

# China's Rise in the Medium Term Perspective:

**an Interpretation of Differences in Economic  
Performance of China and Russia since 1949**

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## **Resumo**

Este artigo tenta interpretar o recente crescimento chinês sob uma perspectiva de longo prazo e tendo como comparação a performance econômica russa. Primeiro, afirma-se aqui que a recente liberalização da economia produziu resultados espetaculares (1979 em diante) porque a estratégia de reforma foi muito diferente do consenso de Washington (gradual ao invés da instantânea desregulamentação dos preços, sem privatizações em massa, forte política industrial, baixa valorização do câmbio por meio da acumulação de reservas). Segundo, o recente sucesso chinês (1979 em diante) possui bases nas conquistas do período do governo Mao (1949-76) – forte instituições estatais, governo eficiente e o aumento do capital humano. Diferentemente da antiga União Soviética, essas conquistas não foram desperdiçadas na China devido à gradual e não brusca democratização que, por sua vez, tornou possível uma aproximação passo a passo para a liberalização econômica.

## **Abstract**

This paper is an attempt to interpret recent rapid Chinese growth in a longer term perspective and in comparison with Russian economic performance. First, it is argued that recent economic liberalization produced spectacular results (1979-onwards) because the reform strategy was very different from the Washington consensus package (gradual rather than instant deregulation of prices, no mass privatization, strong industrial policy, undervaluation of the exchange rate via accumulation of reserves). Second, recent Chinese success (1979-onwards) is based on the achievements of the Mao period (1949-76) – strong state institutions, efficient government and an increased pool of human capital. Unlike in the former Soviet Union, these achievements were not squandered in China due to gradual rather than shock-therapy type

## Transition period (China – from 1979, Russia – from 1989): gradualism versus shock therapy

**T**he acceleration of economic growth in China after the market-oriented reforms were introduced since 1979 is in sharp contrast to the decline of the Russian economy that occurred in 1989-98, during the transition to a market-based system. The economic performance of the successor states of the former Soviet Union (FSU) has also been disappointing. GDP has fallen by roughly 50 per cent in the FSU from its pre-recession level of 1989 (fig. 1, 2). Investment fell by even more. Income inequality has greatly increased—so that most people have seen

a real income decline—and life expectancy has dropped sharply (death rates have risen by about 50 per cent).

In FSU states that were severely affected by conflict (Armenia, Azerbaijan, Georgia, Moldova and Tajikistan), GDP was only 30 to 50 per cent of

its pre-transition levels by the late 1990s. Even in the Ukraine (which wasn't affected by military conflict) GDP fell by nearly two thirds (fig. 2).

Such output loss is unprecedented in recent history. During the Second World War the national income of the USSR fell by 20 per cent over 1940-42. But national income recovered its 1940 level by 1944 and—despite falling again by 20 per cent over 1944-46 as military industry was converted—it was 20 per cent above its 1940 level by 1948. GDP in Western countries fell by an average of 30 per cent during the Great Depression (1929-33). But by the end of the 1930s it had recovered its pre-recession levels.

Most other transition economies did better than the FSU states. In Eastern Europe, the fall in output continued for 2 to 4 years and totaled 20 to 30 per cent. But at least Central Europe is now above its pre-transition output level. In China and Vietnam there was no transformational recession at all—on the contrary, economic growth accelerated from the start of reform. Why has the FSU experienced one of history's worst declines in output and living standards? Is the collapse due to initial conditions and circumstances (i.e. predetermined and hardly avoidable)? Or do poor policy choices play a greater role? And whyed China avoid transformational recession?

There is a vast literature that seeks to explain different outcomes of market-type reforms in two countries. It was pointed out that initial conditions were different (rural sector accounted for a greater share of the Chinese economy), that China pursued the strategy of gradual reforms (dual track price system and no major privatization), whereas Russia tried to embark on shock therapy, that macro-economic policies in China were much more prudent than in Russia. However, differences among scholars persist: the Chinese experience certainly contradicts the conventional wisdom (Washington consensus) that suggests that rapid shock therapy type reforms are supposed to be more conducive to economic growth than step by step gradualism.

This latter conclusion still remains most controversial, the emerging consensus today, if any, seems to be that performance is largely determined by the institutional capacity (the factor that was overlooked in the earlier debates), but economic liberalization still matters a great deal (DE MELO et al., 1997; HAVRYLYSHYN; VAN ROODEN, 2003). The theoretical argument in favor

In China and Vietnam there was no transformational recession at all

Fig. 1. GDP in 2004 as a % of 1989

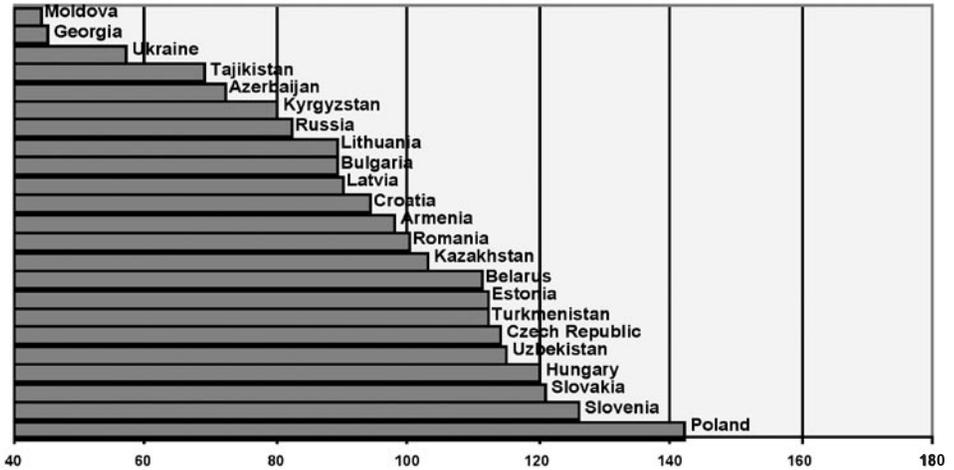
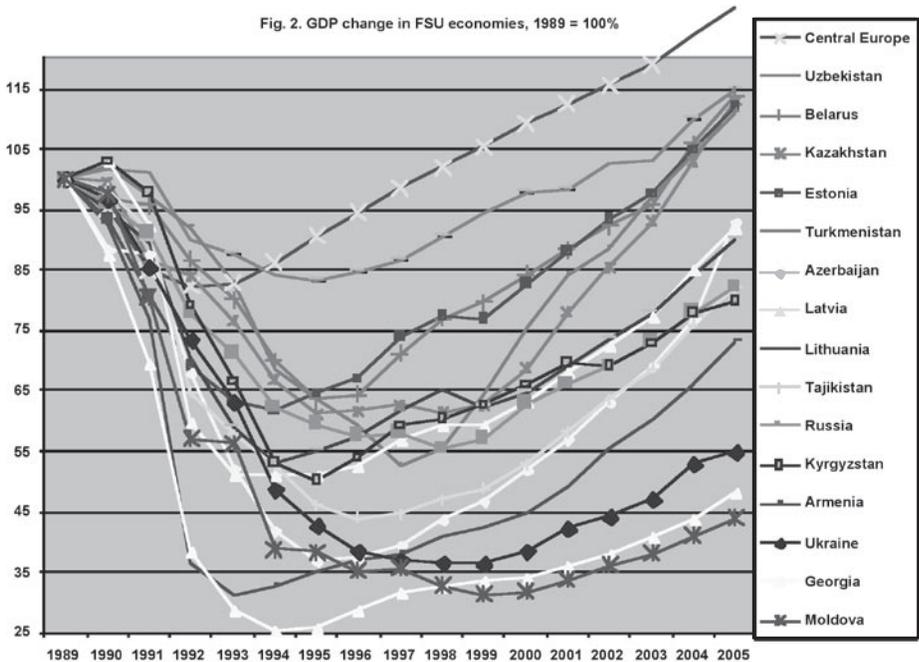


Fig. 2. GDP change in FSU economies, 1989 = 100%



of the positive impact of liberalization on performance is quite strong: the market economy should be more efficient than the centrally planned economy, so there is a “marketization dividend” to be reaped, and the faster economic liberalization occurs, the

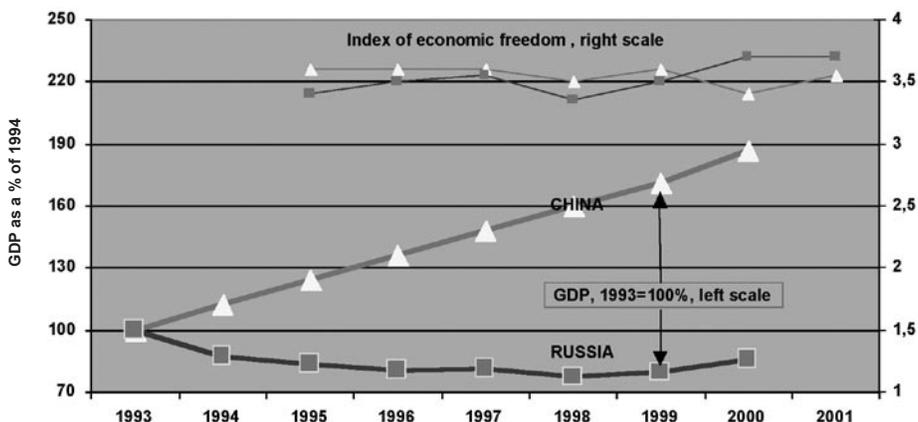
better should be the performance. However, there are a number of obvious facts that do not fit into the scheme.

