	97.4	47.0	28.9	30.0	20.9		12.2
State-guided price	NA	19.0	21.8	25.0	10.3		4.2
Market price	3.0	43.8	49.3	45.0	68.3		84.6
Intermediate goods							
Planned price	100.0			44.6	36.0	18.7	12.0
State-guided price	0.0			19.0	18.3		7.0
Market price	0.0			36.4	45.7		81.0

^aSales at different prices as percent of total sales

*There was a significant change in grain price policy and procurement purchase policy at the beginning of 1994 when the government strengthened control over grain pricing and increased the share of procurement purchasing. But there are no data available to show the changes.

** Retail sales refer mostly to sales of consumer goods.

Sources: *China Price Yearbook* (various years); *China Reform and Development Report 1992-1993: The New Progresses and New Challenges* (1994, ch. 3).

In the international sphere, with the steady rise of over nearly two decades, the PRC's international trade reached US\$ 325.06 billion in 1997, up from \$20.64 billion in 1978. A total of US\$ 220 billion in FDI flowed into the PRC through 1997, making the PRC the largest FDI recipient among developing countries since 1993. Market-oriented reforms, particularly in the handling of foreign exchange, were a central element in this success.

The reform of foreign exchange involved two currencies and two markets (two rates). The market was separated by two currencies, *renminbi* (RMB) and foreign exchange certificates (FEC) from 1979 through the 1980s. In addition, there was a black market during these same years. An official parallel swap market was introduced in 1986. By the time the unification of the official and swap market rates took place in 1994, the share of the swap market trade accounted for over 70 percent of total foreign exchange transactions. In 1996 the RMB was made convertible on current account.

The gradual liberalization of the foreign exchange market at least on current account was accompanied by several major devaluations, the most recent occurring in 1994 when the nominal value of the *renminbi* fell by 50 percent against the dollar. Inflation reduced the real impact of the 1994 devaluation, but that devaluation, together with continuing low labor costs, kept Chinese exports internationally competitive through 1997. By the end of 1998, however, the Asian financial crisis contributed to at least a temporary halt to the PRC's export drive. Exports to North America and Europe continued to grow rapidly in 1998, but exports to other countries in Asia fell. At least initially, the drop in Asian exports had more to do with the drop in incomes in the hard-hit Asian economies than it did with the increasing international competitiveness of those economies generated by their large, crisis-induced currency devaluations. At the end of 1998, the PRC still had a large current account surplus.

Although the nominal tariff on imports was high at an average 33 percent in the early 1990s, the actual tariff rate on imports was as low as 3.2 percent in 1995 because of the widespread practice of tariff exemption on capital and intermediate goods for most investment projects. At the beginning of 1996, the average nominal tariff rate was cut to 26 percent, but tariff exemptions were removed for most cases from April 1996. It was announced that the tariff rate would be further lowered to 15 percent by the year 2000. The restrictive licensing system that allowed only the licensed state trading companies to do foreign trade business was still in force, but the number of state trading companies had expanded greatly. Smuggling of consumption goods (automobiles, cigarettes, electronic goods) was high, partially due to the corruption of the customs service and local administrations.

Evolution of a Legal System

Having a long history without the rule of law and more than 30 years of central planning, the PRC has faced tremendous difficulties in establishing the kind of legal system required by a market economy. There have been over 40 new sets of laws adopted since the early 1980s. The process of drafting and adopting laws has accelerated in recent years. Among others, a Bankruptcy Law was passed in 1988; a Consumer Rights Law in 1993; a Corporate Law in 1994; a Central Bank Law, Commercial Bank Law, plus a Labor Law in 1995; and a Commercial Paper Law in 1996. Most of the laws are copies of established laws in developed countries with certain compromises to accommodate the current Chinese reality. Copying makes the law-drafting process easier, but at the same time, the laws are more likely to remain laws on paper only because law enforcement is weak. The speed in drafting and adopting new laws, however, reflects the rapidly growing demand for these laws resulting from expanding market activities.

Alongside and in contrast to the formal legal system, the Chinese economy and society in practice are characterized by the prevalence of:

- (i) Informal rules and arrangements, many of which are not consistent with the law. This is partially because reforms often undercut or eliminate the old regulations before the new formal institutions are set up. Informal arrangements sometimes play a positive role in breaking down old rules and in developing new practices. This practice, however, is unfavorable for the development of the rule of law.
- (ii) Administrative decisions and arbitration still play the most important role in settling disputes. Government regulations, rather than laws, are what most people refer to and follow. Going to court is still the last thing people think of doing, although the number of legal cases is increasing.
- (iii) The protection of private property rights is still incomplete. Business contracts, especially private contracts, are not well protected or enforced by laws. The rapid growth of overdue bank debt and interenterprise debt are examples. Another recent example of the lack of contract enforcement is the inability to develop housing mortgage credit because there is simply no law that allows enforceable eviction.

Ownership Change and State-Owned Enterprise Reform

The most important element of the dual track transition has been in the ownership structure of the economy. The PRC's progress in the development of a market

system and its rapid economic growth have mainly been due to the dynamic expansion of the nonstate sectors. These nonstate sectors include private and semiprivate enterprises, community-owned rural industrial enterprises, shareholding corporations, foreign joint venture companies, and individual businesses.

Ownership change started from the very beginning of the reform effort, when in 1979 through 1983, the collective or commune system was replaced by household farming. This single reform made agriculture, which accounted for over 30 percent of GDP, de facto private and the least state-controlled sector. When farmers became able to decide not only what they wanted to do on their contracted land but also what they would do with their surplus labor, small private business and community-owned industrial enterprises—the so-called township and village enterprises (TVEs)—began growing rapidly, building in part on the earlier rural small-scale industry program. TVEs are still a transitional form of ownership and have undergone dramatic institutional changes as they developed.⁹ With the rise of the TVEs together with other collective and privately owned industry, the share of state-owned enterprises in the total gross value of industrial output fell to 26.5 percent in 1997 (from 77.6 percent in 1978).¹⁰

Another important factor underpinning the changes in ownership structure was the increasing capital inflow and the growth of foreign joint ventures, especially those of overseas Chinese. Of the US\$42 billion foreign direct investment made in 1996 alone, 59.2 percent was from Hong Kong, China; Macao; and Taipei, China. In 1995, the foreign-invested companies produced about 14.6 percent of total industrial output, and about 50 percent of manufactured consumer goods on the domestic market, and accounted for 39 percent of international trade. The nonstate sectors developed more rapidly in those regions on the PRC's coast where reform and opening took place earlier and faster. In many of these rapidly growing coastal provinces, the nonstate sector contributed more than 70 percent of GDP by the end of 1995.

The remaining key hard core problem for the Chinese economy is the state sector, including the SOEs, the state-owned banks, and the government administration. Reforms in the state sector have mainly involved decentralization of decision-making powers and managerial adjustments without change of ownership. These reforms have resulted in “decentralized SOEs” and “autonomous” local governments, all playing increasing roles in determining resource allocation and income distribution within an unchanged ownership framework.

The impact of these soft reforms on state enterprises can be analyzed more systematically, at least in principle. Unfortunately, work to date gives us only tentative answers to the forces driving productivity and structural shifts during the post-

⁹One of the major advances in this area has been the recent development of the “collective shareholding system” in TVEs. This system involves redistribution or sales of up to 50 percent of property rights, in the form of shares among workers of the firms or members of the community.

¹⁰State Statistical Bureau, *Zhongguo tongji zhaiyao 1998* (1998,100).

1978 reform era. And little of the work so far allows for comparisons with the pre-reform era. Micro data sets for the pre-reform era, for the most part, do not exist.

From various micro studies we do know that early on in the reform period, state enterprise managers began paying more attention to profits rather than to gross value output as in the past (see for example, Byrd and Tidrik 1987). The main reason for this change was that planners made profits, rather than gross value output, the key enterprise objective; also, profits were central to whether managers and workers received bonuses at the end of the year. Even before the post-1978 reforms, Chinese state enterprise managers were less constrained by planners' dictates than was the case in the Soviet Union and that flexibility increased greatly after the reforms, particularly after 1984 (Granick 1990).

There have also been various attempts to measure productivity in the industrial sector. A study by Li et al. (1993) for 1981-1987 following the methodology pioneered by Dale Jorgenson indicates that there was positive productivity growth in 24 of the 32 sectors for which data were available, although in six of those sectors, productivity growth was less than one percent per year (Li et al. 1993, 69-70). The revised calculations of Jefferson, Rawski, and Zheng (1995) also indicate that there was significant total factor productivity growth in both state-owned and collective industry. The collective industry TFP figures for 1980-1992 were somewhat higher than those for the state sector, but by less than one percent in most periods (Jefferson et al. 1995, 11).

