

Kotz, David M.

**Working Paper**

## The Role of the State in Economic Transformation: Comparing the Transition Experiences of Russia and China

Working Paper, No. 2005-04

**Provided in Cooperation with:**

Department of Economics, University of Massachusetts

*Suggested Citation:* Kotz, David M. (2005) : The Role of the State in Economic Transformation: Comparing the Transition Experiences of Russia and China, Working Paper, No. 2005-04, University of Massachusetts, Department of Economics, Amherst, MA

This Version is available at:

<https://hdl.handle.net/10419/105749>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# DEPARTMENT OF ECONOMICS

## Working Paper

**The Role of the State in Economic Transformation:  
Comparing the Transition Experiences of Russia and  
China**

by  
David M. Kotz

Working Paper 2005-04  
Revised version



**UNIVERSITY OF MASSACHUSETTS  
AMHERST**

**The Role of the State in Economic Transformation:  
Comparing the Transition Experiences of Russia and China**

**September, 2005**

by David M. Kotz

Department of Economics and  
Political Economy Research Institute  
Thompson Hall  
University of Massachusetts  
Amherst, MA 01003  
U.S.A.

Telephone 413-545-0739

Fax 413-545-2921

Email [dmkotz@econs.umass.edu](mailto:dmkotz@econs.umass.edu)

## **1. Introduction<sup>1</sup>**

Neoliberal institutions, policies, and ideas hold a dominant position in much of the world today. In its most general meaning, neoliberalism refers to the view that the state should play a very limited role in the economy. According to this view, if the state largely recedes from economic life, the result will be an optimum of efficiency, income distribution, and technological progress. The state as an economic actor is seen as inevitably a source of corruption, inefficient allocation of resources, arbitrary redistribution of wealth, and obstruction of economic progress.<sup>2</sup>

The boldest claim of neoliberalism is that it offers the best guide, and indeed the only effective guide, for undertaking a major transformation of a country's economic system. Two kinds of major economic transformation are relevant here. One is economic development, which entails the movement of a less developed country toward the world frontier with respect to living standards and technological proficiency.<sup>3</sup> The second is economic transition, which is the common term for the shift from an economic system based on central planning to one based on market forces.

The dominance of neoliberalism, which has endured for some twenty-five years, is paradoxical because its claims appear to be in sharp conflict with historical experience, particularly with regard to economic development and economic transition. First, consider economic development. Upon close examination, even the history of the main pillars of neoliberalism, the USA and the UK, fails to conform to their current-day preaching. The conventional wisdom holds that Britain achieved industrial supremacy in the 18<sup>th</sup> to early 19<sup>th</sup> centuries through Laissez Faire policies. However, Ha-Joon Chang has shown that, in the critical period when Britain overtook its continental rivals during the industrial revolution, the state actively intervened, both domestically and in trade policy, to promote Britain's economic interests (Chang, 2002, pp.19-24). In the USA in the nineteenth century, the state put up high tariff barriers and invested heavily in domestic transportation systems, which propelled the US from an agricultural country to the world's leading industrial power by the end of that century. Free trade, and neoliberalism in general, were first advocated in each case only after the country had become so dominant economically with respect to its rivals that a reduced role by all states seemed appealing as a means to enable the dominant power to lengthen its economic lead.

The experience of late industrializers is even more impressive. Japan, the Soviet Union, and South Korea all moved very rapidly from the status of less developed country to high-income industrialized country by means of a state directed development strategy that violated virtually all of the prescriptions of neoliberalism. No example exists of a major country that has made this developmental transition rapidly by relying on the neoliberal approach.

The second kind of economic transformation, that from central planning to a market economy, might seem more fertile ground for neoliberal success stories. Nevertheless, this paper will argue that, for economic transition as well as for economic development, a state directed transformation strategy is superior to the neoliberal strategy. While the shift to a market economy does entail movement away from a fully state-run economy, it does not follow that the best way to make such a transition is to rely on non-state actors to carry it out. The fact that the role of the state must change in such a transformation does make the state's role in transition complicated. Nevertheless, it will be argued here that this second transformation can be carried out effectively only with active state guidance.

An active state role in the economy does not in itself guarantee economic success, in development or in transition. The wrong active state policies can fail to achieve either goal. A state can become an institution that is parasitic on society and obstructs economic progress. However, when the state just stands aside, waiting for individual action and non-state forces B such as entrepreneurship, comparative advantage, and cross-border capital inflows B to bring development or transition, the result is bound to be failure. The extent of that failure is potentially even greater for transition than for development. For development, the failure tends to produce stagnation, with the country locked into its unfavorable position in the world economy. For transition the consequence of fully adhering to the neoliberal strategy can be rapid movement backward, with economic and social collapse in the worst case.

This paper will examine the transition experiences of Russia and China, with the aim of drawing lessons about the relative effectiveness of the neoliberal and the state directed transition strategies. Section 2 considers Russia's economic transition since 1992, which has been guided by the neoliberal strategy. Section 3 examines China's economic experience since 1978, when it began a transition based on a different approach from the neoliberal one. Section 4 considers why the neoliberal transition strategy is predominant among countries undergoing transition, despite the failure of that strategy to deliver as promised. Section 5 offers concluding comments.

## **2. Transition in Russia**

Russia became a separate state when the Soviet Union was dissolved at the end of 1991. The newly independent Russian government adopted a neoliberal transition strategy right at the start, following the recommendations of both the International Monetary Fund (IMF) and the government's own chief economic advisors (Kotz with Weir, 1997, ch. 9). The overall theme of Russia's transition strategy has been the rapid retreat of the state from regulation of economic life. The key features of this transition strategy have been the following: 1) immediate lifting of controls on domestic prices; 2) rapid privatization of enterprises; 3) rapid elimination of the remaining elements of state direction of enterprise decisions; 4) sharp cutbacks in public spending; 5) tight monetary policy; 6) rapid elimination of barriers to free cross-border movement of goods and capital. Russia moved faster than anyone had expected toward these goals. The only significant departures from the neoliberal strategy have been continuing controls on the domestic prices of oil and gas and continuing regulations affecting exports.

Advocates of adopting the neoliberal transition strategy for Russia argued that it would, after a brief period of transition costs, bring an efficient, technologically progressive, prosperous market system. Price liberalization, privatization, and elimination of remaining state guidance of enterprise actions were supposed to rapidly replace central planning by an efficient market system. Lifting price controls was expected to set loose inflationary forces, and the tight fiscal and monetary policies were intended to quickly bring inflation under control C without, it was thought, interfering with the restructuring and growth of the economy in the long-run. Free trade and investment policy would enable Russia to gain the benefits of specializing in the world market based on its comparative advantage while also bringing in foreign capital to help modernize Russian industry.