First, China – the only country that carried out classical gradual transition (with slow deregulation of prices – dual

track price system) outperformed impressively all other transition economies, and of course the Chinese example is too important to ignore (**fig. 3**). Second, the comparison of Vietnam and China - two countries that shared a lot of similarities in initial conditions and achieved basically the same results (immediate growth of output without transformational recession) despite different reform strategies. While Chinese reforms are a classical example of gradualism, Vietnamese reformers introduced Polish style shock therapy treatment (instant deregulation of most prices and introduction of convertibility of the dong) even before Poland did, in 1989, and still managed to avoid the reduction of output<sup>1</sup>. Third, differing performance of the former Soviet Union (FSU) states. The champions of liberalization and stabilization in the region were definitely the Baltic states (cumulative liberalization index by 1995 - 2.4-2.9), whereas Uzbekistan (with the same index of 1.1) is commonly

perceived to be one of the worst procrastinators. But in Uzbekistan the reduction of output in 1990-95 totaled only 18% and the economy started to grow again in 1996, while in the Baltics output fell in the early 1990s by 36-60% and even in 1996, two years after the bottom of the recession was reached, was still 31% to 58% below the pre-recession maximum. In 2004-2005, the list of countries that exceeded the pre-recession level of output in 1989 looked very much like a list of procrastinators in terms of economic liberalization and non-democratic regimes in terms of political liberalization: in addition to 5 central European countries and Estonia, there were also Turkmenistan, Uzbekistan, Belarus and Kazakhstan (see **fig. 1, 2**)<sup>2</sup>, not to speak about China and Vietnam. Thus, the case for gradual, Chinese-type reforms remains very strong and is very much favored by many academics and policy makers (see KOLODKO (2000) for an extensive summary of the debate).

**Fig. 3. Indices of economic freedom and GDP growth in Russia and China**



<sup>1</sup>While Vietnamese industry, excluding constantly and rapidly growing oil production, experienced some downturn in 1989-90 (-6% in 1989 and 0% in 1990) agricultural growth remained strong, so that GDP growth rates virtually did not fall (5-6% a year).

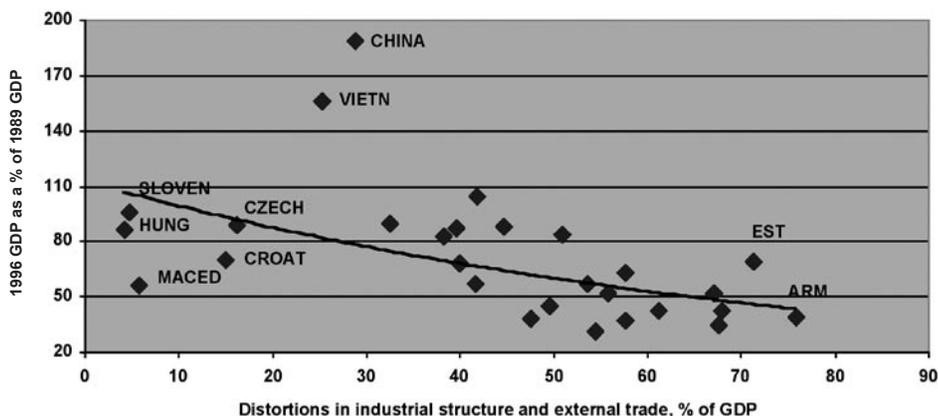
<sup>2</sup> **Fig. 1** is based on GDP indices (2004 as a % of 1989) reported in the EBRD Transition Report 2005, whereas **fig. 2** reports chain indices (based on annual growth rates) from the same source. The discrepancies are not that substantial.

## Reasons for differing performance during transition: initial conditions

My own research that compares the performance of 28 post-Communist economies (including China and Vietnam) during

output (fig. 4). Transformational recession, to put in economic terms, was caused by adverse supply shock similar to the one experienced by Western countries after the oil price hikes in 1973 and 1979, and similar to post-war recessions caused by conversion of the defense industries.

Fig. 4. Aggregate distortions in industrial structure and external trade before transition and GDP change during transition



transition (POPOV, 2000, 2007) points out the following factors of differing performance.

In the first approximation, economic recession that occurred during transition was associated with the need to reallocate resources in order to correct the industrial structure inherited from the centrally planned economy (CPE). These distortions include over-militarization and overindustrialization (resulting in the underdevelopment of the service sector), perverted trade flows among former Soviet republics and Comecon countries, excessively large size and poor specialization of industrial enterprises and agricultural farms (lack of small enterprises and farms). In most cases these distortions were more pronounced in former Soviet Union countries (FSU) than in Eastern Europe (EE), not to speak of China and Vietnam, – the larger the distortions, the greater was the reduction of

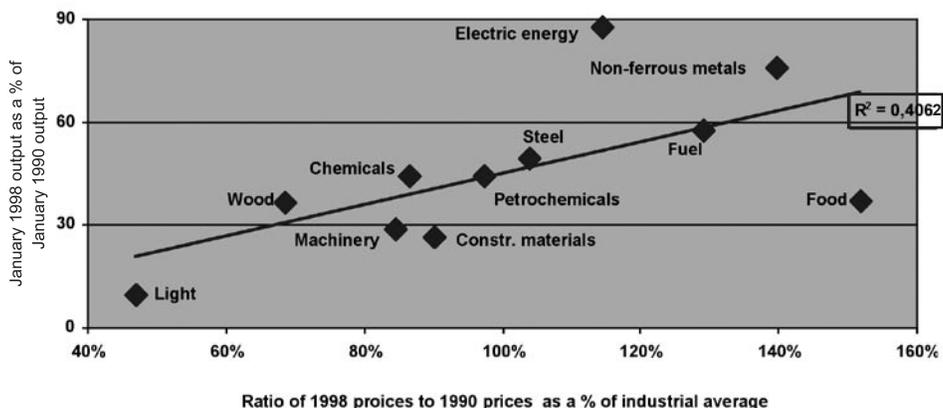
Note that the magnitude of the reduction of output during the transformational recession is determined by the size of pre-transition distortions only under shock therapy type instant deregulation of prices. Consider a country where deregulation of prices (or elimination of trade tariffs/subsidies) leads to a change in relative price ratios and thus produces an adverse supply shock for at least some industries. Capital and labor should be reallocated from industries facing declining relative prices and profitability to industries with rising relative prices. If reforms are carried out instantly, then output in the unprofitable sector falls immediately and savings for investment are generated only by the competitive sector, so that it takes a number of years to reach the pre-recession level of output. However, assume that reforms are carried out slowly

(gradual price deregulation or elimination of tariffs/subsidies), so that every year output in the non-competitive sector falls not completely, but at a natural rate, i.e. as its fixed capital stock retires in the absence of new investment. In this case it would be possible to avoid the reduction of total output because the decline of the non-competitive sector would be overcompensated by the growth of the competitive sector.

The example illustrates that there is a limit to the speed of reallocating capital from non-competitive to competitive industries, which is determined basically by the net investment/GDP ratio (gross investment minus retirement of capital stock in the competitive industries, since in non-competitive industries the retiring capital stock should not be replaced anyway). It is not reasonable to wipe

textbook example: an excessive speed of change in relative prices required a magnitude of restructuring that was simply non-achievable with the limited pool of investment. Up to half of their economies was made non-competitive overnight; output in these non-competitive industries was falling for several years and fell in some cases to virtually zero, whereas the growth of output in competitive industries was constrained, among other factors, by the limited investment potential and was not enough to compensate for the output loss in the inefficient sectors (POPOV, 2000). The reduction of output in Russian industries was higher in industries that experienced the greatest deterioration of their terms of trade (fig. 5).

Fig. 5. Change in relative prices and output in 1990-98 in Russian industry



away output in non-competitive industries faster than capital is being transferred to more efficient industries.

Market type reforms in many post-Communist economies created exactly this kind of a bottleneck. Countries that followed the shock therapy path found themselves in a supply-side recession that is likely to become a

Hence, at least one general conclusion from the study of the experience of transition economies appears to be relevant for the reform process in all countries: *provided that reforms create a need for restructuring (reallocation of resources), the speed of reforms should be such that the magnitude of required restructuring does not exceed the investment potential of the economy.* In short, the speed of adjustment and restructuring

in every economy is limited, if only due to the limited investment potential needed to reallocate capital stock. This is the main rationale for gradual, rather than instant, phasing out of tariff and non-tariff barriers, of subsidies and other forms of government support of particular sectors. (It took nearly 10 years for the European Economic Community or for NAFTA to abolish tariffs). This is a powerful argument against shock therapy, especially when reforms involved result in a sizable reallocation of resources. For Western countries with low trade barriers, low subsidies, low degree of price controls, etc. even fast, radical reforms are not likely to require restructuring that would exceed the limit of investment potential. But for less developed countries with a lot of distortions in their economies supported by explicit and implicit subsidies, fast removal of these subsidies could easily result in such a need for restructuring that is beyond the ability of the economy due to investment and other constraints.