Despite these improvements in productivity, the profitability of SOEs has been continuously deteriorating. Market competition from nonstate sectors forces monopoly profits down. Wage payments, bonuses, fringe benefits, and "publicly financed consumption" (which are often disguised as costs) have increased more rapidly than output, resulting in a decline of returns to capital (Fan and Woo 1993). The percentage of loss-making SOEs increased to 39 percent of all SOEs in 1997.

Chinese enterprise profits, however, are probably a poor measure of anything related to efficiency. Chinese accounting procedures have yet to be standardized and treatment of interenterprise debt (accounts receivable) probably varies from one firm to another. Freed-up markets have also led to major changes in relative prices that have favored certain sectors at the expense of others. Data on producer price changes and the shifting patterns of sector profits are presented in Tables 3 and 4. If one looks at total industrial profits (before taxes) between 1986 to 1994, 45 percent of those profits in 1994 came from four sectors: petroleum and gas extraction, petroleum processing, smelting and pressing of ferrous metals, and electric power. Tobacco accounted for another 18 percent. In 1986 these same four sectors accounted for only 30 percent of all before-tax industrial profits. Profits in textiles and food, which accounted for 12 percent of all industrial profits in 1986, accounted for only 2 percent of all profits in 1994 and experienced a net loss in 1996. After taxes, both sectors were running at a loss in 1994 as well.

Table 3: **Producer Prices and Profits**

Year	1978	1984	1988	1992	1994	1996
Overall index	96.8	100.0	135.7	190.1	281.7	333.1
Power	92.2	100.0	111.0	160.8	304.5	377.1
Petroleum	81.9	100.0	124.6	198.1	504.5	639.6
Coal	85.7	100.0	151.6	263.8	444.4	562.4
Machine building	104.5	100.0	134.8	184.0	241.2	260.5
Food manufactures	88.2	100.0	137.6	174.3	244.1	313.9
Textiles	114.8	100.0	141.7	192.3	273.0	307.4

The reasons for these sector changes in profitability can be deduced from the sector indices of producer prices. In the 1980s and before, the PRC's planners kept petroleum, coal, and raw material prices low, well below world prices. Consumer manufactures' prices, in contrast, were high in order to generate profits that were mostly turned over to the state. It was not until 1993-1994 that the Chinese government finally began to allow energy prices to rise to world levels, thereby raising the profits of these sectors but cutting into the profits of others. State enterprises in the food and textile sectors faced the added problem of vigorous competition from the collective sector as well as from international competitors.

Table 4: **Before-tax Profits of State Enterprises for Selected Major Sectors**
(in millions of yuan)

Year	1986	1990	1994	1996
All industry	134,137	150,314	287,625	273,715
Light industry	53,151	67,943	88,900	91,859
Heavy industry	80,986	82,321	198,725	181,854
Coal	-715	-4,949	6,323	11,877
Petroleum/gas extraction	4,860	118	28,083	30,979
Petroleum processing	10,141	9,554	20,010	25,102
Ferrous metal smelting/pressing	13,776	17,235	43,933	21,163
Electric power	11,654	17,277	38,780	49,811
Tobacco production	13,246	27,190	52,644	67,923
Textiles	11,294	9,795	6,884	-2,814
Food manufactures	5,162	5,121	1,156	1,063

Sources: *China Statistical Yearbook* (1995, 249, 395 and 1997, 282, 431) and *Zhongguo tongji nianjian* (1991, 408; 1987, 315).

Rising or declining profits over time are, therefore, not a measure of changes in sector productivity or efficiency over time. The many loss-making state sectors as of 1994 and 1996, however, do indicate that the PRC has a serious problem that the shift to world market prices is fully revealing only now. Stripped of monopoly rights

and having to pay world prices for their inputs, many state enterprises are unable to run at a profit.

It is also the case that because of fiscal and financial reforms in the 1980s, SOEs now receive far fewer subsidies directly from the state budget.¹¹ But they do receive “quasi-subsidies” from the state banks in the form of “policy loans” and overdue debts.¹² These quasi-subsidies in turn are the main reason behind the delay in financial sector reform. With much higher access to bank credit, the average debt to asset ratio of SOEs has increased to over 80 percent in recent years.¹³ Bad loans were estimated officially at 25 percent of the loan portfolio of state banks at the end of June 1996. In addition, the interenterprise debt (IED) (“triangular debt”) continued to increase rapidly and the IED-GDP ratio rose to 42.99 percent in 1996, among the highest in the world (Fan 1996).

The problem of the SOEs, therefore, is the current core problem in the Chinese economy, and is centrally related to all other problems including financial underdevelopment, macroeconomic instability, corruption, government inefficiency, and the lack of the rule of law. But what is the basic cause for the poor performance of the SOEs? The major managerial problems usually complained about are: (i) government selection of managerial personnel; (ii) government interference in decision making with regard to investment, production, and income distribution; (iii) government decision of the use of existing capital assets; and (iv) bureaucratic regulations and the lack of the rule of law. While all these problems still exist, more and more people have come to believe that all of these problems are related to the ownership issue.

Ownership change, these people believe, will make it easier to change the incentives facing enterprise management in a desirable direction. Private ownership, for example, should help weaken the close ties between the enterprises and government officials, which should make it easier to harden the soft budget constraint. Private ownership, of course, does not guarantee this favorable outcome since government-enterprise relations may remain strong even without any formal state ownership of enterprise assets, but that is less likely to be the case than when the state does own the assets.

There is no centrally promoted program of mass privatization in the PRC and public ownership is still the central part of the official formula for a socialist market economy. Ownership reform, however, has already started, albeit on a slow path.

Shareholding started to be used as a way to reform some SOEs beginning in 1984, and then accelerated after 1988 when two stock exchanges were set up in

¹¹The nominal amount of total budgetary subsidies to loss making enterprises was 36.6 billion yuan in 1994, only slightly more than that in 1985 (32.4 billion yuan), without discounting for inflation.

¹²These kinds of subsidies are a major reason why state enterprises face a “soft budget constraint” as that term is used by Kornai (1992).

¹³It was officially estimated as 79.3 percent in the first half of 1995.

Shanghai and Shenzhen respectively. Corporate structure is widely used in the newly established companies or joint ventures. By the end of 1994, some 25,800 companies formally registered as shareholding corporations; among them 290 were listed on the market and that number rose steadily in the years that followed. The national average of private shares as the proportion of total shares of shareholding companies is about 30 percent, the rest are state shares consisting of “state shares” and “share of state owned entities”. The high percentage of state shares, of course, makes the current shareholding companies more like the conventional SOEs.¹⁴

The sale of existing assets of SOEs has been nominally permitted since late 1993,¹⁵ but such sales have been very restricted by official policy. Local governments at county and city levels started to act in 1993, however, when they found it would be beneficial to get rid of the financial and fiscal burden of SOEs on the local economy. Besides creating joint ventures, an increasing number of small SOEs were sold to private owners, to TVEs, and to foreign investors. While it is difficult to find investors to buy the equities of existing SOEs, selling securitized net equities (the total value of assets minus total debt) to workers of the enterprises concerned and thereby converting these companies to so-called “cooperative shareholding companies”¹⁶ became a popular way for SOE restructuring at the local levels of the economy.¹⁷ In some counties of Shandong province, up to 70 percent of small SOEs were sold in this way. The results of such a restructuring so far are quite positive and encouraging. Most firms have improved their financial situation, while those that turn out to be unprofitable often enter into bankruptcy voluntarily without much government intervention.

The central leadership began airing a new policy of *zhua da fang xiao* (improving the large SOEs while liberalizing the small ones) in 1995. Although the formal documents remained ambiguous about how to liberalize the small SOEs, the policy was definitely to encourage the local process of privatization at least for small enterprises. The effort to concentrate reform of state enterprises on the largest 1,000-

¹⁴In the statistics, when an SOE has turned into a shareholding company, it is no longer put in the category of SOEs. So any improvement in enterprise performance through corporatization will not show up in the statistical performance of the SOE sector, but will only be reflected in statistics covering all forms of ownership.

¹⁵In October 1993, the Third Plenary of the 14th Central Committee of the Chinese Communist Party adopted a new comprehensive “Decisions of Economic Reform”, which for the first time announced, among other things, (i) the objective of reform is a “socialist market economy”; (ii) the nonstate sector should be encouraged to develop along with the state sector; (iii) the reform of “property rights” of SOEs and sales of state assets should be allowed; and (iv) the corporatization of SOEs is taken as the main intermediate way for institutional change. This document is regarded as a major breakthrough for the reform agenda of the top leadership.