Despite the change in Presidential regime from that of Boris Yeltsin to Vladimir Putin at the end of 1999, and throughout the periods of the various prime ministers since 1992 (except for the brief period when Yevgeny Primakov served in that office in 1998-99), Russia has steadfastly pursued the neoliberal transition strategy. The results are well known. From 1991 through 1998

Russia suffered the most severe and long-lasting economic decline in peacetime of any major country in modern history. Russia's gross domestic product (GDP) fell by 46 percent while gross investment fell by 81 percent during those years. Compared to the 1990 levels, by 1998 Russia's GDP had fallen by 51 percent and gross investment by 84%, as figures 1 and 2 show [all figures are found at the end of this paper].<sup>4</sup>

Since 1999 Russia's economy has expanded each year. The shift from contraction to expansion in 1999 resulted from the effects of the devastating financial crisis of August 1998, when Russia was forced to suspend payment on its external and internal debt. The financial crisis caused a 71 percent nominal devaluation and a 65 percent real devaluation of the ruble against the dollar.<sup>5</sup> As a result, Russian industry received a large boost from domestic consumers who could no longer afford imports, while Russian exports became more competitive. This caused Russia's net exports of goods and services to jump by a remarkable 166.0 percent in 1999 compared to 1998. Consumption spending and government spending continued to decline in 1999, while gross investment rose slightly, by 3.6 per cent. It is clear from these data that the jump in net exports in 1999 accounted for the turnaround in GDP that year.<sup>6</sup>

Russia's GDP grew at an average annual rate of 6.7 percent from 1998 to 2004, reaching 72 percent of the 1990 level by the latter year. At this growth rate, it would take until 2009 to attain the 1990 level of GDP.<sup>7</sup> If the recent growth rate does continue through 2009, Russia would have spent 19 years just to climb out of the hole into which it fell by following the neoliberal transition strategy.

However, such a projection would be too optimistic. Once the stimulatory effects of the 1998 ruble devaluation passed, Russia's continued economic expansion has been driven by the world oil market. Oil prices in world markets rose sharply in 2000, and they have remained at historically high levels. As figure 3 shows, the price of Russia's crude oil exports rose from \$111 per ton in 1999 to \$180 in 2000 and ranged from \$156 to \$232 through 2004.

Various estimates have been made of the share of Russia's GDP growth that can be attributed to the favorable oil market since 1999. Russia's average annual GDP growth rate during 1999-2003 was 6.75 percent. A World Bank study estimated that oil price changes in world markets during that period account for 1.94 percentage points of annual GDP growth while other factors account for 4.80 percentage points (World Bank, 2004, p. 11). Thus, 29 percent of GDP growth came from the oil sector by that estimate. A top economist in Russia's Ministry of Industry did a broader estimate, taking account of the direct and indirect effects of oil and gas price and volume changes on GDP, finding that, of the 7.3 percent GDP growth in 2003, between 4.2 and 4.6 percentage points resulted from growth in oil and gas while 2.7 to 3.1 percentage points came from other factors.<sup>8</sup> Based on this estimate, between 58 percent and 63 percent of GDP growth that year was derived from the oil and gas sector.

Russia's exports are predominantly made up of crude oil and gas, other raw materials, and processed raw materials such as metals. Since the mid 1990s mineral products have composed between 40 and 60 percent of Russia's exports to non-CIS countries. Adding exports of metals, precious stones, and their products brings the total to between 72 and 82 percent of exports each year since 1998, as figure 4 shows. In 2003 high oil prices elevated oil and gas exports alone to 55 percent of total exports (World Bank, 2004, p. 8).

The scale of Russia's export growth relative to its GDP growth can be seen in figure 5. During 1995-97, the last three years of Russia's economic contraction, net exports of goods and services ranged from 3 to 4 percent of GDP, which is a large export surplus but a normal one for a large, raw-material-rich country. In 1998 the export surplus rose to 6.8 percent of GDP as ruble devaluation increased exports and reduced imports while the domestic economy contracted.

From 1999 through 2004 Russia's net exports have been remarkably high as a share of GDP, ranging from 10.9 percent to 20.1%, as figure 5 shows. This gives an idea of the extent to which Russia's GDP growth since 1999 has been driven by exports. Moreover, these remarkable figures show that a significant part of Russia's increase in GDP since the start of the expansion in 1999 has benefitted the rest of the world rather than Russia. Nearly one-fourth of the increase in Russia's GDP since 1998 has been in the form of net exports, going abroad rather than benefitting the domestic economy in the form of increased consumption, investment, or public services.<sup>9</sup> This is a highly undesirable outcome for a country whose economy has suffered such a large decline since 1990.

It appears that Russia's recent growth is not sustainable in the absence of continuing very high oil prices. When oil prices return to a more normal level, Russia's growth is almost certain to decline sharply, and its economy may begin to contract again. Russia has a very limited domestic market. The majority of the population has little to spend except on absolute necessities. The small class of super-rich Russians, along with the small middle class, strongly prefer imports over domestic goods.

A healthy economic expansion continues to be obstructed by the demonetization of the Russian economy that dates to 1992. The sudden lifting of nearly all price controls in January 1992 set off a runaway inflation, while tight monetary policy prevented money growth from keeping up with the requirements of the economy. As a result, in the mid 1990s elaborate barter arrangements became commonplace, along with a unique type of trade credit in the form of simply not paying suppliers or employees for long periods of time by both private and public entities. As figure 6 shows, from 1994-2001 the ratio of M2 to nominal GDP varied between 9 percent and 16 percent. By comparison, in the USA in those years that ratio was a steady 50 percent.<sup>10</sup> In 2002-04 the ratio of M2 to nominal GDP rose, reaching 22.3 percent in 2004, largely propelled by the monetary effects of Russia's huge current account surplus. However, money still remains unduly scarce in Russia.

Russia has suffered more than demonetization B it has suffered a major demodernization. From the diversified, highly industrialized economy it had in 1990, Russia has regressed to an economy that now centers around the extraction, and to some extent the initial processing, of natural materials, for export to the world market. Figure 7 shows the differential recovery of various sectors of Russian industry. By 2004 oil extraction had exceeded the 1990 level by 2 per cent while natural gas output had returned to 99 percent of its 1990 level. A partial recovery was achieved by ferrous and non-ferrous metallurgy, which had both reached 83 percent of the 1990 level. By contrast, food industry was at 69 percent, machine building 61 percent, building materials 44 percent, and light industry 14 percent of their 1990 levels.

Note that, while oil extraction had fully recovered by 2004, oil refining had reached only 72 per cent of its 1990 level by that year. The latter comparison reflects the radical shift in the use of Russia's oil resources from promoting development of the domestic economy to sale in the world market to enrich the small group that gained control of the country's oil assets.

Russia's official national income accounts show oil and gas accounting for a sizeable 8 percent of GDP. However, that figure greatly understates the true level because of the prevalence of transfer pricing schemes in that sector. That is, Russian oil and gas producers typically sell their output at well below the market price to related trading companies, either in Russia or abroad. The trading company then resells the product at the world market price. The aim of such schemes is avoiding taxes, evading mandatory hard currency return regulations, facilitating illegal capital flight, and/or permitting theft of company revenues by insiders.

A World Bank study estimated the effect of domestic transfer pricing schemes only (since they are legal and can be found in the record), finding that the actual share of GDP originating in oil and gas production rose from 8 percent to 20 percent of GDP after attributing the revenues from associated hydrocarbon trading companies back to the producing company. Thus, as figure 8 illustrates, while only about one percent of Russia's workforce is employed in the oil and gas sector, at least 20 percent of Russia's GDP originates in that sector if proper account is taken of the impact of transfer pricing.