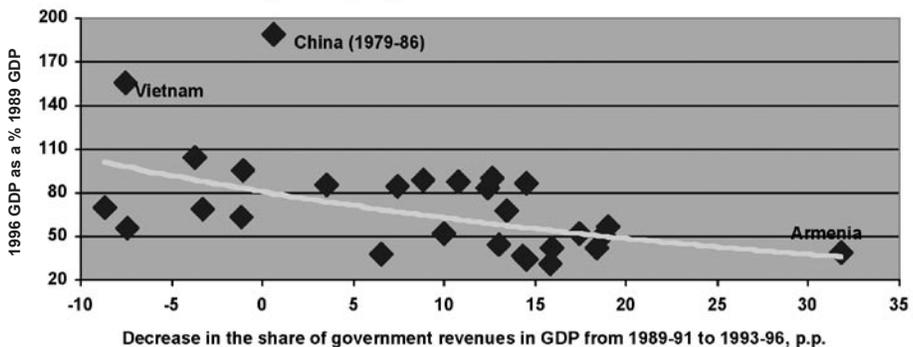
Such a reduction of output due to the inability of the economy to adjust rapidly to new price ratios is by no means inevitable, if deregulation of prices proceeds gradually (or if losses from deteriorating terms of trade for most affected industries are compensated by subsidies). The pace of liberal-

ization had to be no faster than the ability of the economy to move resources from non-competitive (under the new market price ratios) to competitive industries.

### Reasons for differing performance during transition: institutional capacity

The additional reason for the extreme depth and length of the transformational recession was associated with the institutional collapse, here differences between EE countries and China on the one hand and FSU on the other hand are striking. The efficiency of state institutions, understood as the ability of the state to enforce its own rules and regulations, resulted in the inability of the state to perform its traditional functions – to collect taxes and to constrain – the shadow economy, to ensure property and contract rights and law and order in general (Crime rates and corruption increased dramatically during transition as compared to the Communist past.). Naturally, poor ability to enforce rules and regulations did not create a business climate conducive to growth and resulted in increased costs for companies. The decline in the share of government revenues in GDP is strongly correlated to the dynamics of output during transition (**fig. 6**).

Fig. 6 Change in government revenues and GDP



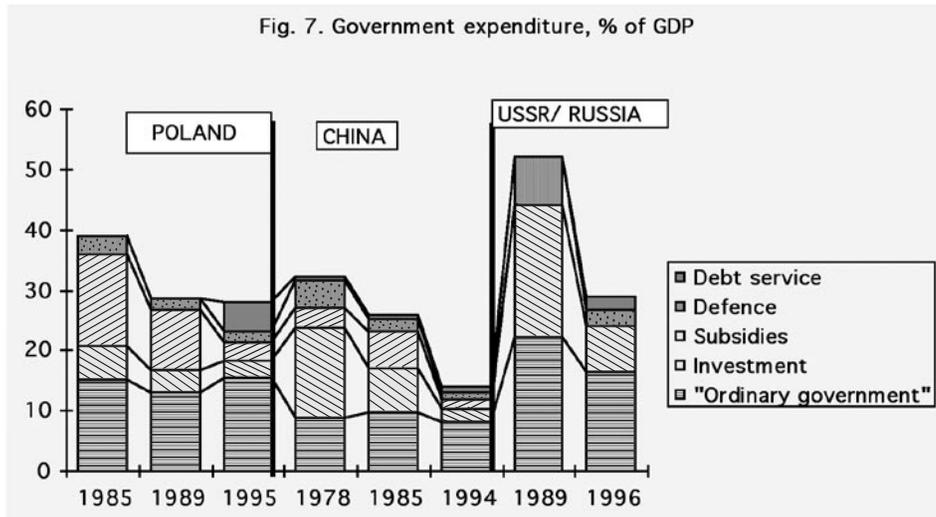
Source: (Popov, 2000).

It is precisely this strong institutional framework that should be held responsible for both – for the success of gradual reforms in China and shock therapy in Vietnam, where strong authoritarian regimes were preserved and CPE institutions were not dismantled before new market institutions were created; and for the relative success of radical reforms in EE countries, especially in Central European countries, where strong democratic regimes and new market institutions emerged quickly. And it is precisely the collapse of strong state institutions that started in the USSR in the late 1980s and continued in the successor states in the 1990s that explains the extreme length, if not the extreme depth of the FSU transformational recession.

Three major patterns of change in the share of government expenditure in GDP<sup>3</sup>,

distinct “models” of transition, are shown in **fig. 7**. Under *strong authoritarian regimes* (China) cuts in government expenditure occurred at the expense of defense, subsidies and budgetary financed investment, while expenditure for “ordinary government” as a percentage of GDP remained largely unchanged (NAUGHTON, 1997); under *strong democratic regimes* (Poland) budgetary expenditure, including those for “ordinary government”, declined only in the pre-transition period, but increased during transition itself; finally, under *weak democratic regimes* (Russia) the reduction of the general level of government expenditure led not only to the decline in the financing of defense, investment and subsidies, but to the downsizing of “ordinary government”, which undermined and in many instances even led to the collapse of the institutional capacities of the state.

Fig. 7. Government expenditure, % of GDP



which generally coincide with the three major archetypes of institutional developments, and even broader - with three most typical

While in China total budgetary expenditure and that for “ordinary government” are much lower than in Russia and Poland,

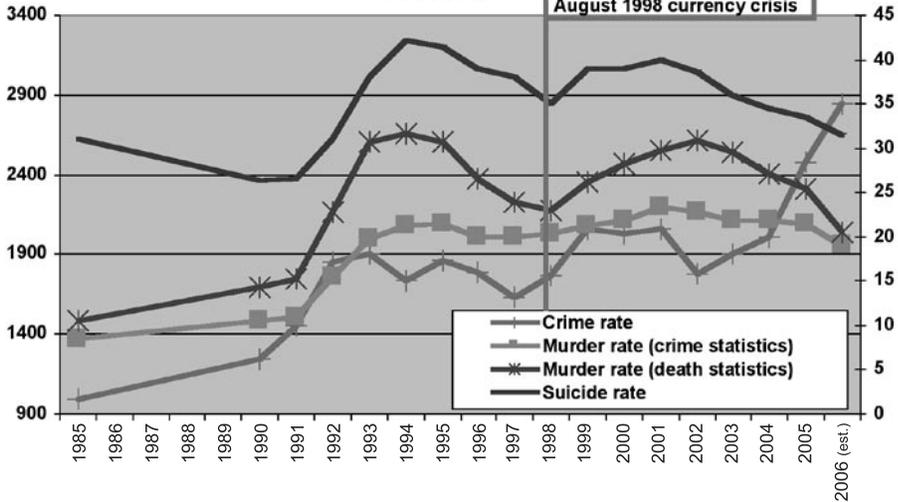
<sup>3</sup> Data for China (WORLD BANK, 1996), Russia (Goskomstat) and Poland (Rocznik Statystyczny 1990, Warszawa; and data from Institut Finansow provided by G. Kolodko) do not include off-budget funds, which are very substantial in all three countries and are used mostly for social security purposes. Defense expenditure are from official statistics, i.e. lower than Western estimates, which is likely to lead to overstatement of spending for investment and subsidies at the expense of defense outlays. For USSR/Russia investment and subsidies are shown together.

they were sufficient to preserve the functioning institutions since the financing of social security from the government budget was traditionally low. In Russia, however, though the expenditures for ordinary government seem to be not that much lower than in Poland, the pace of their reduction during transition exceeded that of GDP: to put it differently, given the various patterns of GDP dynamics,

economy are natural measures of the strength of the state institutions. The strong state may be more or less democratic - both China and Central European countries - with the murder rates of about 2 per 100,000 inhabitants have a stronger state than Russia with about 25-30 murders per 100,000 of inhabitants (fig.8).

Crime was rising gradually in the Soviet Union since the mid 1960s, but after the col-

**Fig. 8. Crime rate (left scale), murder rates and suicide rate (right scale) per 100,000 inhabitants**



while in Poland “ordinary government” financing grew by about one third in real terms in 1989-95/6 (and while in China it nearly doubled), in Russia it fell by about 2/3! The Russian pattern of institutional decay proved to be extremely detrimental for investment, and for general economic performance.

The strong/efficient state is the one that has the power to enforce its rules and regulations, no matter what are these regulations. Crime/murder rate and the size of the shadow

lapse of the USSR there was an unprecedented surge – in just several years in the early 1990s crime and murder rates doubled and reached one of the highest levels in the world (fig. 8)<sup>4</sup>. By the mid 1990s the murder rate stood at over 30 people per 100,000 of inhabitants against 1-2 persons in Western and Eastern Europe, Canada, China, Japan, Mauritius and Israel. Only two countries in the world (not counting some war-torn collapsed states in developing countries, where there is no reliable statistics

<sup>4</sup> Crime statistics is usually perceived to be incomparable in different countries because of large variations in the percentage of registered crimes. But murders are registered quite accurately by both criminal statistics and death (demographic) statistics. The first one is more restrictive than the second one, since it registers only illegal murders, whereas the second one – all murders, including “legal” (capital punishment and “collateral damage” during wars, antiterrorist and other police operations). Both rates skyrocketed in Russia in the beginning of 1990s and stayed at the extremely high levels until today. The gap between these two indicators widened during the first Chechen war (1994-96) and the second war (1999-2002) – fig. 13.

anyway) had higher murder rates – South Africa and Colombia, whereas in countries like Brazil or Mexico this rate is two times lower. Even the US murder rate, the highest in the developed world – 6-7 people per 100,000 of inhabitants – pales in comparison with the Russian one.