¹⁶This is a special form of shareholding with many characteristics of public ownership. The shares of the firm are owned by employees individually, but no matter how different the amount of shares held, everyone in the firm has equal voting rights and part of the dividend is distributed equally among the employees. After a period of time, the transfer and trade of shares is allowed, and, as a result, the concentration of ownership becomes a possibility.

¹⁷“Cooperative shareholding” was first developed in TVEs. By the end of 1995, 3 million TVEs had been converted into cooperative shareholding companies accounting for more than 20 percent of the total. In some regions such as Jiangsu, Shandong, and Zhejiang provinces, over 50 percent of TVEs use this system.

2,000 SOEs and let the rest fend for themselves was formally endorsed at the Party Congress in 1997 and at the National People's Congress in 1998. How this decision will be implemented, however, remains a question.

One of the main obstacles to the restructuring of SOEs is the existing welfare system for state employees, including the pension program, medical care, housing, and unemployment insurance. Compared to the former Soviet Union and Eastern Europe, the PRC's welfare reform is much easier because a majority of the population, those living in rural areas, was never covered by the system. On the other hand, it is more difficult because the social welfare system was all enterprise-linked.

Pension reform requires delinking retirement pensions from the enterprises and then setting up national pension funds. Pension reform started with various experiments, beginning in 1986 and accelerating in 1994, when the State Council adopted national regulations for a new system. By the end of 1995, about 80 percent of state employees had participated in the nationalized pension program although the full completion of the transition may take another generation. Most state employees can now take pension accounts with them when they shift jobs, although the terms of the pension may not be as generous as when they had stayed.

Housing reform has been under way since the late 1980s. By the end of 1995, it was estimated that 70 percent of previously public owned (either by government or by SOEs) houses and apartments had been sold to the current tenants at significantly discounted prices. Property rights are still partial, but full rights are promised after a transition period of 5 to 10 years. More and more enterprises have stopped providing free housing for their employees.

Medical care reform is moving in the direction of increasing personal accountability and reducing the soaring costs, but not much progress has been made so far. Commercial health insurance is playing a bigger role as most new companies are turning their health programs over to commercial insurance companies.

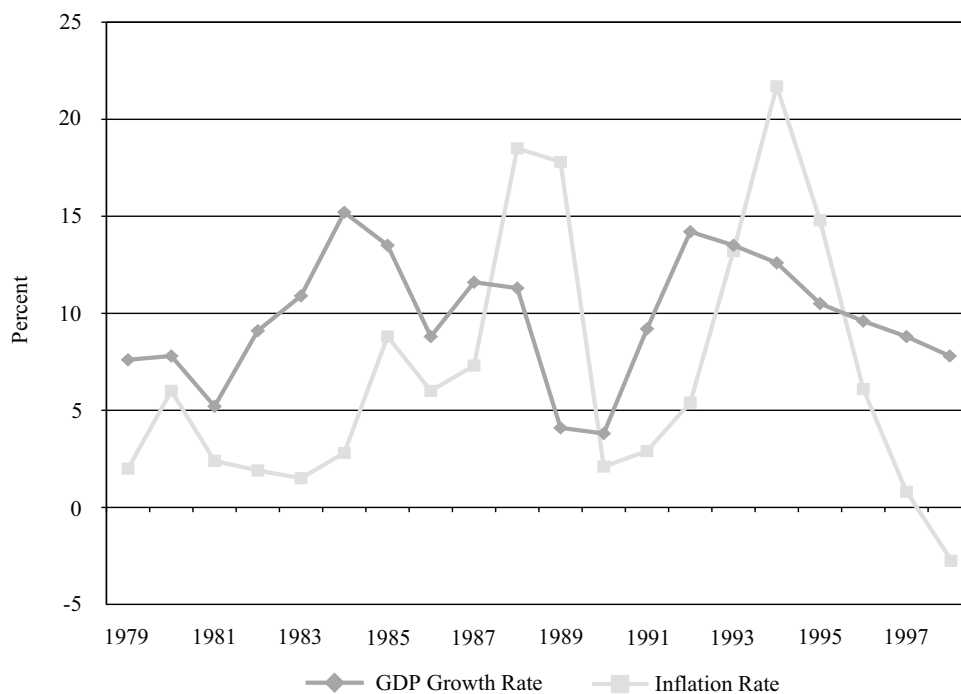
Unemployment insurance is enforced by the government and requires the employers and employees to make contributions to the insurance fund. So far, this insurance still plays a secondary role in the economy as most de facto unemployed still stay with the enterprises and are counted as "off duty workers" (*xia gan zhi gong*). For example, in 1995 there were only 2.1 million registered unemployed workers,¹⁸ but there were 7.5 million "off duty workers" in firms. These "off duty workers" claimed basic wages and other welfare benefits paid by the enterprises rather than by the government labor agency.

¹⁸This figure refers only to those unemployed persons who have worked, and excludes those who have never had a job.

Reform and Policies at the Macro Level

While growing at an annual average rate above 9 percent, the PRC managed to maintain basic macroeconomic stability during the reform period, although the threat of instability has always been present (see Figure 3).

Figure 3: PRC's Macroeconomic Performance



- (i) Despite repeated overheating and four economic cycles since the early 1980s, the growth of GDP has never been negative and most years was above 7 percent per annum. The PRC's economy continued to maintain a fairly high growth even during the first two years of the Asian financial crisis, 1997-1998.
- (ii) Although the price level has been increasing since the late 1980s, inflation measured by the Consumer Price Index was single-digit in most years, with the highest increase being the 24.1 percent registered in 1994. In contrast, in 1997, retail prices rose by only 0.8 percent and consumer prices by 2.8 percent.

- (iii) Rural unemployment or underemployment has been reduced thanks to the rapid growth of rural industries that now employ more than 120 million rural laborers. Urban unemployment as officially registered was stable at annual rates around 2 to 3 percent in most years, with a high of 4.9 percent in 1980. In 1997 the figure stood at 3.1 percent. As pointed out above, there were also 7.5 million “off duty workers” in 1995 and that figure has been rising as SOE reform takes hold.
- (iv) Government budget revenue has declined from 31 percent of GDP in 1978 to 11.6 percent in 1997. The state budget deficit rose to 2.31 percent of GDP in 1994, up from 0.76 percent ten years earlier and then began to slowly decline as a share of GDP. This deficit, however, does not include the “quasi-deficit” when the balance sheets of the state banks are added in. Total outstanding government borrowing (including government’s foreign borrowing) at the end of 1994 was about 5.4 percent of GDP (not including other public sector borrowing such as that by SOEs, government departments, and state banks).
- (v) Foreign trade grew at an average annual rate of 16.6 percent over the past 17 years. Trade and current account deficits were registered for the most part of the 1980s while a surplus occurred in the 1990s, except for 1993. Foreign reserves increased to US\$140 billion in 1997. At the end of 1994, the balance of foreign debt was US\$92.8 billion with a debt-service ratio of 9.1 percent and a liability ratio of 17.6 percent.

One of the main engines for the PRC’s economic reform and growth at the beginning of the 1980s was fiscal decentralization. The “fiscal responsibility system” introduced in 1984 allowed local governments to retain revenues after remittance (for a certain period) of fixed amounts of revenue to the central government, while giving incentives to the localities to expand their revenue base. The “contract responsibility system” for the SOEs was similar in that it also involved a fixed revenue remittance by these enterprises. These changes contributed to the fall in government budget revenue, and the fall in revenue in turn contributed to the fall in the central government’s budget expenditures as a share of total government expenditures—from 60 percent in the 1970s to 27.5 percent in 1997. This trend led to a great improvement in the efficiency or resource allocation and improved the incentives of enterprises, individuals, and local governments, but the decline in central government revenue sig-

nificantly weakened that government's ability to conduct fiscal policy and income redistribution.

To stop this trend, the government took a dramatic step at the beginning of 1994 toward ending the "contract responsibility system" and reforming the fiscal system. The key points of this reform were the introduction of a value-added tax as the major revenue source, and the setting up of a tax sharing system to replace the previous fixed amount remittance scheme. Revenue as a share of GDP nevertheless continued to decline in 1994 and 1995, but began rising slowly in 1996 and 1997. "Off budget revenue" grew even more rapidly: from 4.0 percent of GDP in 1994 to 6.8 percent in 1997. This revenue does not show up in the formal budget accounts and is retained by both local governments, and departments of the central government.¹⁹ The growth of off-budget revenue, however, has been accompanied by reports and complaints about the abuse of taxation powers by local governments, and the high and rising tax burden (or fee burden) on enterprises and individuals. Such revenue, moreover, has been irregular, unregulated, not transparent, and less monitored. It may also cause greater regional disparity because it is all based on local resources that vary widely.