A large part of Russia's population has been thrust backward, forced to rely on primitive methods of self-supply to survive. A survey in 1999 found that 55 percent of Russian households relied, for half or more of the food consumed, on what they could produce from their own small gardens (RFE/RL Newline, 1999, v. 3 n. 28, February 10, part I). Nothing captures the de-modernization of Russia more sadly than the large-scale theft by desperate individuals of copper electrical transmission wires, which were strung across Russia's great expanses during the Soviet-era industrialization drive. Many of the unfortunate perpetrators end up maimed or electrocuted for their efforts.

Russia's rapid privatization deserves much of the blame for its economic dead-end. With no legitimate wealthy class that could buy Russia's state enterprises, the most valuable ones were practically given away by the state to insiders or effectively seized by unscrupulous managers, often in alliance with criminal gangs.<sup>11</sup> Those who gained control were typically interested only in short-term gain, and a process of asset stripping followed. Instead of modernizing Russian industry, privatization led to its scavenging for anything that could be sold for a quick profit, as the dismal data on the collapse of gross investment cited earlier suggest. For example, according to Klebnikov (2000), the potentially profitable Avtovaz, a huge auto manufacturing company in Togliatti, was systematically plundered in the 1990s by an alliance of its own top managers and Boris Berezovsky, the famous oligarch who was close to the Yeltsin family for several years.<sup>12</sup> Those who gained control of the oil, gas, and other gems of the Soviet inheritance obtained huge fortunes overnight, much of which was sent abroad for safe-keeping.

The social impact on Russia has been as severe as the economic impact. Following the neoliberal strategy, the state withdrew from regulation of economic life. The state was crippled by the sharp cutbacks in state spending, the steep decline in real wages of state employees, and the failure to pay state employees on time. As any alert observer would have expected, criminal elements stepped into the power vacuum created by state withdrawal. In the early 1990s criminal gangs rapidly emerged and fought open wars for control of turf in Moscow and throughout Russia (Klebnikov, 2000, pp. 11-45). Many honest state enterprise directors were assassinated as would-be looters moved in to gain control.



During the course of the 1990s, organized crime passed through a wild, “competitive” phase, and then entered an “oligopoly” stage, as a small number of super-rich oligarchs emerged who had gained control of the most valuable assets, including raw material properties, manufacturing companies, and media empires. The oligarchs combined ruthlessness with an ability to cultivate ties with the top state officials who were handing out the newly privatized enterprises. Each oligarch’s empire includes a security force staffed with highly trained former elite Soviet military and intelligence personnel. Even in its “oligopoly” stage, Russia’s criminalized system has remained violent. In July, 2004, the US journalist Paul Klebnikov, the foremost Western authority on the methods Russia’s oligarchs have used to accumulate wealth, was gunned down on a Moscow street by an assassin.

Since the Russian presidency passed from Boris Yeltsin to Vladimir Putin, there has been much publicity about Putin’s crackdown on the oligarchs. However, this can be misinterpreted. When Putin took office, he held a widely publicized meeting with the top oligarchs. In the meeting he promised that he would not “redistribute property” but that he expected the assembled men to stay out of politics and not to challenge his policies. Putin has since attacked some of the oligarchs, picking those who challenged him in their media, gave money to opposition political figures, or in the case of Mikhail Khodorkovsky, talked about running for president himself. However, those oligarchs who observed Putin’s constraints have been left alone. Some forget that even Boris Yeltsin at times cracked down on oligarchs who did something to anger him.<sup>13</sup>

Strengthening the state has been a major theme of Putin’s presidency. This might suggest that the neoliberal approach has been abandoned in favor of a state directed transition strategy. However, such a conclusion is not justified by the record. It appears that the direction of the Putin regime combines increasing centralization of political power in Moscow and an increasingly repressive and undemocratic state with the maintenance of a neoliberal economic strategy. There has been no sign of a shift toward active state guidance of Russia’s economic transition.

The economic decline and social chaos of post-Soviet Russia can be traced directly to the neoliberal strategy that Russia has followed since 1992. The immediate lifting of price controls guaranteed a runaway inflation that impoverished much of the population while enfeebling the state. The chaos induced by runaway inflation and by the suddenly removal of state direction of enterprise actions, combined with the demonetization caused by tight monetary policy, removed any incentive to engage in productive investment. With consumption and investment demand falling away, the sharp cutbacks in state spending cut the third main part of aggregate demand, ensuring a deep and long-lasting depression. Immediate opening of the economy assured that imports would flood in to gather much of what domestic demand remained, while it also made it easy for the new rich to send their ill-gotten gains out of the country.<sup>14</sup> The rapid privatization of state enterprises led to the rise of a powerful and violent criminalized class that is more oriented to short-term stealing from enterprises than long-term development. Despite following the IMF’s recommended policies, Russia was not rewarded with any significant inflow of Western investment. Foreign direct investment in Russia was only 0.3 percent of GDP during 1992-95 and 0.7 percent in 1996-99 (World Bank, 2002, p. 7).

The underlying theme of the neoliberal transition strategy B that of a hands-off state role in the transition B is fundamentally flawed. The authors of this approach seemed to believe that an effective market economy would spring up automatically if the state just “got out of the way.” Instead, that approach created a chaotic situation in which only short-run gain matters. The pursuit

of profit in such circumstances leads, not to productive investment, but to a host of unproductive activities, including speculation in land and securities, skimming enterprise revenues, various forms of fraud, misappropriation of public funds, and protection rackets.

Following such a strategy in a raw material rich country such as Russia guaranteed that Russia would, following its “comparative advantage,” sink to the status of a raw material exporting country, as its industry withered while the capitalist world market gladly bought its raw materials. Such a status is not healthy for the long-run development of any country. However, it is even more devastating for country with a large, urbanized, well-educated population such as Russia, than it is for a country with a small population such as Kuwait. As Russia has been “Kuwaitized,” the small part of the population that has found a way to grab part of the income stream flowing from raw material exports has prospered, while most of the rest have no function to perform in Russia’s new economy. The decline in Russia’s population since 1991, through an increase in the death rate and decline in the birth rate, can be seen as a response to the fact that most of Russia’s population has no place in its new economy.<sup>15</sup>

### **3. Transition in China**

Starting in 1978 China began a transition to a market economy. Unlike in the case of Russia, China’s shift from central planning to a market economy was not preceded by a long period of stagnation under central planning. From 1952, the year before the first Five Year Plan began, through the year that the shift toward the market began in 1978, China’s GDP grew at an average rate of 6.1 percent per year. In the period from the start of the Cultural Revolution in 1966 through the start of the shift toward the market in 1978, China’s GDP grew at an average rate of 5.9 percent per year. In the five years preceding 1978, the average growth rate was 5.6 percent per year (National Bureau of Statistics of China, 2002). These growth rates are quite respectable, although well below what was achieved after 1978.<sup>16</sup>

As China was beginning its transition in the late 1970s, Western specialists recommended the same neoliberal policies that would later be urged on Russia and the other former Communist Party ruled states in Europe and central Asia. However, the Chinese leadership ignored the Western advice and, over a period of time, developed its own model for transition from central planning to a market economy. China’s transition strategy has included the following elements: 1) gradual lifting of price controls; 2) a long postponement of privatization of state enterprises; 3) maintenance of state direction of the decisions of large state owned enterprises for some time; 4) expansion of state spending, particularly state investment both in state enterprises and in infrastructure; 5) generally expansionary monetary policy; 6) keeping the banking system in state hands; 7) state control over cross-border trade and capital movements. Rather than expecting a market economy to develop directly from the old state owned enterprises, China encouraged the development of new non-state, market-oriented enterprises.