The efficiency of the government in Russia in recent years did not improve: different measures of corruption, government effectiveness and rule of law calculated by the World Bank do not register any considerable progress and are usually markedly lower than in China (fig. 9-12). In terms of the rule of law China does not stand the comparison with Russia – by

all counts China looks like a far more orderly and lawful country than Russia. In Russia low spending levels together with poor efficiency (output of government services per 1 ruble of spending) mean that the state simply cannot provide enough public goods. On the contrary, higher government effectiveness together with the increase in government spending in China in recent years<sup>5</sup> allowed the timely delivery of public goods for the growing private economy. The anecdotal evidence and naked eye observations suggest that the government in China is going ahead of the private sector, whereas in Russia it is far behind.

Fig. 9. Corruption perception indices (Transparency International)

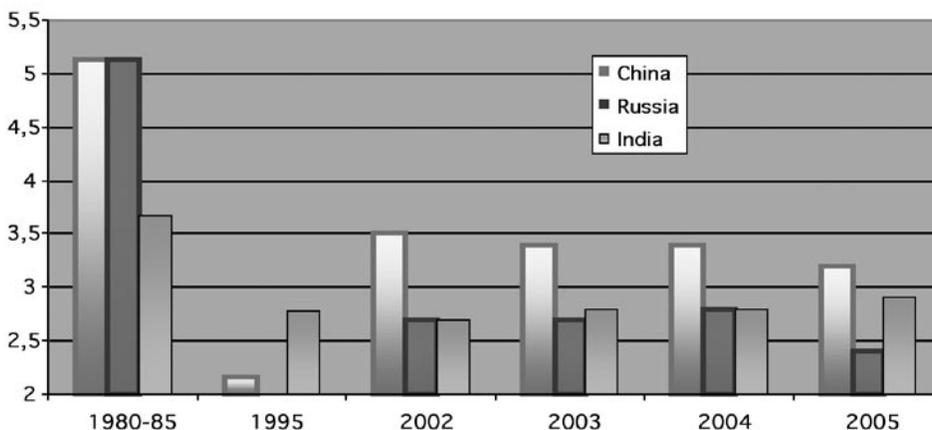
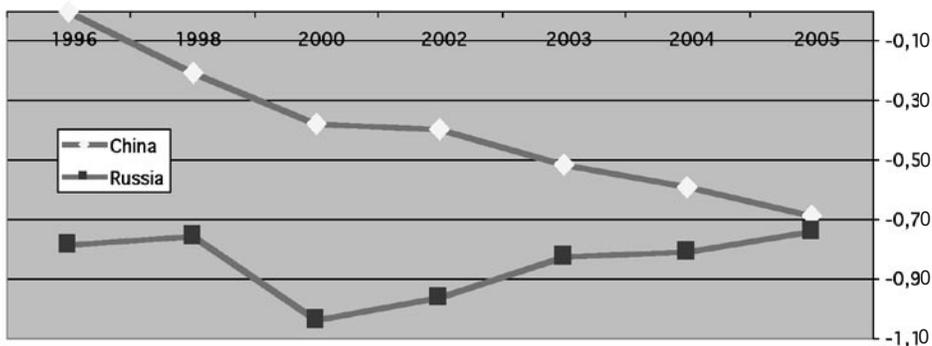
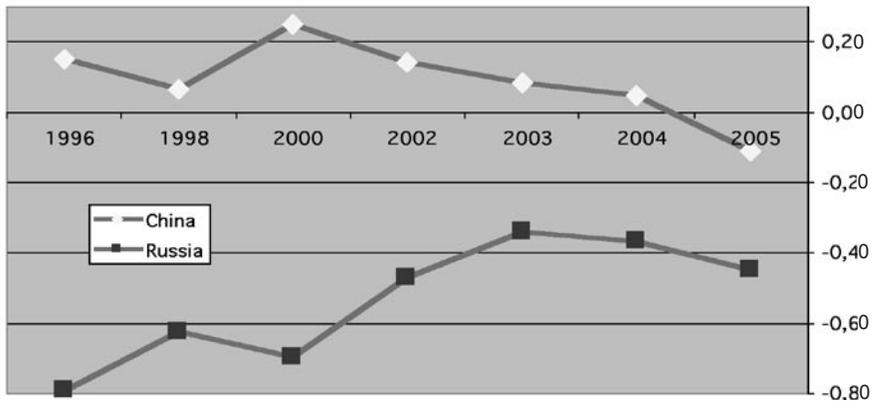


Fig. 10. World Bank control over corruption indices in Russia and China (points, ranges from -2.5 to +2.5)

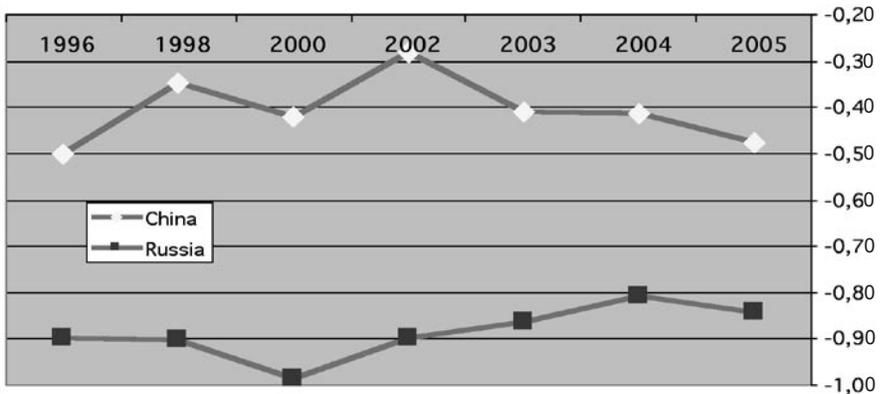


<sup>5</sup> Since the mid 1990s total government spending as a % of GDP was growing in China (from 12% in 1995 to 20% in 2005).

**Fig. 11.** World Bank government effectiveness indices in Russia and China (points, ranges from -2.5 to +2.5)



**Fig. 12.** World Bank rule of law indices in Russia and China (points, ranges from -2.5 to +2.5)



### Reasons for differing performance during transition: democratization and the quality of institutions

What lead to the institutional collapse and could it have been prevented? Using the terminology of political science, it is appropriate to distinguish between strong authoritarian regimes (China and Vietnam and to an extent – Belarus and Uzbekistan), strong democratic regimes (Central European countries) and weak democratic regimes (most FSU and Balkan states) – see **fig. 13**. The former two

are politically liberal or liberalizing, i. e. protect individual rights, including those of property and contracts, and create a framework of law and administration, while the latter regimes, though democratic, are politically not so liberal since they lack strong institutions and the ability to enforce law and order (ZAKARIA, 1997). This gives rise to the phenomenon of “illiberal democracies” – countries, where competitive elections are introduced before the rule of law is established. While European countries in the XIX century and East Asian countries recently moved from first establishing the rule of law to gradually introducing democratic elections (Hong Kong is the most obvious example of



for a larger sample of countries<sup>6</sup>. The best explanatory power, however, is exhibited by the index that is computed as the ratio of the rule of law index to the democracy index: 83% of all variations in output can be explained by only three factors – pre-transition distortions, inflation, and the rule-of-law-to-democracy index (**table 1**, equation 2). If a liberalization variable is added, it turns out to be statistically insignificant and does not improve the goodness of fit (equation 3). At the same time, the ratio of the rule of law to democracy index and the decline in government revenues are not substitutes, but rather complement each other in characterizing the process of the institutional decay. These two variables are not correlated and improve the goodness of fit, when included together in the same regression: R<sup>2</sup> increases to 91% (equation 5) – better result than in regressions with either one of these variables. The liberalization index, when added to the same equation, only deteriorates the goodness of fit, is not statistically significant, and has the “wrong” sign.

To test the robustness of the results, another year for the end of the transformational recession was chosen – 1998, so the period considered was 1989-98 (by the end of 1998 the absolute trough was reached in 24 countries out of 26 that experienced the recession). The adjusted R<sup>2</sup> is slightly lower, but the statistical significance of coefficients remains high (with the exception of the initial GDP per capita). The best equation is shown below:

$$\text{Log}(Y_{98/89}) = 5.8 - .006\text{DIST} - 0.005\text{Ycap}_{87} - 0.39\text{WAR} - 0.01\text{GOVREV}_{\text{decline}} - 0.17\text{logINFL} - .003\text{DEM} \\ (-2.48) \quad (-0.09) \quad (-3.22) \quad (-2.94) \quad (-4.60) \quad (-1.74)$$

(N= 28, Adjusted R<sup>2</sup> = 82%, T-statistics in brackets, all variables are shown in the same order as in equation 7 from **table 1**, liberalization variable is omitted).

Once again, if the liberalization variable is introduced in this equation, it turns out to be insignificant.

To summarize, Chinese style gradual deregulation of prices avoided the collapse of output in non-competitive industries, whereas gradual democratization preserved strong institutions that contributed greatly to the recent Chinese economic success.

### Medium term perspective (since 1949): Beijing consensus versus Washington consensus

The catch-up development of China since 1949 looks extremely impressive: not only the growth rates in China were higher than elsewhere after the reforms (1979-onward), but even before the reforms (1949-79), despite temporary declines during the Great Leap Forward and the Cultural Revolution, the Chinese development was quite successful. According to Maddison (2003), Chinese per capita GDP was about 70% of India's in 1950, rose to about 100% by 1958-59, fell during the Great Leap Forward, rose again to 100% of the Indian level by 1966, fell during the first years of Cultural Revolution, and rose again to 100% by 1978. By 2001 it was more than 80% higher than Indian.