The central government's share of on and off budget revenue, which even during the post-1978 reform period had been as high as 40 percent of total revenue, had fallen to 20 percent in 1993, but recovered to between 39 and 42 percent during the next three years. At the low point, the central government's ability to conduct fiscal policy was severely weakened, forcing the government to rely more on monetary policy plus administrative controls. The restoration of tax and fee income back toward the center restored some of the lost fiscal policy capacity, but the tax system was still heavily reliant on informal administrative mechanisms that lacked transparency.

Reforms in the Financial Sector

As budget revenue declined as a share of GDP in the 1980s, the government shifted a great part of its fiscal responsibilities, such as the provision of investment funds and SOE operating funds, to the financial sector. Previously the state banks were used mainly as bookkeepers for the government. In 1985, the fiscal allotments of funds to the SOEs and to investment projects were all converted to bank credits. Meanwhile, local governments and SOEs were granted autonomy to borrow from the state banks. As a result, the debt-asset ratio of the SOEs increased steadily, rising to

¹⁹There is another category of government revenue in the PRC, the "extra-budgetary revenue". It is actually included in the budget because it is planned and regulated by the central Ministry of Finance. All government agencies are required to annually report this revenue. In 1994, this extra-budgetary revenue amounted to about 30 percent of total budget revenue.

80 percent by 1995, among the highest ratios in the world. Consequently, banks suffered the growing problem of bad loans or nonperforming assets. By the mid-1990s nonperforming assets were estimated by official sources to be about 30 percent of all state bank credit. By 1994, the capital adequacy ratio of the four largest state-owned commercial banks had fallen to between 4.3 and 7.4 percent, below the Basle standard (see Lardy 1998). In 1993, three new “policy banks” were established to carry out part of the “policy lending” in the areas of long-term development loans, agricultural development credit, and foreign trade credit. Policy lending to SOEs, however, remains the business of the major specialized state banks. The commercialization of state banks has been a major objective of banking sector reform and banks have become more profit-oriented and more reluctant to continue making loans to loss-making and heavily indebted SOEs.

Credit quotas, or credit plans, still play an important role in monetary management. Interest rates for controlled loans (of credit quotas) are still centrally fixed at artificially low levels because of pressure from SOE borrowers, although higher black market rates prevail for many “re-lending” activities. In 1996, a national unified interbank relending market was opened officially as a parallel money market in which interest rates were virtually liberalized.

More than 250 foreign banks and 140 foreign nonbank financial institutions (including insurance companies) have opened their representative offices and branches in the PRC (mostly in foreign currency banking). The development of non-state banks, however, has lagged behind the development of nonstate business in the real sectors. Only one nationwide private corporate bank (Minsheng Bank) and three urban cooperative shareholding banks existed at the beginning of 1996. More urban cooperative banks are going to be established, but they are generally very much under the control of local governments.

The nonbank financial institutions, including a variety of trust and investment corporations, finance companies, leasing companies, insurance companies, and securities dealers, now play increasing roles in the financial market. Of about 400 trust and investment corporations, however, 185 are actually associated with state commercial banks working under rather soft constraints. Such an ownership structure has contributed to the highly speculative and volatile nature of the capital market.

There are at present two stock exchanges, in Shanghai and Shenzhen respectively, and eleven futures markets nationwide, with very limited trading. The capital market, however, has suffered from distortions in pricing, limited access, and extreme volatility in its early stages of development. The enforcement of regulations in the capital market is either weak or mismanaged through bureaucratic interference.

This recitation of the problems facing the PRC’s financial system could lead one to the conclusion that the PRC will some day face a financial crisis not unlike the one that hit so many other Asian economies in 1997. Certainly the PRC’s financial system is not inherently stronger than that of say Indonesia, the Republic of Korea,

or Thailand. And the PRC's financial system may yet become a serious drag on the overall performance of the economy. Japan's banking crisis, however, is probably a better indication of what might happen in the PRC than is the recent experience of Indonesia or Korea. The weakness of the PRC's financial system could lead to a general drying up of credit, with banks reluctant to lend because of fear that loans would turn bad and jeopardize their survival.

To get a full-fledged crisis of the 1997 Asian magnitude, however, several other ingredients would have to be present, which as of the end of 1998 were noticeably absent in the Chinese case. The PRC's banks and enterprises did not have large amounts of foreign debt and, what they did have was mostly long-term. The PRC, as already noted, also had very large foreign exchange reserves and a sizeable current account surplus. Neither debtors nor creditors had to worry about whether the PRC would have the foreign exchange to pay back its loans without having to sharply devalue the exchange rate. Finally, the PRC had controls on the movement of capital in and out of the country. These flows did not prevent a sizeable outflow in 1998, but they did slow it down to where there was little danger of a financial panic.²⁰

The absence of a financial panic, therefore, is not evidence that the PRC's financial system is strong. The PRC's financial reform has just started and has a long way to go. The underdeveloped financial infrastructure will remain as one of the major bottlenecks for improvement of the allocative efficiency of the economy as a whole over the next decade.

Economic Cycles and Stabilization Policies

It is a difficult job for any government to achieve macroeconomic stability in the early stages of both institutional transformation plus rapid economic growth. Unlike many other socialist countries, the PRC suffered serious macroeconomic instability under its previously centrally planned system, notably the economic crises caused by the Great Leap Forward (1959-1961) and the Cultural Revolution (especially in 1967-1968). Similarly, the overheating and structural imbalance in the late 1970s were also caused by the ambitious central plan of modernization, sometimes referred to as the "import-led Great Leap Forward". While GDP growth has never been negative over the past 17 years, three economic cycles can nonetheless be observed during the period of institutional reforms: 1984-1986, 1987-1991, and 1992-1996. Each time, the overexpansion of investment led to bouts of overheating and subsequent retrenchment.

²⁰ Despite a large inflow of foreign direct investment in 1998 and a large current account deficit, the PRC's foreign exchange reserves at the end of 1998 were no higher than they had been at the beginning of the year. The reason has to be that there were very large unrecorded outflows of capital from the PRC.

Macro instability since the early 1980s has been increasingly caused by the ineffectiveness of macroeconomic policies rather than by wrong policies. Being aware of the possibility of overheating, the central government in most years since 1980 has tried to keep the orientation of its macroeconomic policy toward demand control rather than expansion. This control, however, has proved to be increasingly difficult to maintain.

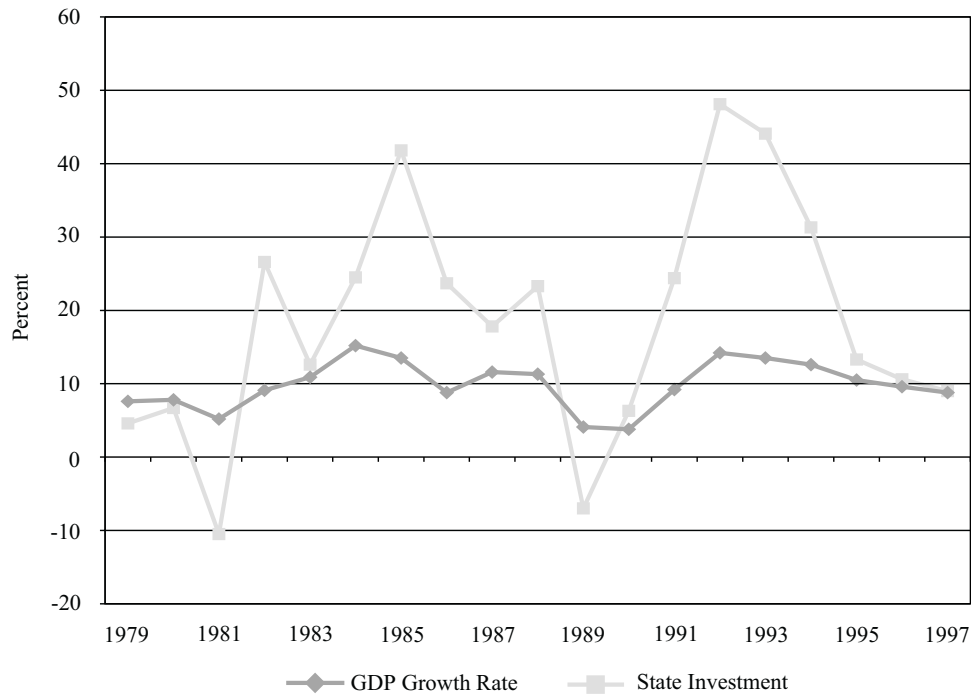
Due to the decentralization of decision making described above,²¹ local governments at various levels were granted both the fiscal resources and the administrative authority to approve investment projects with fewer and fewer limitations. State enterprises were also allowed to make their own decisions on expansion. Meanwhile there was a lack of “ownership control” in the public sector with respect to expenditures because the state ownership of capital assets of SOEs remained in general unchanged. Under such a system, the so-called “soft budget constraint” resulted in macroeconomic expansion as well as microeconomic inefficiency. In each economic cycle, macro overheating was caused by a surge of fixed investment in the state sector (Figure 4).