China’s transition strategy bears almost no resemblance to the neoliberal approach followed by Russia. In all of the key policy areas, China followed more or less the opposite of Russia’s neoliberal strategy. Rather than immediately lifting price controls, they were only gradually removed. In 1991, thirteen years after the transition had begun, more than one-fourth of retail prices were fixed or guided by the state (World Bank, 1994, pp. 2, 193). When China was preparing to join the WTO in 2001, 23 years into the transition, it had to lift price controls that still remained on 128 items (BBC News, 2001).

In Russia, privatized former state enterprises accounted for 78.5 percent of industrial output by the end of 1994, after only 3 years of transition ( *Statisticheskoe obozrenie*, 1995, p. 41). By contrast, in China large-scale privatization of state owned enterprises (SOEs) did not begin until 1996, 18 years into the transition. The privatization of large SOEs has only begun recently. The state continued to direct, and support, large state enterprises for some time, only gradually loosening its regulation as they accumulated experience operating in a market environment.

As a consequence of China's very different treatment of its state sector, as late as 1991 the share of industrial output produced by large SOEs was 40.7 percent, compared to 41.5 percent in 1978 (Naughton, 1994, p. 478). Public spending and public investment continued to grow, rather than shrinking as in the Russian case.<sup>17</sup> As figure 9 shows, in contrast to the demonetization that tight monetary policy brought to Russia, in China the ratio of M2 to GDP rose steadily after 1978, from 24 percent in 1978 to just over 100 percent in 1996 and continuing to rise thereafter. China did not privatize its banks, as Russia did, but retained a state controlled financial system. Rather than rapidly eliminating barriers to trade and capital movements, China has retained significant controls over both.

China's approach to transition has been hands-on rather than hands-off. China's constellation of policies encouraged the development of new non-state enterprises that were allowed to operate outside the central plan. This sector grew rapidly, in a symbiotic relationship with the state owned sector. Figure 10 shows the shift in shares of industrial output among state owned, collective, and private enterprises during the first twenty years of transition. The share of SOEs fell gradually in the first decade, remaining over half of industrial sector output. Then it fell more rapidly as a share of output, to just over one-fourth in 1998. The share of collective enterprises rose in the first decade, then stabilized at 34-36 percent of industrial output. Private enterprises, starting from zero, still represented less than 10 percent of industrial output ten years after the start of transition. Only in the second decade did the latter share start to rise rapidly, reaching 37.5 percent of output by 1998. While the share of SOEs in industrial output shrank during 1978-98, their level of output grew at the average rate of 6.9 percent per year during that period (National Bureau of Statistics of China, 1999, p. 37).

The results of China's state guided transition strategy are indicated by its GDP growth performance (figure 11). Unlike the pattern in every country that followed the neoliberal strategy, China did not experience an initial depression after starting transition. China's GDP did not decline in any year since 1978, with the worst GDP performance a 3.8 percent increase in 1990. Over the period 1978 to 2004, GDP grew at the average rate of 9.4 percent per year, the fastest growth rate of any large country over that period. By 2004 China's GDP had risen to more than ten times its 1978 level.

In contrast to the collapse in investment that took place in Russia, investment has grown rapidly in China since 1978. Figure 12 shows that gross investment rose, over the long run, as a share of China's rapidly rising GDP after 1978, reaching 45.0 per cent of GDP in 2004. Gross capital formation averaged a high 37.5 percent of GDP during 1978-2004.<sup>18</sup> State investment accounted for more than half of total investment although its share declined over time, from 67.0 percent during the 6<sup>th</sup> Five-year Plan (1981-85) to 52.3% during the 9<sup>th</sup> Five Year Plan (1996-2000) (National Bureau of Statistics of China, various years).

As figure 13 shows, China has attracted a very large inflow of foreign direct investment, despite its refusal to follow the IMF-favored neoliberal approach. However, this large capital inflow did not begin until the early 1990s. Direct foreign investment was below one percent of GDP until 1988, remained at about 1 percent of GDP through 1991, and then climbed rapidly to 6.4 percent of GDP in 1993. It was fifteen years of rapid growth during the first part of the transition that attracted the huge inflow of foreign direct investment. Foreign direct investment was the result of rapid growth, not its cause. Even at its high point in the mid 1990s, FDI was only 10-15 percent of total gross investment. China's high rate of investment has been primarily domestically financed.

China's growth model has its problems. One of them is an increasing reliance on exports. As figure 14 shows, this dependence is not apparent from the data on net exports of goods and services, which have been negative in some years, especially the early transition years, and positive in others (positive every year since 1994). The size of China's net export surplus in recent years has not been excessive, varying in the one per cent to five per cent range.

However, exports of goods and services have risen over time as a share of GDP, as figure 15 shows. From 1994 to 2001 exports were between 20 and 25 per cent of GDP, which is a high ratio for such a large country. Then in 2002-2004 the export ratio climbed still further, reaching an astonishing 40.2 per cent of GDP in the latter year.

China's continuing economic growth has become dependent on growing export markets for its manufactured goods, which make up most of China's exports. An economic slowdown in the major Western economies would be likely to put severe downward pressure on China's economy. The continuation of rapid economic growth for China has come to depend on very high and rising ratios of exports and investment to GDP. This reflects China's increasingly unequal distribution of income, which holds domestic consumer demand down.

China's rapid growth cannot be entirely explained by its adoption of a state directed transition strategy. Another key factor promoting rapid growth during the transition to a market economy has been the availability of large supply of labor from the countryside that is both low-wage and relatively healthy and educated. This rural labor supply could be tapped for the rapid expansion of new non-state enterprises producing for the world market.

However, it is easy to discern the links between the features of China's state-guided transition strategy and the radically different economic performance it has exhibited compared to the Russian case. Lifting price controls very gradually avoided setting off a runaway inflation along with the economic chaos that would result. For the early part of the transition, new non-state enterprises could count on purchasing inputs from state enterprises at low, stable, controlled prices.

Keeping large SOEs in state hands, and retaining state oversight over them, kept the investment rate high, unlike in the Russian case where newly privatized and deregulated enterprises virtually stopped investing. Keeping the banking system in state hands made it possible to direct credit into productive investment, rather than the almost entirely speculative investments financed by the new private banks of Russia. The large SOEs had an opportunity to gradually become accustomed to a market system as prices controls and state oversight were gradually loosened.

Expansionary fiscal and monetary policies in China promoted economic growth by stimulating demand and facilitating borrowing for productive investment. When inflation

accelerated, the state used direct interventions to bring it under control, rather than relying on the blunt instrument of persistently tight monetary policy. The state's large program of investment in transportation, power, communication, and other infrastructure underpinned the rapid growth process.