<sup>6</sup> For a larger sample of countries (all developing and developed countries, not only transition economies), the result is that there is a threshold level of the rule of law index: if it is higher than a certain level, democratization affects growth positively, if lower – democratization impedes growth (POLTEROVICH; POPOV, 2006). For the regressions reported in **table 1** (to explain changes in output in 1989-96) averages of rule of law and democracy indices were used for the longer period (1989-98) to account for the fact that business agents often anticipate changes in business climate that are captured in experts' estimates only later.

**Table 1. Regression of change in GDP in 1989-96 on initial conditions, policy factors, and rule of law and democracy indices, robust estimates**  
**Dependent variable = log (1996 GDP as a % of 1989 GDP)**

For China - all indicators are for the period of 1979-86 or similar

| Equations, Number of Observations / Variables                        | 1, N=28  | 2, N=28 | 3, N=28 | 4, N=28           | 5, N=28  | 6, N=28  | 7, N=28  |
|--|----------|---------|---------|-------------------|----------|----------|----------|
| Constant   | 5.3***   | 5.4***  | 5.2***  | 5.4***            | 5.4***   | 5.5***   | 5.7***   |
| Distortions, % of GDP <sup>a</sup>                                   | -0.05**  | -0.05** | -0.03   | -0.06**           | -0.07**  | -0.07**  | -0.07**  |
| 1987 PPP GDP per capita, % of the US level                           | -0.09**  | -0.06*  | -0.07** | -0.07**           | -0.09*** | -0.08*** | -0.08*** |
| War dummy <sup>b</sup>   |          |         |         | -.19 <sup>c</sup> | -.36***  | -.37***  | -.45***  |
| Decline in government revenues as a % of GDP from 1989-91 to 1993-96 |          |         |         |                   | -.011*** | -.011*** | -.011*** |
| Liberalization index   |          |         | .05     |                   |          | -.02     | .03      |
| Log (Inflation, % a year, 1990-95, geometric average)                | -.16***  | -.20*** | -.18*** | -.17***           | -.13***  | -.13***  | -.14***  |
| Rule of law index, average for 1989-97, %                            | .008***  |         |         |                   |          |          |          |
| Democracy index, average for 1990-98, %                              | -.005*** |         |         |                   |          |          | -.003**  |
| Ratio of the rule of law to democracy index                          |          | .07***  | .07***  | .06***            | .05***   | .05***   |          |
| Adjusted R <sup>2</sup> , %  | 82       | 83      | 83      | 85                | 91       | 91       | 90       |

\*, \*\*, \*\*\* - Significant at 1, 5 and 10% level respectively.

<sup>a</sup>Cumulative measure of distortions as a % of GDP equal to the sum of defense expenditure (minus 3% regarded as the 'normal' level), deviations in industrial structure and trade openness from the 'normal' level, the share of heavily distorted trade (among the FSU republics) and lightly distorted trade (with socialist countries) taken with a 33% weight – see (POPOV, 2000) for details.

<sup>b</sup>Equals 1 for Armenia, Azerbaijan, Croatia, Georgia, Macedonia, and Tajikistan and 0 for all other countries.

<sup>c</sup>Significant at 13% level.

World Bank estimates (WDI, 2005), however, suggest that since 1960 Chinese growth rates (5-year moving averages) were always higher than Indian (**fig. 14**), that in the late 1970s, right before the reforms, Chinese per capita GDP was only half of India's, whereas today it is nearly 2 times higher (**fig. 15**). Life expectancy in China in 1950 was only 35 years, but by the end of the 1970s rose to 65

years – 13 years higher than in India (**fig. 16**); today it is 72 years – 7 years higher than in Russia and India.

Thus, by all counts Chinese development was extremely successful not only during the reform period (1979 – onwards), but also since Liberation (1949 – onwards) despite the drawbacks of the Great Leap Forward and the Cultural Revolution.

Fig. 14. GDP growth rates (5-year moving averages) in 1960-2002, %

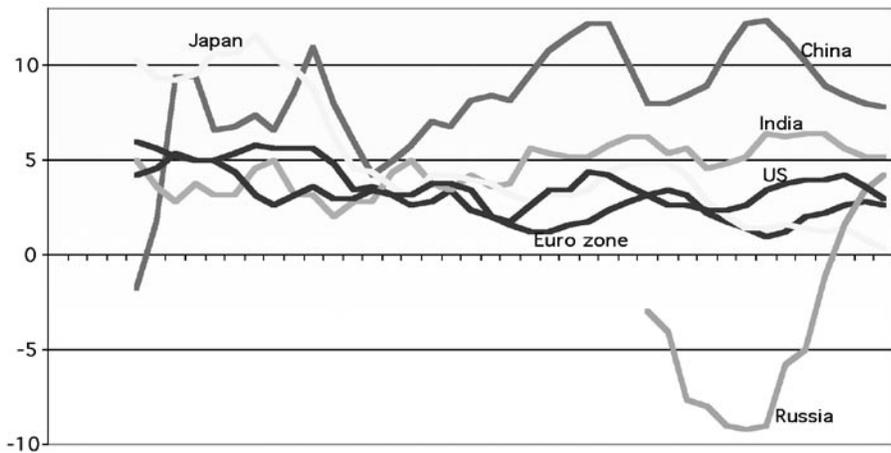


Fig. 15. PPP GDP per capita in current int'l dollars, China and India, 1975-2002 (WDI)

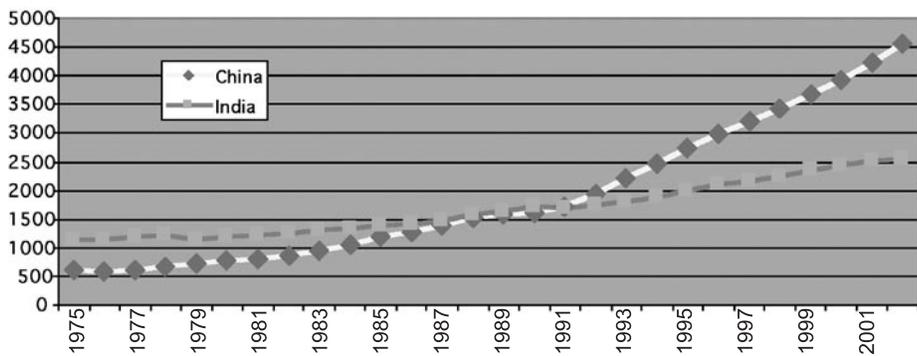
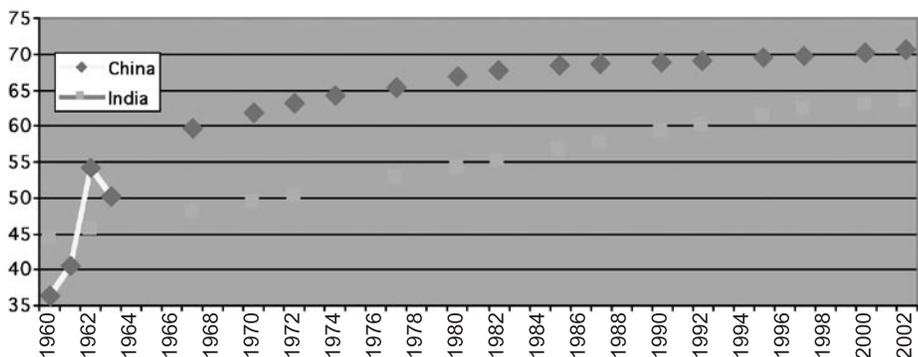


Fig. 16. Life expectancy at birth, years, China and India, 1960-2002 (WDI)



It is also important to realize that rapid catch up development of the post-reform period is due not only to and even not so much to economic liberalization and market-oriented reforms. Fast economic growth can materialize in practice only if several necessary conditions are met simultaneously. These pre-conditions for the Chinese success of the recent 30 years were created mostly in the preceding period of 1949-76. In fact, there would be no exaggeration at all to claim that without the achievements of Mao's regime the market-type reforms of 1979 and beyond would never produce the impressive results that they actually did. Rapid growth is a complicated process that requires a number of crucial inputs – infrastructure, human capital, even land

distribution in agrarian countries, strong state institutions, economic stimuli among other things. Once one of these crucial necessary ingredients is missing, the growth just does not take off. Rodrik, Hausmann, Velasco (2005)

talk about “binding constraints” that hold back economic growth. In this sense, economic liberalization in 1979 and beyond was only the last straw that broke the camel's back. The other ingredients, most important – strong institutions and human capital, had already been provided by the previous regime. Without these other ingredients liberalization alone in different periods and different countries was never successful and sometimes counterproductive, like in Sub-Saharan Africa in the 1980s and former Soviet republics in the 1990s.

Rapid growth is a complicated process that requires a number of crucial inputs

Market-type reforms in China in 1979 and beyond brought about the acceleration of economic growth because China already had an efficient government that was created by CPC after Liberation and that the country did not have in centuries<sup>7</sup> (LU, 1999). Through the party cells in every village the Communist government in Beijing was able to enforce its rules and regulations all over the country more efficiently than any emperor, not to speak of the Guomindang regime (1912-49). While in the XIX century the central government had revenues equivalent to only 3% of GDP (against 12% in Japan right after the Meiji restoration) and under Guomindang government they increased only to 5% of GDP, Mao's government left the state coffers to Deng's reform team with revenues equivalent to 20% of GDP. In the same period, during “clearly the greatest experiment in mass education in the history of the world” (UNESCO-sponsored 1984 Report) literacy rates in China increased to from 28% in 1949 to 65% by the end of the 1970s (41% in India).