Financial sector reform as well led to a more decentralized system with increasing autonomy for banks and nonbank financial institutions. From time to time, the central monetary authority tried to reform monetary policy by relaxing the direct quantitative controls on credit and introducing market policy instruments. Due to the special relationship between local governments and SOEs on one hand, and between local governments and local branches of state banks on the other, monetary operations typically involved locally initiated monetary expansion. The local branches of banks cooperated or were forced to cooperate with local governments and SOEs to support their expansion programs by expanding credit. The increase in bank credit in turn forced the central authority to increase the supply of base money to avoid cash shortage crises. Such locally initiated monetary expansion can be partially verified by the observation that the actual money supply was higher than the planned money supply particularly during much of the 1990s.

The dual track therefore has severely limited the effectiveness of any single macroeconomic policy. The adjustment of interest rates, for instance, has effects on decisions of nonstate companies, but still remains basically ineffective for a state sector that still operates under a soft budget constraint. As the monetary situation has periodically spun out of control, the central authority has been forced to turn back to conventional administrative controls in dealing with the state sector, such as credit ceilings, cutting investment projects by administrative order, and recentralization of some decision making over project approval.

²¹While people usually praise the concept of decentralization, it is crucial in analyses of the Chinese economy to understand the difference between decentralization through privatization and decentralization without change of ownership, both of which occurred in the PRC.

Figure 4: State Sector Investment and Economic Cycles



The major questions for the future, however, are not whether the PRC can continue to keep inflation and unemployment at acceptable levels. Prices will be held down either by monetary and fiscal policy or by reversion to direct administrative intervention as has been the case to date. The unemployed will either be absorbed by high growth or will be pushed back on the rural communities from where they came. The real issue for the future is whether the PRC can bring the dual track system to an end and complete the move to a market system where administrative intervention, with its negative impact on economic efficiency, can be avoided. If this transition is not completed, Chinese development will continue to alternate between periods of high GDP growth and accelerating prices followed by retrenchment, slower GDP growth, higher unemployment, and falling prices.

The central question is whether the PRC will complete the process of building a market economy, as this section of the essay has made clear, and what will happen to the state-owned enterprises. Related questions are whether the PRC will succeed in creating a modern financial system and a national social welfare system. Many of the other reforms required by a market system are already in place and only marginal improvements remain undone. Prices, for example, largely have been freed up to seek

world levels. Foreign exchange is readily available for most current account and some capital account purposes. The central government's monopoly of foreign trade is a thing of the past. And over half of industrial output, all of agriculture, and a large share of services, are owned by individuals or groups that behave much like the private sector, whether they are formally part of it or not.

Many major changes in policies and institutions were initiated in the 1980s. These formal changes triggered a series of further moves away from the command system even when parts of the government bureaucracy resisted such moves. State-set prices, for example, could not be maintained because producers and other sellers had a powerful incentive to evade price controls. Something similar appears to be happening in the 1990s with interest rates. Import controls also proved difficult to enforce, particularly once foreign exchange became readily available. Much of the move to a market system, therefore, occurred more or less automatically once certain preconditions were in place. Even the state-owned enterprise problem has been ameliorated by the steadily rising share of nonstate enterprises. And many "back door" forms of privatization have occurred as state entities have transformed public property into private assets through joint ventures with foreign firms or by subcontracting with township and village enterprises.

But not all of the missing elements of a market system can be created by individual and firm-based changes pushing against a resisting but weak government bureaucracy. One cannot create a legal system where the rule of law prevails by this method, for example. Companies, foreign and domestic, can push the government to write and pass commercial laws, but the real issue is whether the government will create a transparent and equitable means of enforcing those laws. Nor will automatic processes create a national welfare system or privatization or corporatization of the largest state enterprises. These changes require the government's capacity to make decisive changes, often in the face of considerable resistance from the politically powerful.

The PRC in the 1980s and early 1990s achieved considerable success in overcoming the resistance to reform by government bureaucrats. Those who argued that a piecemeal approach to reform would ultimately receive the same fate as similar measures in Eastern Europe prior to 1989 proved to be wrong. The government bureaucracy in the PRC was not able to hold onto much of its power, particularly in the countryside, but also among many urban and suburban industrial sectors. But the PRC in the early reform period had a strong leadership that was not dependent on the government bureaucracy for its political influence. The current collective leadership in the PRC is not in a similar position, nor is there any reason to expect that the PRC will once again acquire within the next decade or so, the kind of decisive leadership that existed in the 1980s. The political foundations for that kind of leadership, for better or for worse, no longer exist.

Economic Development and Human Welfare in the PRC: Who has Benefited from Growth and Reform?

Earlier parts of this essay analyzed various features of the PRC's growth and reform efforts over the past two decades. In this section, we examine the distribution of the economic gains made over this period and some of the choices the PRC confronts in balancing continued growth and reform with equitable sharing of the benefits of development.

Changes in Rural Income and Income Distribution

In broad terms, there is no question that most Chinese rural residents have benefited enormously in the past two decades. The agricultural reforms launched in the late 1970s spurred an immediate jump in allocative efficiency and dramatically boosted rural incomes, which had remained virtually stagnant in the 1960s and 1970s. In official terms, real average net per capita income among rural households rose by an average of over 13 percent per year from 1978 to 1985 (see Table 5), even though official data understate actual income levels by excluding or undervaluing important sources of income.²² By the mid-1980s, however, the focus of reform had shifted to industry. Just as productivity gains in agriculture slowed, price reforms raised the cost of manufactured goods and reduced agriculture's terms of trade. Rural surplus labor was also aggravated by rapid expansion of the rural working-age population, which began to take advantage of relaxing government control over

Table 5: **Urban and Rural Incomes in the PRC**

Year	Urban Areas		Rural Areas		Urban:Rural
	Nominal	1978 yuan	Nominal	1978 yuan	(Nominal)
1957	254	n/a	73.0	n/a	3.48
1978	316	316	134	134	2.36
1980	439	401	191	179	2.30
1985	685	510	398	321	1.72
1990	1,387	625	686	335	2.02
1996	4,377	936	1,926	494	2.27

Note: Figures are for average per capita net income for registered urban and rural residents. Nominal figures are deflated by the urban/rural consumer price index.

Sources: Zhao (1993), SSB *China Statistical Yearbook* (1997).

²²One recent study using 1988 household survey data estimated that omitted sources of income, including subsidies, imputed value of housing, and output for self-consumption, added an additional two fifths to official per capita rural income levels (Khan et al. 1993, 30-3).

interregional movements and rising urban labor demand, and which migrated into cities in rapidly increasing numbers.²³ Growth in rural incomes slowed considerably to less than 1.0 percent per year on average between 1985 and 1990. In the 1990s, particularly after 1993, increases in agricultural production and jobs in rural industry again fueled rural income growth, which averaged an annual 6.7 percent from 1990 to 1996.

The jump in rural incomes in the early reform years appears to have been accompanied by a decline in rural income inequality, primarily due to the effects of distributing collectivized land on a per capita basis and allowing poorer regions to specialize in profitable nongrain activities. The World Bank estimates that as a result of these influences the Gini coefficient for rural income fell from 0.28 in 1979 to 0.22 in 1982, a very low level of inequality (see Table 6).²⁴ By 1982-1983, however, the equalizing impact of reform had worn off and income inequality began to rise. The World Bank estimated the Gini coefficient at 0.31 for 1986, while researchers using household survey data calculated coefficients of 0.34 for 1988 and a much higher 0.42 for 1995. In comparative terms, these estimates suggest that a considerable shift has occurred in the PRC from low to moderate rural income inequality. Moreover, as the figures in Table 7 reveal, rural inequality varies enormously from province to province.²⁵

From analysis of the 1988 data above, the most important variable driving income inequality across rural households appears to be location. As discussed earlier, the gains from recent growth have been concentrated in the highly productive and outward-oriented coastal provinces from Guangdong to Shandong, where rural industry has flourished through the development of TVEs. In such areas, rural incomes have risen far more rapidly than in many of the upland areas in the northwest, northeast, and southwest, where productivity gains have been more difficult to sustain and rural industry has developed more slowly (see Table 7). In 1988, when the typical rural household earned 3,800 *yuan*, residing in Guangdong or Zhejiang added an estimated 2,300 *yuan* or 909 *yuan*, respectively, to family income, holding constant household-related factors, whereas residing in Heilongjiang or Shaanxi reduced income by 1,700 *yuan* or 765 *yuan* (see Khan 1993,106). Using cruder official data, average per capita rural income in the richest province in 1980 was less than twice that of the poorest, but by 1996 it was over three times higher. Although rural wages

²³Officials and researchers commonly estimate that by 1998, there were at least 100-120 million rural residents employed on a permanent or semipermanent basis in urban areas.