China's regulation of trade and capital flows has helped its economy to gradually move up the economic ladder over time, toward increasingly higher technology and higher quality goods. The state's control over capital flows has made it possible to attract targeted direct investments while avoiding an inflow of short-term capital, which can flow out even more quickly than it flows in B as occurred in other Asian countries in 1997 and Russia in 1998.<sup>19</sup>

The experience of Uzbekistan provides corroborating evidence that the sharply contrasting China/Russia transition experiences can be explained primarily by the opposite consequences of state directed versus neoliberal approaches. Uzbekistan is the only former Soviet republic that entirely rejected the neoliberal approach and instead has pursued a state directed transition strategy that in some respects, if not all, resembles China's transition strategy. Uzbekistan faced quite different economic, demographic, and geographic initial conditions from China's. While Uzbekistan was unable to escape a transition recession, it was mild and short. During 1991-95 its GDP fell by 18.4 percent, then it rose by 26.2 percent during 1996-2001 (figure 16). By 2001 it had become the first former Soviet republic to surpass its 1989 level of GDP. Moderately rapid growth has continued through 2004, by which year it had exceeded the 1991 level by 20.7 per cent.<sup>20</sup> This gave rise to what is called the "Uzbek growth puzzle" -- that is, how could Uzbekistan have the best growth performance of the former Soviet republics while ignoring the IMF's advice? The answer to that supposed puzzle appears to be that its decision to ignore the IMF's advice made it possible for Uzbekistan to escape the economic disaster that has invariably followed strict adherence to the neoliberal transition strategy.

#### **4. Contradictions of a State Directed Strategy**

The contrasting experience of Russia and China is not an accident. There is good reason to expect that an effective transition from a centrally planned economy to a market economy can take place only under strong state guidance. There are two fundamental reasons for this. First, private self-interested action by itself cannot transform such a pre-existing system into a well-functioning market economy. Only the state, through active policies, can create the conditions for an effective transition. Second, such a transition necessarily takes a significant period of time. During the transition from old system to new, the population must be sustained by production of goods and services. The only feasible way to do so is to maintain the old system while gradually building up the new market system alongside it.

Consider the first reason cited above. Transition requires major structural change in every aspect of the economic system. The starting point of this transformation is a particular economic structure, including a particular structure of industry, patterns of enterprise behavior and management culture, a particular kind of financial system, and other features that are appropriate to the functioning of a centrally planned economy. Starting from a centrally planned economy, some active agency must create the rather different institutions that underlie a functioning market economy. Simply dismantling central planning and privatizing its productive and financial institutions does not produce a functioning market economy. If a society whose economy was based on central planning dismantles its planning system, privatizes its enterprises, and turns loose the

profit motive, then self-interested action by individuals will not lead to any of the socially desirable outcomes that Adam Smith describes. Instead, a war will begin over who can grab whatever are the valuable economic assets of the society as they become available for private ownership. Most of the productive units in a centrally planned economy can function properly only within that system. Dismantle the system, and most of the enterprises themselves B which formerly produced goods and services that sustained the population B now are valuable primarily for what can be stripped from them and sold in the market.

The state is the only institution in society that is in a position to guide a transition from central planning to a market economy. Unlike individuals, the state can formulate the goal of transforming the economic system and then undertake the steps necessary to accomplish that transformation. To do so it must create conditions that channel the profit motive of individuals into productive ends. The appropriate state role includes, at the least, the following: 1) assuring that adequate, low-cost financing is available for market-oriented productive activity; 2) assuring growing aggregate demand; 3) investing in necessary infrastructure for the new patterns of production and trade that will develop in a market economy; 4) protecting domestic industries from superior foreign competition at least for a certain period of time. All of these roles run counter to the neoliberal strategy.

The second reason cited above is also important for understanding why the state should play an active role in transition. It takes a long period of time to create functioning market institutions. If the institutions of central planning are simply dismantled, then there remain no effective means to produce the goods and services that the population needs to survive during the transition. The only feasible way to maintain the population during the transition is to retain the old system of central planning and state enterprises for a significant period of time, until such time as market-oriented enterprises can fulfill that role. That is what happened in the Chinese case and what did not happen in the Russian case.<sup>21</sup>

If a state directed transition strategy is effective while a neoliberal one is not, why have nearly all of the transition countries followed the neoliberal approach? Neoliberal ideas have become increasingly influential even in China in recent years, and it appears that China may be turning away from its state directed strategy and toward a neoliberal strategy. It appears that, despite the contrasting effectiveness of the two approaches, there are powerful social forces that tend to promote the adoption of a neoliberal strategy. These social forces are not just the outside influence of Western neoliberal economists and the IMF. They exist within each transition country.

In post-Soviet Russia the initial adoption of the neoliberal transition strategy resulted from the acceptance by the new Russian political leadership of the almost unanimous Western recommendation that Russia should adopt the neoliberal approach. However, the adoption of this approach at the end of 1991 immediately led to economic disaster. Most of Russian industry was devastated by the new policies. Even apart from the long-run interests of the average Russian, why didn't those who got possession of the majority of Russian industry, which was harmed by the new policies, demand a change? Why, during nearly 14 years of transition, has Russia stayed with a transition strategy that has demodernized and impoverished the country?

The answer appears to be that a state directed transition strategy hinders the maximum possible self-enrichment by powerful and well-placed individuals. For example, in Russia's machine building industry the new owners soon found that, under the neoliberal strategy, they were free to

accumulate vast personal wealth by various methods of stealing from their enterprise, although the enterprise itself may have fared poorly in the conditions created by neoliberal policies. They were also free to spend what could be wrung from the enterprise in luxury consumption and send the rest abroad for safe-keeping. The new elite buys mainly imports and sends their children abroad for schooling. The collapse of the economy has little effect on them. Shifting to a state directed strategy would place restrictions on the elite's freedom to pursue maximum personal enrichment and do what they wish with their gains. Under a state directed strategy, the economic surplus would go into investment, public and private, rather than luxury consumption and capital flight.

The ordinary people of Russia would greatly benefit from a shift to a state directed transition strategy. However, ordinary people have had little influence on state policy in Russia. Policy has been decided by the new elite, whose members benefit from the current policies, even if they spell a bleak future for the nation. President Putin's declared aim of rebuilding a strong Russian state is unlikely to do anything more than bring further centralization of political power in the Kremlin. Gaining the economic benefits of a state guided strategy would require a drastic shift in Russia's economic model, which would entail acting against the short-run economic interests of Russia's new propertied class.

Neoliberal ideology claims that a Laissez Faire policy is not just good for the rich and powerful but is also best for the country's economic progress. This ideology has enormous appeal to the rich and powerful, since it justifies their freedom to further enrich themselves without hindrance. Contrary historical evidence has been a weak influence compared to the material self-interest of members of the elite.

A similar process may be occurring in China today. Neoliberal ideas have become influential in China. When China joined the WTO in 2001, China was obligated to give up some elements of its state directed transition strategy. In recent years there has been serious consideration of privatizing all large SOEs, and many state enterprise employees have been laid off.<sup>22</sup> It may be that influential individuals in China see opportunities for enrichment that would become available under a neoliberal strategy but which are blocked under the current strategy. Even heads of state enterprises that would appear to be harmed by a shift to the neoliberal strategy may see potential advantages for themselves in such a shift. This may be a factor pushing China toward adopting a neoliberal strategy.