The Great Leap Forward (1958-62) and the Cultural Revolution (1966-76) are said to be the major failures of Chinese development. True, output in China declined three times in the whole post Liberation period: in 1960-62 by over 30%, in 1967-68 – by 10%, and in 1976 – by 2% (WDI, 2005). The Great Leap Forward produced a famine and a reduction of the population. But if these major setbacks could have been avoided, the Chinese development in 1949-79 would look even more impressive. Most researchers would probably agree that the Great Leap Forward that inflicted the most significant damage could have been avoided in a sense that it did not follow logically

<sup>7</sup> To a lesser extent it is true about India: market-type reforms in the 1990s produced good results because they were based on previous achievements of the import substitution period (NAYYAR, 2006).

from the intrinsic features of the Chinese socialist model. There is less certainty on whether the Cultural Revolution can be excluded from the “package” of policies followed – this mass movement was very much in line with socialist developmental goals and most probably prevented the inevitable bureaucratization of the government apparatus that occurred in other Communist countries<sup>8</sup>. But the point to make here is that even without excluding these periods, the Chinese development in 1949-79 was much better than that of most countries in the world and that this development laid the foundations of the truly exceptional success of the post reform period.

It is also important to recognize, that the post 1979 reform Chinese model of economic growth is based on principles that has nothing to do with Washington or even post-Washington consensus. A responsible macroeconomic policies (no high inflation) is about the only principle of the Washington consensus that China has adhered to after 1979, whereas with respect to other fundamental principles (fast deregulation and liberalization of prices and markets, downsizing of the government, privatization, opening up of the economy) Chinese policy was not only different from, but exactly the opposite of neoliberal prescriptions. Since 1979 Chinese economic model is based on:

Gradual democratization and the preservation of the one party rule in China allowed to avoid institutional collapse, whereas in Russia institutional capacity was adversely affected by the shock-type transition to democracy (POLTEROVICH; POPOV, 2006);

Gradual market reforms – “dual track

price system” (co-existence of the market economy and centrally planned economy for over a decade), “growing out of socialism” (no privatization until 1996, but creation of the private sector from scratch), non-conventional forms of ownership and control (TVEs);

Industrial policy – strong import substitution policy in 1949-78 and strong export-oriented industrial policy afterwards with such tools as tariff protectionism (in the 1980s import tariffs were as high as up to 40% of the value of import) and export subsidies (POLTEROVICH; POPOV, 2005);

Macroeconomic policy – not only in traditional sense (fiscal and monetary policy), but also exchange rate policy: rapid accumulation of foreign exchange reserves in China (despite positive current and capital account) led to the undervaluation of yuan, whereas Russian ruble became overvalued in 1996-98 and more recently – in 2000-07. Undervaluation of the exchange rate via accumulation of reserves became in fact the major tool of export-oriented industrial policy (POLTEROVICH; POPOV, 2004).

One of the principles, namely trade openness, is probably most controversial. The advocates of liberalization would often argue that the increase in the share of exports in GDP in China from 2% in 1970 (5% in 1979) to 35% in 2005 is a proof that openness works. As usually happens, victory has many parents, whereas defeat is always an orphan. However,

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Post 1979 reform Chinese model of economic growth is based on principles that has nothing to do with Washington

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<sup>8</sup> In June 15, 1976, when Mao's illness became more severe, he called Hua Guofeng and some others in and said to them: "...I am over 80 now, and when people get old they like to think about post-mortem things ... In my whole life I accomplished two things. One is the fight against Jiang Jieshi [Chiang Kai-shek] for several decades, and kicking him out onto a few islands, also the fight an 8 year resistance war against the Japanese invasion which forced the Japanese to return to their home. There has been less disagreement on this thing... Another thing is what you all know, that is, to launch the "Cultural Revolution". Not so many people support it, and quite a number of people are against it. These two things are not finished, and the legacy will be passed onto the next generation. How to pass it on? If not peacefully, then in turbulence, and, if not managed well, there would be foul wind and a rain of blood. What are you going to do? Only heaven knows." (PEOPLE'S WEB, 2003).

as Rodriguez and Rodrik (1999) argued, there are two notions of trade openness that often get confused – the liberal trade regime (no barriers to imports and exports, convertible currency) and the share of trade in GDP – and these two do not always go together. There is plenty of evidence that a high and increasing share of trade in GDP is strongly correlated with economic growth and investment/GDP ratios (fig. 17, 18), but there is no evidence that the higher and increasing share of trade in GDP is linked to the liberal trade policies. Fast growing and more intensively trading nations are not always and were not always more open to trade (had low tariff and non-tariff barriers) than their less globalized competitors: among countries with rapid growth of export/GDP ratios there are quite a few that maintained high import duties (fig. 19).

For the XIX century, although detailed statistics does not exist, there are some powerful examples, suggesting that the growth-promoting nature of free trade is at best not obvious: China after the Opium Wars had to open its economy to international trade completely, but GDP per capita in 1949, when

the Communists took power, was at the same level as in 1850; 100 years was lost for growth despite pervasive openness (LU, 1999). On the contrary, initially the Chinese rapid growth of the share of trade in GDP (from 2% in 1970 to 25% in 1995) was taking place under an extremely protectionist trade policy – before 1979 there was a complete state monopoly on foreign trade, and in 1979-95 there was no convertibility of yuan even on current account, whereas average import duties were above 35% (RODRIK, 2006).

Recent empirical studies (RODRIGUEZ; RODRIK, 1999; O'ROERKE; WILLIAMSON, 2002; O'ROERKE; SINNOIT, 2002; see for a survey: WILLIAMSON, 2002) found that there is no conclusive evidence that free trade is always good for growth: whereas protectionist countries grew more rapidly before the WWI (fig. 20), they exhibited lower than average growth after the WWII.

Rose (2002) estimated the effect on international trade of multilateral trade agreements, such as the World Trade Organization (WTO), its predecessor the Generalized Agreement on Tariffs and Trade (GATT), and