²⁴The Gini coefficient is a common measure of inequality ranging from zero, or perfect equality, to one, perfect inequality. The PRC's Gini coefficients have been revised several times by the World Bank analysts, as explained in World Bank (1985, 29) and Khan et al. (1993, 60-1).

²⁵Even within provinces, rural income varies considerably from county to county (see Cook 1996), whose analysis was based on county-level data from Shandong.

are sensitive to personal characteristics,²⁶ institutional forces also affect income levels. In poorer regions, where wages appear to be higher than the supply price of labor, and thus contain a degree of economic rent, lowering industrial wages would likely help to reduce intraregional rural inequality and might allow poorer areas to compete more successfully with wealthier areas.

Table 6: **Comparison of Income Inequality—The PRC and Other Developing Countries**

Country, Year	Income Shares				Gini Coefficients		
	Rural		Urban		Rural	Urban	Overall
	Poorest 40%	Richest 20%	Poorest 40%	Richest 20%			
PRC, 1979-80 ^a	20.1	39.4	30.0	28.2	0.26-0.28	0.16	0.33
1982 ^a	n/a	n/a	n/a	n/a	0.22	n/a	n/a
1988 ^b	20.0	41.0	26.0	35.0	0.34	0.23	0.38
1995 ^b	16.4	48.9	24.3	41.8	0.42	0.33	0.45
Bangladesh, 1966-67	19.9	41.7	17.1	47.2	0.36	0.37	0.37 (1985)
Brazil, 1960	n/a	n/a	n/a	n/a	n/a	n/a	0.54
Chile, 1958	n/a	n/a	n/a	n/a	n/a	n/a	0.44
Colombia, 1964	n/a	n/a	n/a	n/a	n/a	n/a	0.62
El Salvador, 1965	n/a	n/a	n/a	n/a	n/a	n/a	0.53
India, 1975-76	20.2	42.4	16.9	48.8	0.34	n/a	0.42
Indonesia, 1976	16.4	46.0	16.0	49.4	0.40	0.43	0.32 (1987)
Iraq, 1956	n/a	n/a	n/a	n/a	n/a	n/a	0.60
Ivory Coast, 1959	n/a	n/a	n/a	n/a	n/a	n/a	0.43
Jamaica, 1958	n/a	n/a	n/a	n/a	n/a	n/a	0.56
Malaysia, 1970	12.2	54.8	11.2	56.5	0.50	0.52	0.36 (1957)
Mexico, 1963	n/a	n/a	n/a	n/a	n/a	n/a	0.53
Pakistan, 1970-71	21.9	38.8	19.1	44.4	0.30	0.36	0.37 (1963)
Peru, 1961	n/a	n/a	n/a	n/a	n/a	n/a	0.61
Philippines, 1971	7.3	46.7	13.7	54.1	0.39	0.47	0.48 (1961)
Sri Lanka, 1969-70	18.6	42.5	16.3	47.5	0.35	0.41	n/a
Thailand, 1975-76	17.8	46.5	17.5	46.6	0.39	0.40	0.47
Zambia, 1959	n/a	n/a	n/a	n/a	n/a	n/a	0.48

^a Estimated by the World Bank on the basis of official data that exclude the value of housing, certain subsidies, and income in kind.

^b Estimated by researchers using independent household survey data that include the value of housing, various subsidies, and production for self-consumption (valued at market prices).

Sources: Griffin and Zhao (1993, 8); Khan et al. (1993, 40, 44, 60-1); World Bank (1983, 88-9, 92); Fields (1980, 65-6); Khan and Riskin (1997, 237-48).

²⁶ Knight and Song (1993) found that individual factors also help determine access to wage employment, with the likelihood of obtaining an industrial job rising with being male, a Party member, and well-educated.

Table 7: Comparison of Provincial Income Inequality

Province	Nominal Per Capita Income ^a					Real Average Annual Income Growth 1980-96 (%) ^b			Gini Coefficient ^c	
	Rural		Urban			1996	Rural	Urban	Rural	Urban
	1980	1989	1996	1980	1989					
Coastal										
Shandong	194	631	2086	415	1254	4494	7.3	6.3	0.29	n/a
Jiangsu	218	876	3029	433	1372	4689	8.5	5.5	0.38	0.16
Zhejiang	219	1011	3463	430	1649	6345	9.2	7.1	0.29	n/a
Fujian	172	697	2492	391	1398	4586	9.0	5.9	0.29	n/a
Guangdong	274	955	3183	462	1947	7488	6.4	7.9	0.31	0.25
Other										
Liaoning	273	740	2150	467	1289	3746	5.6	4.3	0.33	0.15
Jilin	236	624	2126	337	1020	3454	6.3	5.7	0.35	n/a
Heilongjiang	205	535	2182	358	1034	3325	6.7	4.8	0.37	n/a
Anhui	185	516	1608	349	1134	4027	5.2	6.5	0.25	0.19
Henan	161	457	1579	357	1015	3450	7.3	5.9	0.30	0.19
Hubei	170	572	1864	400	1146	3855	6.7	4.8	0.23	0.16
Hunan	220	558	1792	438	1304	4280	4.1	4.6	0.26	n/a
Sichuan	188	494	1453	360	1226	4000	4.7	5.8	0.27	n/a
Shaanxi	143	434	1165	381	1148	3487	4.6	4.5	0.29	n/a
Gansu	153	366	1101	403	1133	3108	3.9	3.7	0.27	0.22
Ningxia	178	522	1398	438	1105	3277	4.8	3.6	0.27	n/a
Mean	199	624	2042	401	1261	4226	6.3	5.4	0.30	0.19
Coef. of Var.	0.19	0.29	0.33	0.10	0.19	0.27	0.26	0.21	0.14	0.18
High/Low	1.92	2.76	3.15	1.39	1.92	2.41	2.36	2.19	1.65	1.67

^a Figures based on official data and represent net rural income and urban income available for living expenses.

^b Each nominal income figure was deflated by the province-specific rural/urban consumer price index.

^c Calculated by Khan et al. (1993) on the basis of independent household survey data.

Sources: SSB *China Statistical Yearbook* (1997); provincial statistical yearbooks (various years); and Khan et al. (1993, 53).

Changes in Urban Income and Income Distribution

Urban residents have also been obvious beneficiaries of recent economic reform and growth. Beginning initially in the late 1970s and particularly after urban reforms led to swift growth in urban industry and services in the mid-1980s, urban wages and household incomes rose rapidly. Between 1978 and 1996, the average real urban wage (outside the private sector) more than doubled while average per capita urban income increased at a real average annual rate of 6.2 percent (Table 5). However, as with official rural income data, these figures understate real income levels by excluding certain sources of income as the value of housing, income in kind, and numerous subsidies.²⁷

²⁷ One study found that these benefits added 55% to the State Statistical Bureau's income figures for 1988 (see Khan et al. 1993). Urban reforms requiring residents to pay for more of their housing, health care, and other services should reduce their implicit income levels.

Like rural income distribution, the available evidence suggests that urban income inequality has increased significantly since the early reform period. As shown in Table 6, the share of total income received by the poorest urban residents declined from 1988 to 1995 as the share of the wealthiest rose. Estimated Gini coefficients, although calculated on the basis of different data, indicate a sharp upward climb from 0.16 in 1980 to 0.33 in 1995. In the developing world as a whole, the PRC's urban inequality is not extraordinarily high, but the pace of rising inequality is somewhat alarming. The survey data from which these inequality measures were estimated also include only those households registered by the government as urban. They exclude incomes of the growing number of rural workers employed in cities who officially remain "rural" residents. Since these laborers are usually employed in low-wage construction, industrial, and service jobs, exclusion of their incomes almost certainly leads to understated income inequality. Moreover, the province-specific Gini coefficients estimated for 1988 (Table 7) suggest that, like rural incomes, distribution of urban incomes varies considerably among provinces.