The self-interest of powerful economic actors in the system may explain why state directed transition strategies, despite their effectiveness, are infrequent, and even when pursued effectively for a period of time, tend to produce political pressure to abandon the strategy. This principle may also operate with state directed development strategies, such as that pursued with great success by South Korea after World War II. Since 1990 South Korea has shifted, in stages, toward a neoliberal strategy, under prodding from top business leaders as well as Western pressure. China's state directed strategy has been aimed at development as well as transition.

If China abandons its former strategy and adopts a neoliberal approach, the result is likely to be harmful for China's economic development. It can be said that China has now, after 25 years, more or less completed the transition to a market economy. Only about one-fourth of industrial output now is derived from SOEs. However, China is still a developing country. If the key elements of its state directed strategy are abandoned, then China is likely to become locked into its present position in the world division of labor, which is primarily as a producer of low-wage and low to

medium technology products. The ratio of investment to GDP would drop significantly, and economic growth is likely to slow down or halt entirely.

Adopting a neoliberal strategy in China would also threaten social stability. The shift to a market economy, while bringing rapid economic growth, has also produced serious problems. These include sharply rising inequality, a rapidly growing floating population that cannot find regular employment in the major cities, unsafe and unhealthy working conditions in some enterprises, and serious environmental degradation. It is difficult to see how such problems can be solved if China shifts to a neoliberal approach. Such a shift would be likely to only intensify the above negative trends.

## **5. Concluding Comments**

Despite the widespread influence of neoliberal ideas and policies in recent times, both historical experience and rational argument suggest that the neoliberal strategy of economic transformation is ineffective and cannot achieve its avowed aims. A state directed strategy is the only effective way to undertake economic transition or economic development. Yet it appears that the latter type of strategy, despite its effectiveness when it is carried out, tends to be self-undermining. Wealthy and powerful social actors will eventually push for a shift to a neoliberal strategy. They are aided in this objective by the influence of neoliberal ideology.

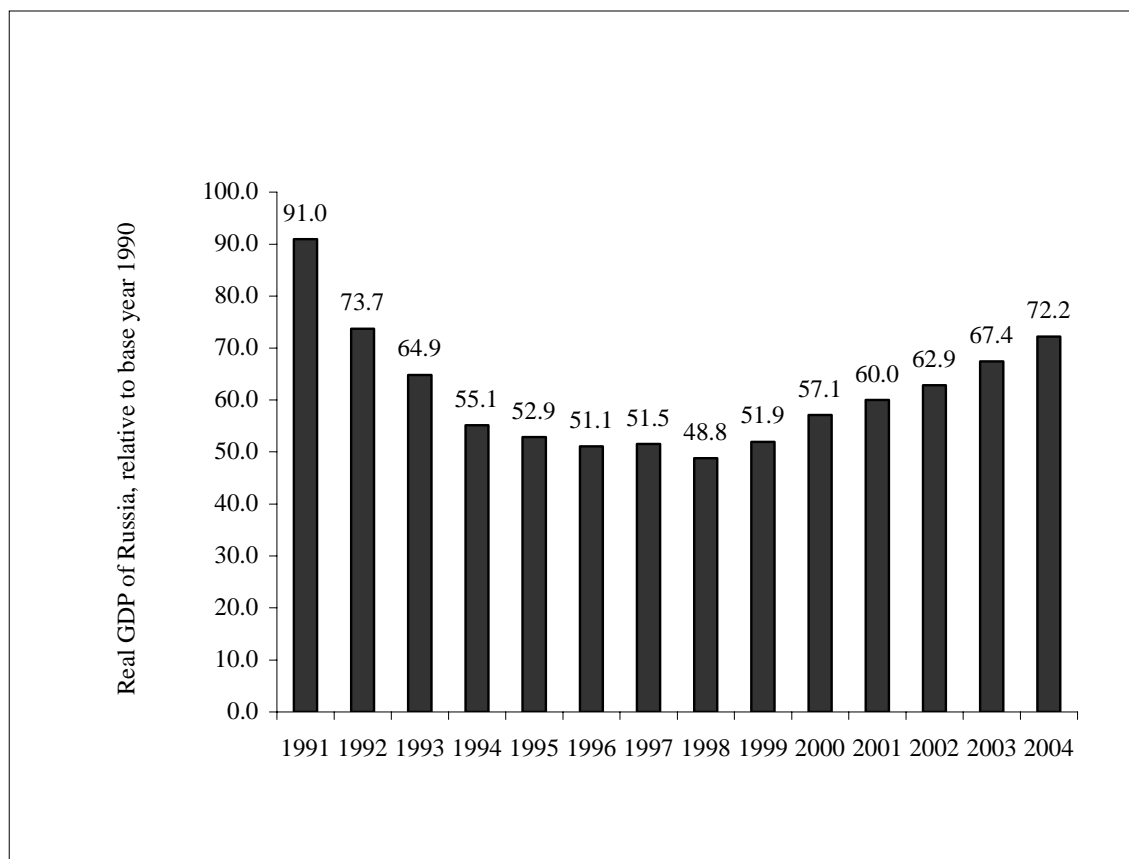
Is there any way that a state directed strategy can be sustainable over the long run? It would appear that a sustainable state directed strategy would be possible only in a social system in which there is no rich and powerful elite and in which ordinary people hold both political and economic power. That is, only within the framework of a democratic socialist system, which relies on public ownership and economic planning, could a state directed strategy be sustained over the long run. In such a system, there is no rich elite which can push policies away from those that would benefit the majority.

Over time the Soviet version of socialism came to be ruled by a privileged elite. When the Soviet elite realized, at the end of the 1980s, that the Soviet Union's socialist system stood in the way of its own greater wealth and power, it dismantled the Soviet system in order to build a capitalist system in its place (Kotz with Weir, 1997, ch. 7-8). Post-Soviet Russia's adoption of a neoliberal transition strategy followed.

In 1978 China's leadership set out to use market forces to more rapidly develop China's socialist economy. Rapid economic development did follow. However, as a market economy has developed, a new rich elite has developed along with it. This new elite has an interest in abandoning the state directed strategy. This may be an inevitable result of successful transition to a market economy, since a market economy distributes rewards very unevenly. Those who succeed in a market economy become rich, and the rich become powerful. If China is to avoid a neoliberal future, which would block the continuing development of its economy, these lessons may have to be taken into account in deciding the future evolution of China's economic system.