**Fig. 17. Increase in the ratio of exports to GDP and average annual growth rates of GDP per capita in 1960-99, %**

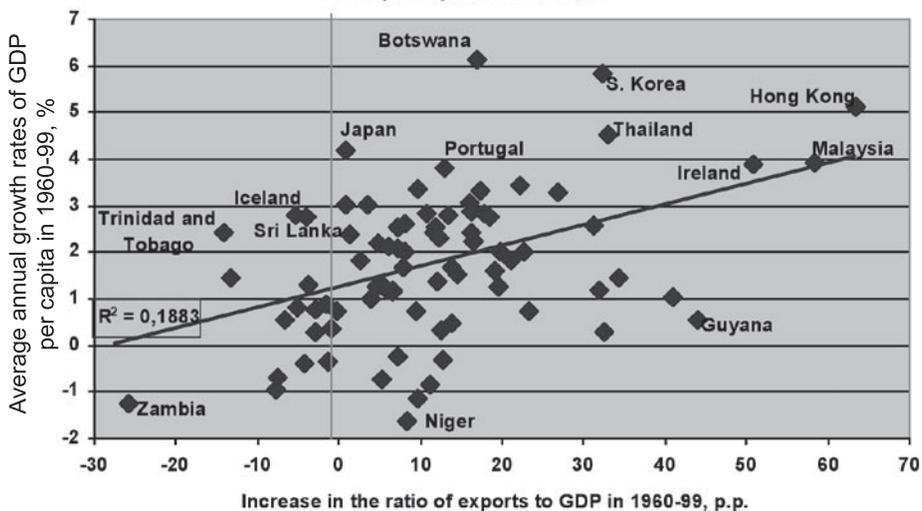


Fig. 18. Average share of exports and investment in GDP in 1960-99, %

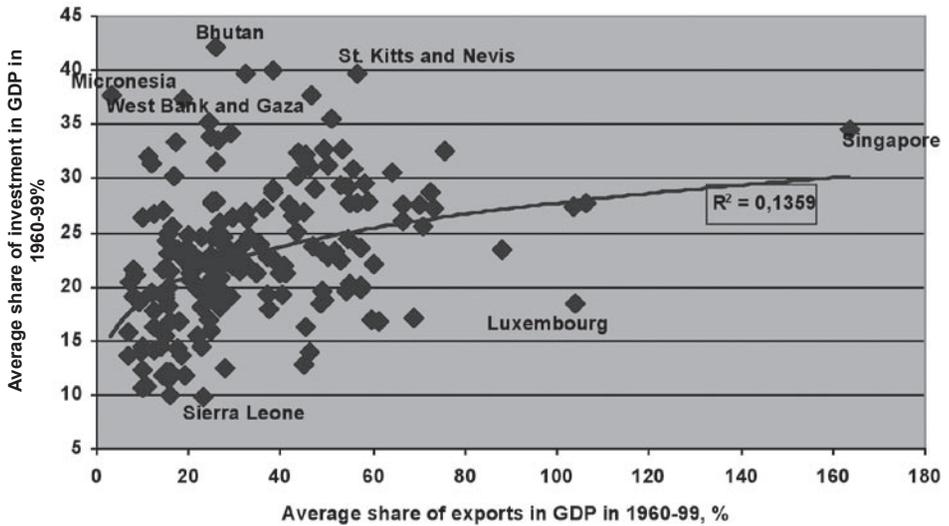
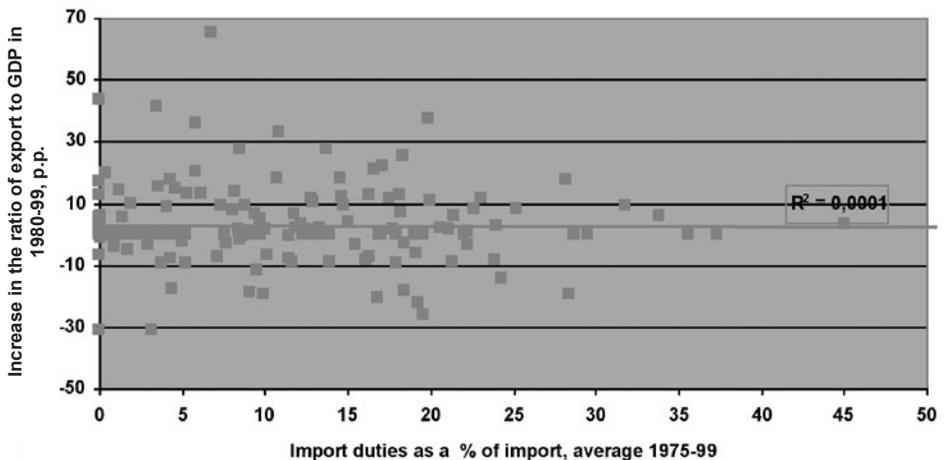


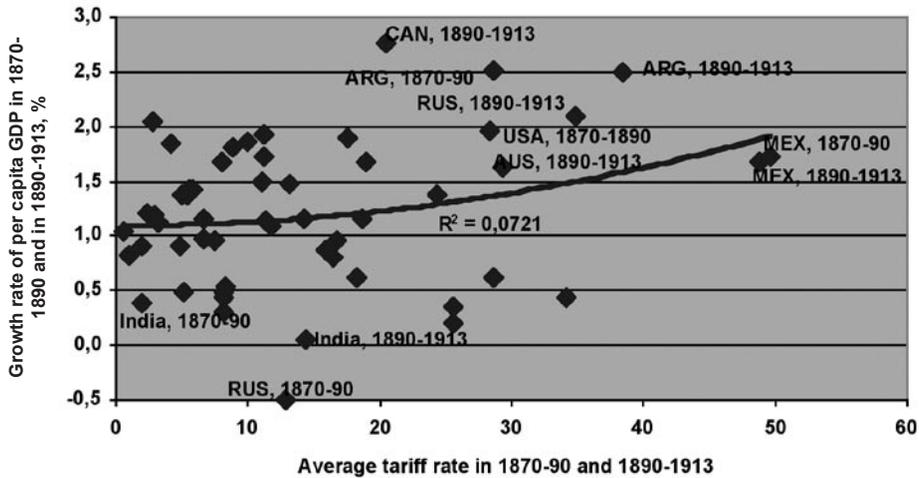
Fig. 19. Import duties as a % of import in 1975-99 and the increase in export as a % of GDP in 1980-99, p.p.



the Generalized System of Preferences (GSP) extended from rich countries to developing countries, using the standard “gravity” model of bilateral merchandise trade. He found little evidence that countries joining or belonging to the GATT/WTO have different trade patterns than outsiders, whereas the GSP giving poor

countries better access to markets in developed countries, had a very strong effect (an approximate doubling of trade). Polterovich and Popov (2005) provide evidence that in countries with low GDP per capita but relatively good institutions (low corruption), trade protectionism can stimulate growth, whereas for poor and

**Fig. 20. Average tariff rate (% of import) and growth rate of per capita GDP (%) in 1870-90 and 1890-1913**



corrupt countries the exchange rate protectionism (undervaluation of domestic currency via accumulation of foreign exchange reserves) has a similar effect<sup>9</sup>.

In short, the Chinese external trade regime in the first two decades of economic reforms was nowhere near what might have been called liberal or free trade. And Chinese export performance was so successful not despite protectionism, but due to protectionism supported with export promotion (subsidies + undervalued exchange rate). The same applies to the other features of the Chinese growth model (gradual democratization and strong institutions; no privatization; exchange rate protectionism).

## Is Chinese growth sustainable?

There is a controversy among economists whether 10% annual Chinese growth is sustainable. Parallels have been made between East Asian and Soviet growth. Krugman (1994), referring to the calculations by Young (1994), has argued that there is no puzzle to Asian growth; that it was due mostly to the accelerated accumulation of factor inputs – capital and labor, whereas TFP growth was quite weak (lower than in Western countries). The logical outcome was the prediction that East Asian growth is going to end in the same way the Soviet growth did – over-accumulation of capital

<sup>9</sup> For the 1975-99 period the impact of tariffs on growth is best described by the threshold regression:

$$\text{GROWTH} = \text{CONST} + \text{CONTR.VAR.} + T(0.005\text{IC} - 0.0016\text{Ycap75us} - 0.27)$$

(N=87, R<sup>2</sup>=42, all coefficients significant at 10% level or less, control variables are population growth rates, population density and total population), where:

GROWTH - annual average growth rate of GDP per capita in 1975-99,

T - average import tariff as a % of import in 1975-99,

Ycap75us - PPP GDP per capita in 1975 as a % of the US level,

IC - index of investment climate in 1984-90 from the ICRG (WORLD BANK) - measure of institutional capacity.

The equation implies that for a poor country (say, with the PPP GDP per capita of 20% of the US level or less) import duties stimulate growth only when investment climate is not too bad (IC > 61%) - the expression in brackets in this case becomes positive.

resources, if continued, sooner or later would undermine capital productivity. It may have happened already in Japan in the 1970s - 1990s (where growth rates declined despite the high share of investment in GDP) and may be happening in Korea, Taiwan and ASEAN countries after the currency crises of 1997. The only other alternative for high growth countries would be to reduce the rates of capital accumulation (growth of investment), which should lead to the same result – slowdown in the growth of output. Radelet and Sachs (1997), however, challenged this view, arguing that East Asian growth is likely to resume in two to three years after the 1997 currency crises.

A different approach (based on endogenous growth models and treating investment in physical and human capital as causing increases in TFP) is that in theory rapid growth can continue endlessly, if investments in physical and human capital are high. According to this approach, all cases of “high growth failures” – from the USSR to Japan - are explained by special circumstances and do not refute the theoretical possibility of maintaining high growth rates “forever”. The logical “special” explanation for the Soviet economic decline is of course the nature of the centrally planned economy itself that precluded it from using investment as efficiently as in market economies (POPOV, 2006). In a market economy that operates well below the technological frontier, the rapid catch-up development can

be virtually endless, if the right policies are pursued. Continuing for nearly three decades 10% annual growth in China with the share of investment in GDP approaching 50% so far supports this view.

True, the predictions of the coming crash of the Chinese economic model and political system are by no means in short supply. Chang (2001) predicted the collapse within 5 years back in 2001<sup>10</sup>, whereas Yang (2006) and Pei (2006) believe that without democratization Chinese economy is doomed to at least slow down, if not collapse completely<sup>11</sup>. Time, however, takes care of these predictions – they proved to be wrong so many times in the past that it is difficult to take them seriously. Besides, Japan, South Korea, Taiwan, Singapore and Hong Kong became developed countries under non-democratic regimes (other examples are Greece, Spain, and Portugal) and it is not clear, why China cannot do it in principle. Popov and Polterovich (2006) provide evidence from cross-country comparisons that if state institutional capacity is initially weak, democratization only undermines it further (vicious circle), whereas if the initial capacity is strong enough, democratization strengthens it (virtuous circle).

Huang and Khanna (2003) make a different argument: China, they say, as compared to India, lacks home grown entrepreneurs and is very dependent on FDI, it is behind India in terms of corporate governance, innovations, and access to external financing<sup>12</sup>. Gilboy

<sup>10</sup> “Peer beneath the surface, and there is a weak China, one that is in long-term decline and even on the verge of collapse. The symptoms of decay are to be seen everywhere.” Chang believed China has about five years to get its economy in order before it suffers a crippling financial collapse—a timeline he seriously doubted could be met.

<sup>11</sup> “In the absence of an alternative to the vision of liberal democracy, the authoritarian Chinese ruling elite will find it no easy task to juggle all the competing demands that come its way” (YANG, 2006, p. 164). “The lack of democratic reforms in China has led to pervasive corruption and a breakdown in political accountability. What has emerged is a decentralized predatory state in which local party bosses have effectively privatized the state’s authority. Collusive corruption is widespread and governance is deteriorating. Instead of evolving toward a full market economy, China is trapped in partial economic and political reforms (PEI, 2006, cover text).

<sup>12</sup> “In fact, you would be hard-pressed to find a single homegrown Chinese firm that operates on a global scale and markets its own products abroad” (HUANG; KHANNA, 2003). This is not factually true – Baosteel, Chery, Cosco, Haier, Konka, Lenovo (Legend), that recently purchased the PC – business of IBM, TCL are just few examples. 20 Chinese companies (all under Chinese control and nearly all state controlled) are in Fortune’s-500 list of the world largest companies in 2006 as compared to 6 Indian companies (US -170, Japan -70, Britain -38, Germany -35, Russia -5).