The increase in urban inequality partly stems from widening disparities across different parts of the PRC. Like the rural economy, income growth in urban centers has generally been fastest in the dynamic coastal provinces of the PRC, which enjoy easier access to foreign investment, more sophisticated populations, and especially rapidly growing urban industry and services. Even accounting for relative price increases, interregional urban income differentials widened substantially between 1980 and 1996 (see Table 7). Within urban areas, the emergence of a more market-oriented labor system has also spurred rising income inequality in three main ways. First, liberalization of formal labor and wage controls, together with increasing layoffs among debt-ridden SOEs has broadened the income range of state-sector workers. Second, the rising urban employment share of non-SOEs, especially privately-owned businesses, has created a dynamic urban sector characterized by a broad mix of very high and low wage jobs.²⁸ Third, the enormous influx of rural job-seekers has increased the number of workers at the bottom of the urban pay scale, even as average urban wages continue to climb.

A critical determinant of the future welfare of urban residents will be what happens to overall GDP and employment growth in the next few years. As of mid-1998, the combination of the Asian crisis and SOEs and other domestic reforms appeared to be slowing the previously very swift pace of economic and job growth. Urban unemployment rose gradually throughout the 1990s, but jumped to alarming levels in 1997, as a result of SOE reforms in particular. In official terms, which vastly understate actual figures, the number of urban unemployed rose from 3.5 million in 1991

²⁸ Official SSB figures suggest that the SOE share of urban employment declined from about 75 to 56 percent from 1980 to 1996, as the private sector share rose from virtually nil to 12 percent (see SSB *China Statistical Yearbook* 1997, 96-7). However, as these figures understate actual private employment, the fall in the SOE share is greater. For an estimate of urban private employment growth, see Sabin (1994).

to 5.5 million in 1996, and stood at 8 million in October 1997. Many local governments have sought to create jobs for laid-off urban residents by returning rural migrant workers back to the countryside, an unfortunate tactic reminiscent of the administrative controls typical of the PRC's prereform command economy. In the spring of 1998, threats of urban unrest prompted the central government to issue a circular emphasizing the importance of reemployment programs and plans to encourage further development of the private service sector, a policy which may ease the shift of surplus workers out of state-owned manufacturing enterprises (*China Daily* 1998).

In broad terms, employment growth over the next decade will depend upon job growth in the urban and rural economies as well as the subsectors within them, as detailed in Table 8. If employment growth slows substantially in the two most dynamic sectors—the urban nonstate sector and the rural off-farm sector—there will be insufficient job growth for both urban workers and rural surplus labor. If, however, employment growth in these sectors remains close to 1990-96 levels, and what now comprises the state sector grows at even a very modest rate, then job growth will outpace the increase in new job-seekers and a large number of rural workers will be able to shift out of agriculture and into the more modern urban and industrial sectors without threatening the job opportunities of the urban workforce.

Relative and Absolute Poverty

In view of the above discussion, it is not surprising that available estimates of the PRC's income distribution across the country as a whole indicate a striking rise in inequality during the reform years. As shown in Table 8, Gini coefficients for overall income inequality increased from a relatively low 0.33 in 1979-80 to 0.38 in 1988 (see Table 6), and then to 0.45 in 1995, making the PRC's income distribution one of the most unequal in Asia.

Growing interregional disparities between coastal and interior regions and between urban and rural areas are a major force in this shift.²⁹ Both are long-standing inequalities influenced by development patterns as well as by deliberate policies. Before the reform period, the government essentially institutionalized urban-to-rural income disparities by maintaining low agricultural prices and restricting rural-to-urban migration. More recently, income growth has generally been swiftest in urban areas, while market-oriented reforms and the promotion of foreign trade and investment

²⁹In theory, this trend could be demonstrated with Gini coefficients calculated from province-based average per capita income data for selected years during the reform period. In practice, however, aggregation at the provincial level necessarily reduces much of the true variation in household incomes across the PRC. The resulting Gini coefficients, while rising after the mid-1980s and especially after 1990, therefore tend to be quite low and do not provide a very meaningful measure of rising income inequality in recent years.

Table 8: Labor Supply and Employment Trends

Figures in millions or percent	1980	1990	1996	2010 ^a	
				(1)	(2)
Working Age Population					
Total persons ^b	n/a	754.5	822.4	979.0	979.0
Employment ratio ^c	n/a	84.7	83.7	85.5	76.6
Employment					
Total	423.6	639.1	688.5	837.4	749.8
Urban ^d	96.8	157.8	191.8	302.6	253.1
State sector	72.2	95.5	106.5	125.2	105.4
Nonstate sector	24.6	62.3	85.3	177.4	147.7
Rural	326.9	481.3	496.7	534.9	496.7
Agriculture	306.6	341.8	329.0	277.1	275.4
Off-farm	20.3	139.5	167.7	257.8	221.3
Employment Growth (%)					
(Average Annual)	<u>1980-90</u>	<u>1990-96</u>		<u>1996-2010</u>	
			(1)	(2)	
Total	4.20	1.25	(1.41)	(0.61)	
Urban ^d	5.01	3.31	3.31	2.00	
State sector	2.84	1.84	(1.16)	(-0.10)	
Nonstate sector	9.74	5.37	5.37	4.00	
Rural	3.94	0.53	0.53	0.00	
Agriculture	1.09	-0.63	(-1.22)	(-1.26)	
Off-farm	21.26	3.12	3.12	2.00	

^a The working-age population in 2010 is estimated using 1995 census data, adjusted for attrition (based on 1990-95 attrition). Estimated employment is calculated from the growth rates at the bottom of the table, where the rates in () result from the assumed rates outside (). Case (1) assumes the same average annual growth rates in the overall urban and nonstate sectors and in the overall rural and off-farm sectors, as from 1990-96. Case (2) assumes lower growth rates.

^b Figures take persons aged 15-64 as the working age population rather than the narrow official Chinese definition (16-54 for women and 16-59 for men), because many urban Chinese do not in fact retire at the official age and most rural Chinese work longer if they are able.

^c Rather than calculate the participation rate (the ratio of employed plus unemployed persons to total working age persons), due to inadequate data, the employment ratio (the ratio of employed persons to total working age population) is provided. Due to large numbers of rural underemployed workers, this ratio is also deceptive, but it does convey a sense of the changes over time in the proportion of working age persons who are at least casually employed.

^d State and nonstate sector agricultural workers are counted here as rural agricultural workers.

Sources: SSB *China Statistical Yearbook* (1997, 62-3; 1996, 69-72; 1991, 79-9; and 1986, 101).

have favored the natural attributes of coastal areas. As a result, regional disparities are now profound, with incomes in the richest provinces 2-3 times those in the poorest.³⁰ Similarly, after first shrinking in the late 1970s and early 1980s, and despite significant rural-to-urban migration and large increases in rural incomes in the mid-1990s, the urban-to-rural income gap has steadily widened since the mid-1980s. Average (net) urban incomes were nearly 2.3 times rural incomes at the end of 1996, a greater gap than in most developing countries.³¹ The continued subsidization of services, especially housing, which are denied nonofficial urban residents, reinforces these income differentials, as underscored by the finding of a recent study that urban housing subsidies and the rental value of owned urban housing are the greatest sources of overall income inequality in the PRC (see Khan and Riskin 1998).

Continued interregional migration, especially rural-to-urban flows, will be extremely important in helping keep regional disparities at a minimum. Although local governments cannot really control these flows without a major change in policy, both the central and local governments have tended to view the influx of rural migrants with alarm rather than seeking to ease their way into the urban economy. It is true that the magnitude and pace of this population shift strain urban resources, with enormous pressure on urban housing, transport, medical care, and schools, though lack of formal urban status means that rural migrants are often unable to access social services. On the whole, however, there is no doubt that rural-to-urban migration has benefited not just rural workers and urban employers and consumers, but also the PRC's broader rural society. Rural out-migration has eased underemployment in villages and remittances flowing in the opposite direction have provided a valuable source of investment funds and played a key role in alleviating rural poverty.

To truly bridge the urban-rural divide, Chinese leaders need to allow the absorption of rural workers and their families into the current urban social service and welfare system. Despite reforms in the provision of urban services such as housing and health care, registered urban workers continue to enjoy preferential access to many urban services through their work units. As a result, rural migrants are still frequently housed in makeshift shacks and lack access to schools and health facilities. A critical test of urban reform will therefore be completing the delinkage of such services from formal residence status and work unit connections to reduce the gap in living standards between registered urban families and rural migrants. Continuing to raise the cost of housing and other services to urban residents should be a key element of this process, both for equity reasons and to avoid bankrupting city governments, even though this is unpopular and therefore politically risky.

³⁰ A recent study that made use of 1952-93 data found that average provincial (rural and urban) per capita incomes converged from 1978 to 1990 and then began to diverge, driven primarily by coastal versus inland income disparities (see Jian et al. 1996).

³¹ This is clear from the income gaps ranging from 1.5 to 2.4 provided in Zhao (1993, 83).