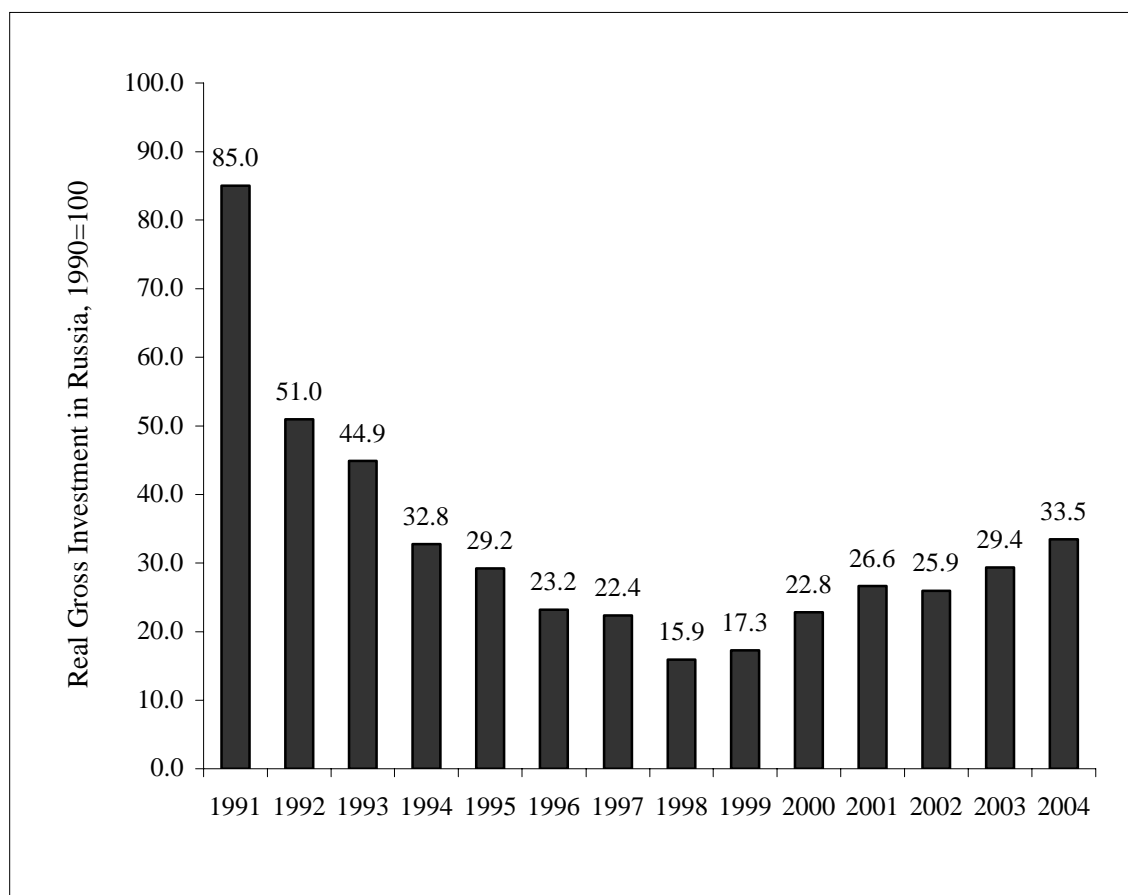
Thus, it may be that resuming economic and social progress in Russia requires a turn toward a socialist system. In China, sustaining economic progress, as well as resolving the current negative trends in China's economic development, may also require a turn toward a socialist system.





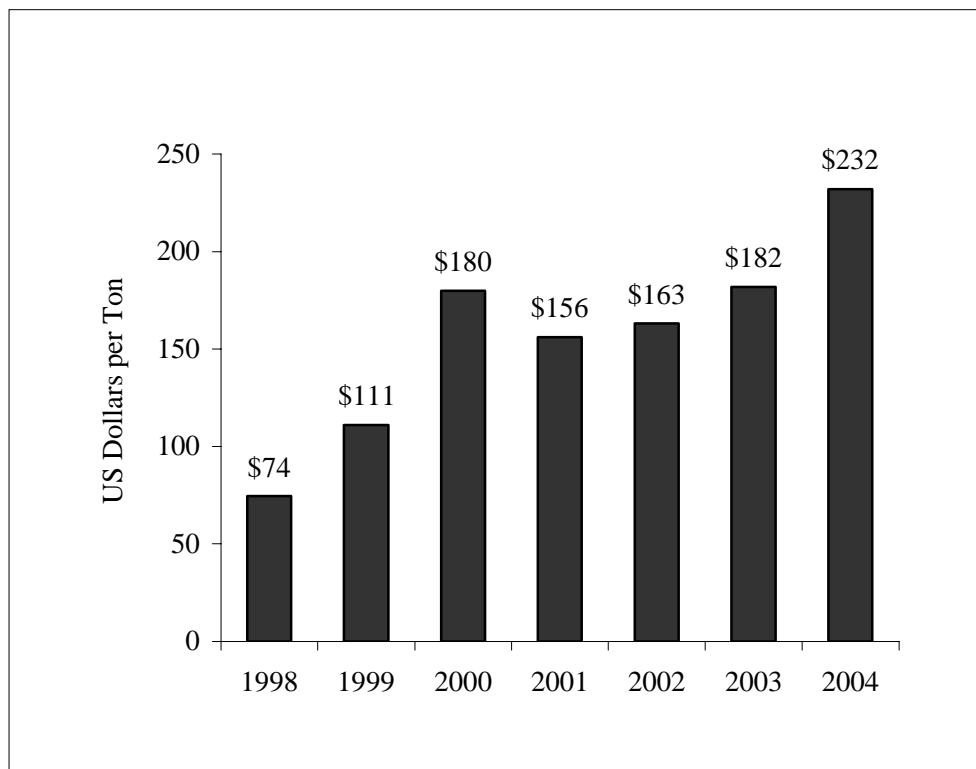
*Figure 1:* Real Gross Domestic Product of Russia, 1991-2004 (base year 1990=100)

*Source:* International Monetary Fund 1993, p.86; 1995, p.1; Goskomstat 2002, p. 32; 2004, p. 32; 2005, p. 38.



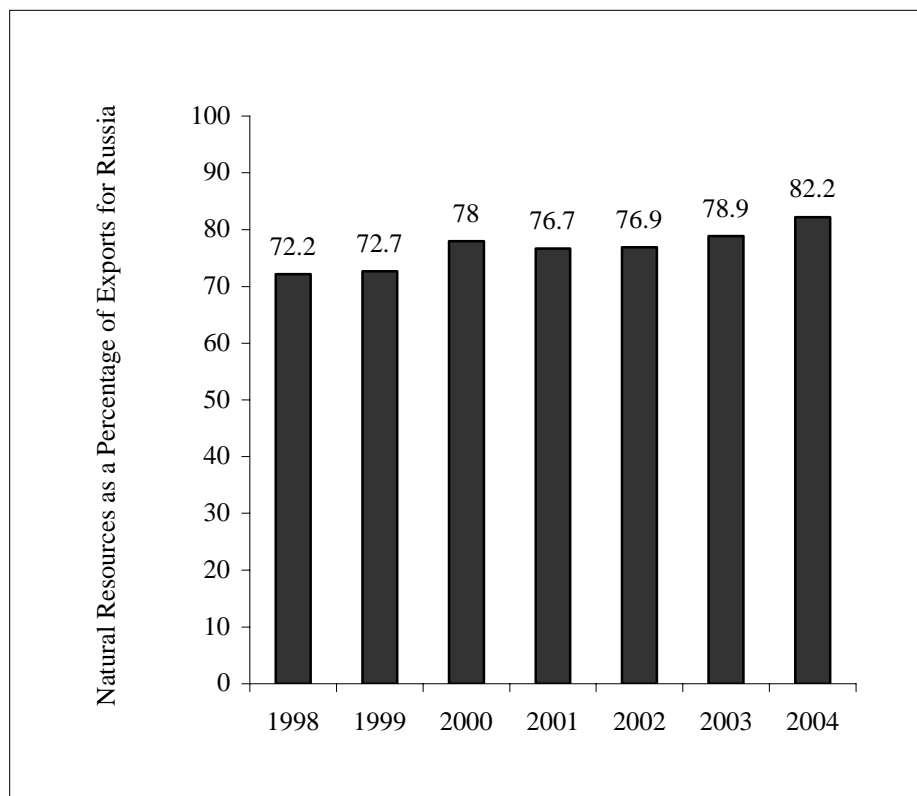
*Figure 2: Real Gross Investment in Russia, 1991-2004 (1990=100)*