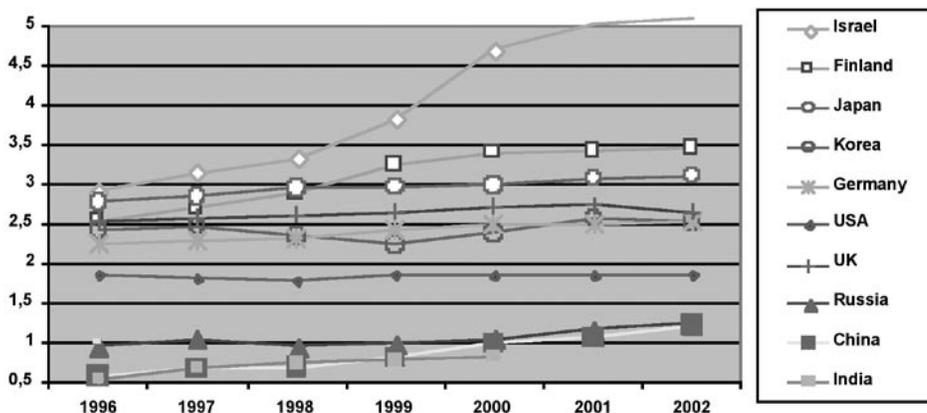
(2004) shows that China today is still behind Korea and Japan 20 and 30 years ago respectively in terms of the share of high-tech goods produced by domestic, not foreign firms in total output and export, in R&D spending as a proportion of GDP, etc. He concludes that China is experiencing growth without development and that technologically it is not able to compete with the US.

Indeed, in 2005 55% of total Chinese export and 75% of the export of computers and parts came from foreign companies operating in China. The share of R&D expenditure in Chinese GDP was only 1.3% in 2005 as compared to 2.5-3% in South Korea and Japan (fig. 21), whereas the per capita number of scientists in China is a small fraction of that in South Korea and Japan (fig. 22).

industrial structure and the structure of exports faster than Japan and Korea did in the past. The Chinese annual inflow of FDI in 2004-05 (\$50 billion) was greater than the Indian stock (\$45 billion), whereas Chinese merchandise exports in 2005 was 7 times higher than India's - \$762 and \$105 billion respectively (ACHARYA, 2007).

Nevertheless, the issue of technological dependency is real and much discussed in China. Recent studies (HAUSMANN et al.; RODRIK, 2006) suggest that what really matters for promoting growth is not the expansion of any exports, but the ability to increase exports of high tech sophisticated goods. Controlling for the GDP per capita, the index of export sophistication turns out

Fig. 21. R&D expenditure as a % of GDP



However, China seems to be more successful than Korea and Japan several decades ago in terms of exports of high tech-goods – in 1992-2002 the share of these goods in total manufacturing exports increased from 6% to 23% and today is nearly as high as in Japan (fig. 23), whereas in India it was still 5% in 2002. The share of IT technologies in GDP in 2002 in China was 5% as compared to 7% in Korea and 8% in Japan. It appears that with FDI China is able to upgrade its

to be very informative for the explanation of cross-country differences in growth rates. It is noteworthy that China had a very high difference between the hypothetical level of per capita GDP (calculated on the basis of the sophistication of the structure of exports) and the actual level. This difference for China was very high in 1992 and remained high in 2002, but it decreased markedly from its 1992 level. Other studies suggest that

Fig. 22. Number of R&amp;D personel per 100,000 of inhabitants in China, Japan, Korea

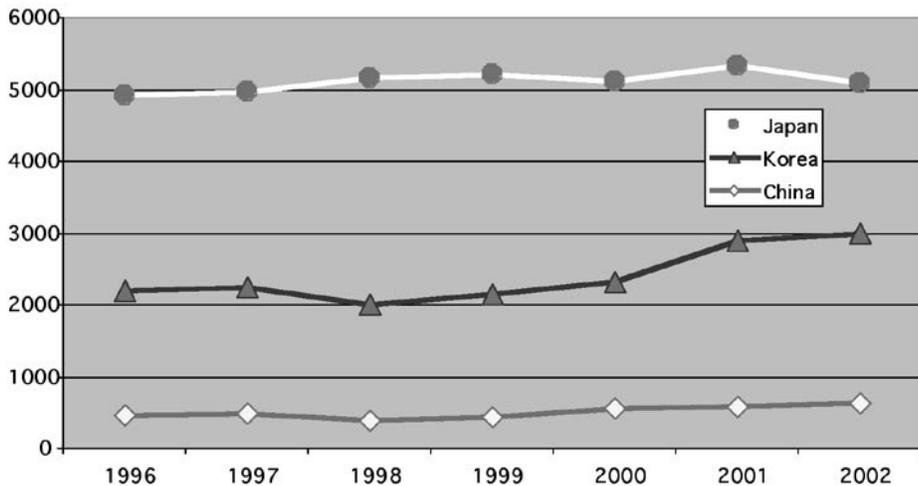
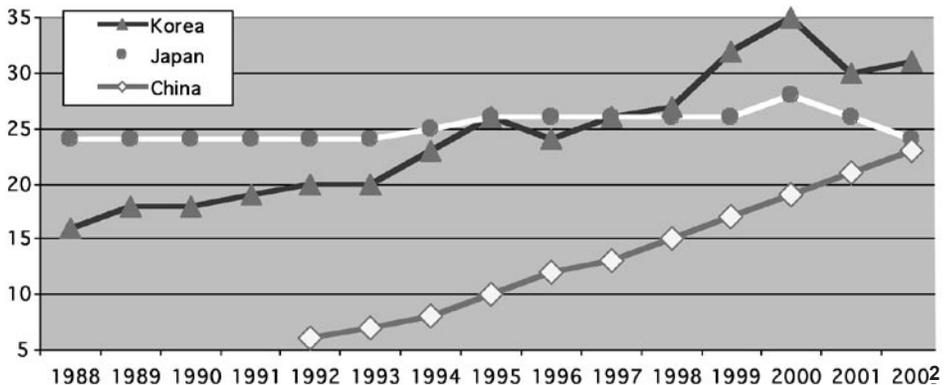


Fig. 23. Share of high tech goods in manufacturing exports in China, Japan and Korea, %



Chinese export is less skill-intensive than it should be for a country of such level of development<sup>13</sup>.

“Shichan huan jishu” – “exchange of the market share for technology” policy initiated by Deng in the early 1990s – was strongly criticized in China recently<sup>14</sup>. It is wrong though that all high tech industries in China

are dominated by foreign capital. Rodrik (2006) lists companies in the production of mobile phones, PCs, “brown” goods and “white” goods that are controlled by local Chinese companies, joint ventures and multi-nationals, in most cases the market is divided between these three types of players. Besides, it is Beijing’s stated goal to ramp up research

<sup>13</sup> Mayer and Wood (2001) found that the share of skill-intensive goods in Chinese exports in 1990 should have been 40% (assuming a relationship between the structure of exports and GDP per capita) against 33% in reality.

<sup>14</sup> Wang Xiaoling. “Rethinking of China’s FDI strategy—‘market for technology’ a total failure?” Business Watch Magazine (Shang Wu Zhou Kan), n.8, 2004.

spending to about 2.5% of GDP by 2020 from the current level of 1.3%, so the problem is at least recognized. But if something can jeopardize fast Chinese growth, it is probably the potential inability of the authorities to deal with growing technological dependency and weakness of the indigenous R&D. Other risk factors include the potential inability to arrest the increase in income inequalities and the weakening of the institutions (corruption, decline in government effectiveness), inability of the state to deliver affordable education, health care and pensions.

So far, however, despite all reservations, Chinese economic development looks extremely impressive; China is more successful in catch-up development than most developing countries; and even if fast Chinese growth stops tomorrow, we'll only have two puzzles instead of one – we'll have to explain not only why such growth was possible before, but also why it finally came to an end.

No surprise the Chinese economic model is extremely appealing in the developing world. "Beijing consensus" may not yet be a rigorous term (RAMO, 2004), but it is clear that the Chinese growth model provides the developing world with the real alternative. The attractiveness of the Chinese model of economic growth today could be compared with the popularity of the Soviet model of catch up development in the third world in the 1960s. Even though the Soviet model collapsed, the Chinese model became the logical and natural heir of the Soviet model – it is no longer a centrally planned

economy, but it is by no means a model of a liberalized market economy that is recommended by the advocates of Washington and even post-Washington consensus.

## Conclusions

Why has economic liberalization worked in China (1979- onwards), but failed in other countries (Sub-Sahara Africa, Latin America, former Soviet Union)? It is argued that there are at least two explanations. *First*, Chinese reforms were very different from the Washington consensus package (gradual rather than instant deregulation of prices, no mass privatization, strong industrial policy, undervaluation of the exchange rate via accumulation of reserves) – it is explained why these policies contributed to success. *Second*, the recent Chinese success (1979-onwards) is based on the achievements of the Mao period (1949-76) – strong state institutions, efficient government and an increased pool of human capital. Unlike in the former Soviet Union, these achievements were not squandered in China due to gradual rather than shock-therapy type democratization.

It follows that the successful catch up development of China, if it continues, would become the turning point for the world economy not only due to the size of the country, but also because for the first time in history the successful economic development on a major scale is based on an indigenous, not a Western-type economic model.

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