Above and beyond the issue of relative poverty is the problem of absolute poverty—those Chinese who have yet to benefit in any meaningful way from recent reform and growth. Though measures of poverty incidence vary, there is broad agreement that poverty reduction in the PRC since the late 1970s has been a clear success that sharply contrasts with the experience of many transition economies. The best poverty estimates appear to be those of the World Bank,³² which previously used Chinese standards of welfare and entitlement (based on caloric intake and nonfood subsistence) to estimate that the total number of Chinese living in poverty declined dramatically from 270 million (28 percent of the population) in 1978 to 97 million (9 percent) in 1985.³³ Recently, however, the Bank revised its estimates on the basis of an international poverty threshold which is about two thirds higher than the Chinese-defined poverty line.³⁴ According to this latest definition, the number of absolute poor in the PRC fell over the same period from about 580 million (nearly 60 percent of the population) to just under 450 million (just over 40 percent).³⁵

Regardless of the precise numbers, the major force behind the decline in poverty was broad participation in reform-driven agricultural growth. But slower growth in upland areas in the second half of the 1980s essentially stymied further progress until the early 1990s, despite the establishment of a broad poverty alleviation program in the mid-1980s. Since then, the absolute poor have typically been people living in remote villages and towns in resource-deficient rural regions, where even the most basic needs of individuals and families are unmet. In large part, these communities have remained mired in poverty because increases in funding for education and health since the late 1970s have tended to benefit the urban population and middle and upper income rural inhabitants rather than the poorest areas. Although poverty remains principally a rural phenomenon, the number of urban poor has been on the rise in recent years, mainly due to rising unemployment and more costly access to urban services.

Rising domestic and international concern prompted the Chinese government in 1994 to launch a targeted intervention program—widely known as the 8-7 Plan—to completely eliminate poverty in the PRC by the year 2000. At the core of the plan is increased government funding to develop small-scale and labor-intensive economic activities, improve access to such basic needs as adequate drinking water, primary education, and health care, reduce the isolation of poor communities by extending

³²This is mainly because SSB poverty lines for the 1980s do not adequately adjust for price changes. See World Bank (1992) for a detailed explanation.

³³See World Bank (1992), which contains the Bank's earlier poverty figures and analysis of the important factors affecting Chinese poverty.

³⁴The international standard is based on \$1 per person per day, using the purchasing power parity method of exchanging local currencies for dollars. In comparison, the lower Chinese standard works out to be about \$0.6 per person per day (World Bank 1996).

³⁵In the case of the original estimate, approximately one million urban Chinese comprising less than one percent of the urban population still lived in poverty in 1985.

roads and electricity, assist rural laborers to migrate to urban areas, and help households in the most remote and resource-poor regions to resettle in more productive areas. Using the Chinese-defined poverty line, the latest available figures suggest that the 8-7 program helped reduce the number of absolute poor to about 65 million in 1996, of which between 11 and 12 million were urban residents. Using the higher World Bank standard, the figure stood at about 350 million.³⁶ Regardless of the precise figure, however, improving the living standard of the PRC's absolute poor is essential to achieving a more equitable distribution of the gains of economic reform and growth.

Continued Growth with Equity

In light of the PRC's experience during the reform era and likely future trends, how can we expect the gains of future economic growth to be distributed? To the extent that the PRC's leaders actively seek to share these gains as broadly as possible, what are the major challenges they will face? The discussion above points to several key issues that will help determine the answers to these questions.

One important issue will be the way in which future reforms are carried out. Real reform of SOEs, combined with the elimination of all permanent jobs, could result in even more substantial levels of urban unemployment and an enormous increase in the number of urban poor. This threat could continue to delay such reforms. If they are carried out, however, the resulting distributive inequalities will be minimized to the extent that an effective social welfare net is in place to assist those workers and families hurt in the process. Central and local governments have been scrambling in recent years to establish just such a welfare net, but thus far it remains incomplete just about everywhere in the PRC.

The PRC also faces a complex set of problems revolving around wide and growing coastal versus interior and urban versus rural inequalities. A great deal of attention has been focused on the former issue in particular. In response, the PRC's leaders might be tempted to try to divert major resources away from the coastal provinces toward slower-growing inland regions, as they did in the 1960s and 1970s. Barring a major change in leadership and development strategy, however, this is unlikely to happen for two reasons. First, the power of the central government to control local investment is far more limited now than even a decade ago. Second, even more conservative officials recognize that restricting investment in the most vibrant and efficient part of the country would significantly hinder overall economic development in the PRC. A more productive approach would be to stress gradual but steady improvement of human and physical capital in interior regions, through in-

³⁶The official estimates were provided by researchers at the Institute of Population Studies at Beijing University. The latest Bank estimate is from World Bank (1996).

vestment in education and urban infrastructure, including transportation. Such an approach would enhance the long-term ability of these areas to compete with coastal regions and thus help equalize income distribution throughout the country. At the same time, efforts should be made to create more forward and backward linkages between inland and coastal parts of the country to promote more rapid development of the former.

The most pressing issue arising from interregional disparities is how the PRC will handle the massive rural-to-urban population shift that is already well under way. Government leaders have vacillated on the extent to which they wish to manage the influx of rural migrants into already crowded cities, but in fact, this phenomenon is largely out of their control. Unless officials resort to draconian measures and evict migrants from cities, as they did in the late 1980s, rising numbers of rural laborers will continue to migrate into cities in search of jobs. To achieve distributive and other goals, they should clearly be allowed to do so. This said, migrants and their families will need access to an array of urban social services which they are often now denied due to their official "rural" status. In particular, basic housing, health care, and elementary education must be made available at affordable prices to all residents in order to reduce the inequalities between migrants and registered urban residents. Ideally, this should be done by completely de-linking such services from formal residence status and work units. Whichever way urban services are expanded, however, doing so in a gradual fashion may help discourage even greater numbers of rural migrants from completely overwhelming the PRC's urban infrastructure.

Finally, how will the PRC deal with the substantial number of people who remain in absolute poverty? Will the government's efforts to eliminate poverty in the PRC by the year 2000 succeed? At the very least, the new 8-7 Plan gives an unprecedented degree of attention to those whose living standards have yet to be fundamentally improved by the PRC's rapid economic growth. History suggests that if the government can avoid pouring massive resources into economically nonviable areas, and instead emphasize small-scale, labor-intensive projects, it will have a greater chance of reducing poverty. To the extent people living in the most destitute regions are allowed or even encouraged to move to more productive places, including the small urban areas the government plans to develop, the more likely it is that the twin goals of successfully managing the transition to a modern urban economy and broadly distributing the fruits of growth will be achieved.

Conclusion

The PRC's economy has experienced major successes over the 20 years of the reform period. The economic growth rate has been high and a great majority of the population has shared in the benefits of that growth. Poverty on average and across

most regions of the country has declined markedly. Much of this growth and reduction in poverty can be directly attributed to the reforms. The reforms led to marked improvements in productivity and freed up the population to seek better opportunities throughout the country. For the most part, these reforms have been carried out without sustained macroeconomic imbalances such as high inflation or chronic balance of payments problems.

But there are major problems remaining, and, if they are not corrected, the PRC's 20 years of rapid development could come to an end. The PRC avoided the Asian financial crisis of 1997 largely because of its strong balance of payments and foreign exchange reserve positions, but the PRC will not necessarily avoid negative long-term consequences from weak institutions if the country fails to complete the reform process. The list of reforms that are only partially completed is a long one. The reform of the banking system and the state-owned enterprises has only just begun and commitment to completing the process is not as clear as it might be. Underlying the problem of specific institutions that need to be changed or created from scratch is the question of whether the PRC will ever become a nation governed by the rule of law. The PRC's step by step approach to reform served it well during the first two decades of reform and a step by step approach may still be appropriate in some sectors and with some institutions. But a step by step or gradual approach can also become an excuse for not completing the job.

Finally, the reforms have also contributed to or created new problems that did not exist to the same degree in the pre-reform era. The rise in inequality in the PRC is unusually rapid for such a short period and could threaten the support for reform and the stability of the system itself if little is done to ameliorate this rise. Large-scale internal migration within the PRC—rural to urban and rural to rural—is basically a positive development. Over time it can markedly reduce some of the regional income disparities that now play such a large role in the PRC's overall level of inequality. But a continuation of the current rules whereby new migrants receive few of the benefits available to long-term urban residents is a formula for instability. Rising inequality leading to even heavier migration out of the poorer areas into large pockets of poverty in the cities is the likely outcome of present policies. The challenge is to find ways to reduce the overall level of inequality while improving the lot of those who do migrate to the cities, without either stimulating even more migration or slowing growth.

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