*Source: OECD 95:1, p.94; OECD 96:2, p.192; Goskomstat 2002, p. 32; 2004, p. 32; 2005, p. 38*



*Figure 3: Average Export Price of Russia's Crude Oil, 1998-2004*

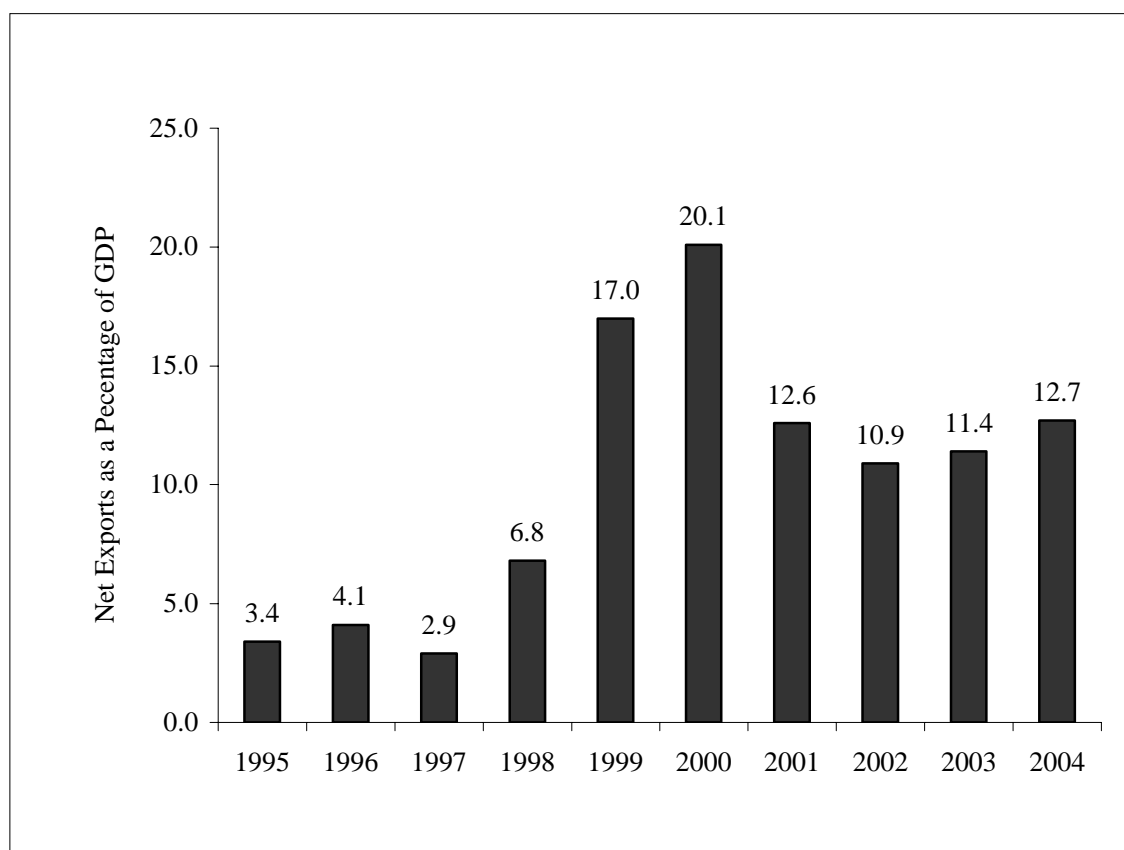
Source: Goskomstat 2004, p.414; 2005, p. 412.



*Figure 4: Natural Resources\* as a Share of Exports for Russia, 1998-2004*

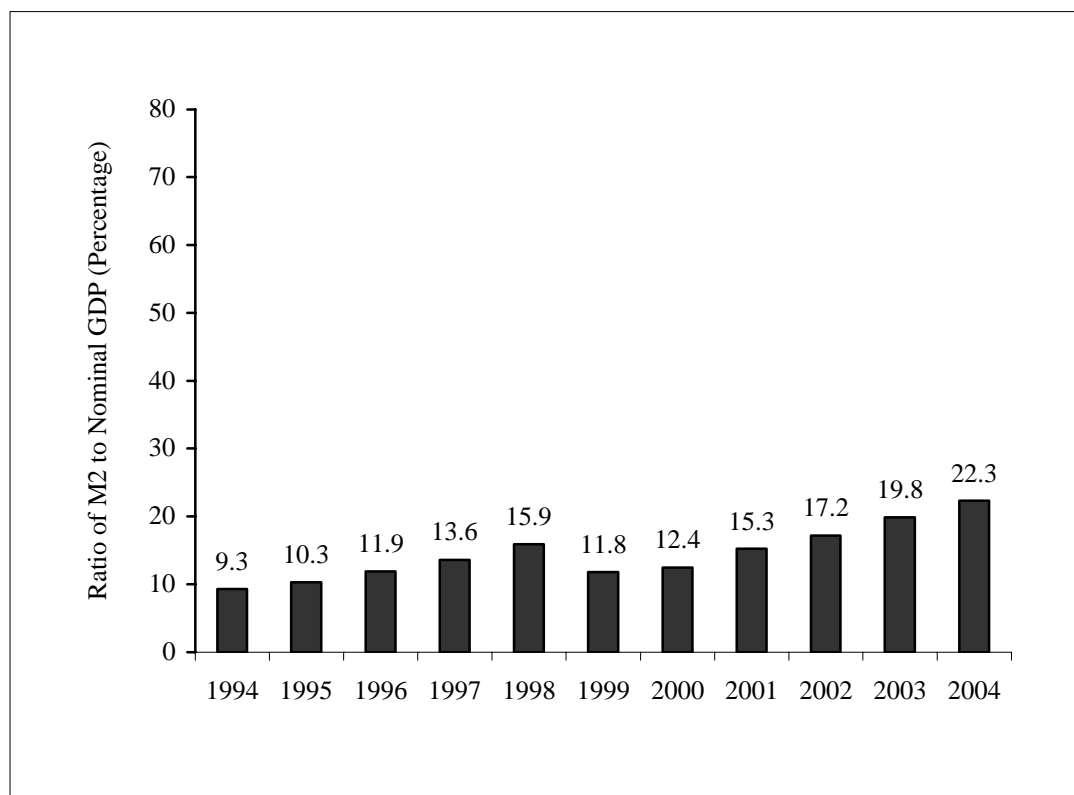
Source: Goskomstat 2004, p. 408; 2005, p. 404

\* Natural resources include mineral products, metals, precious stones, and their products.



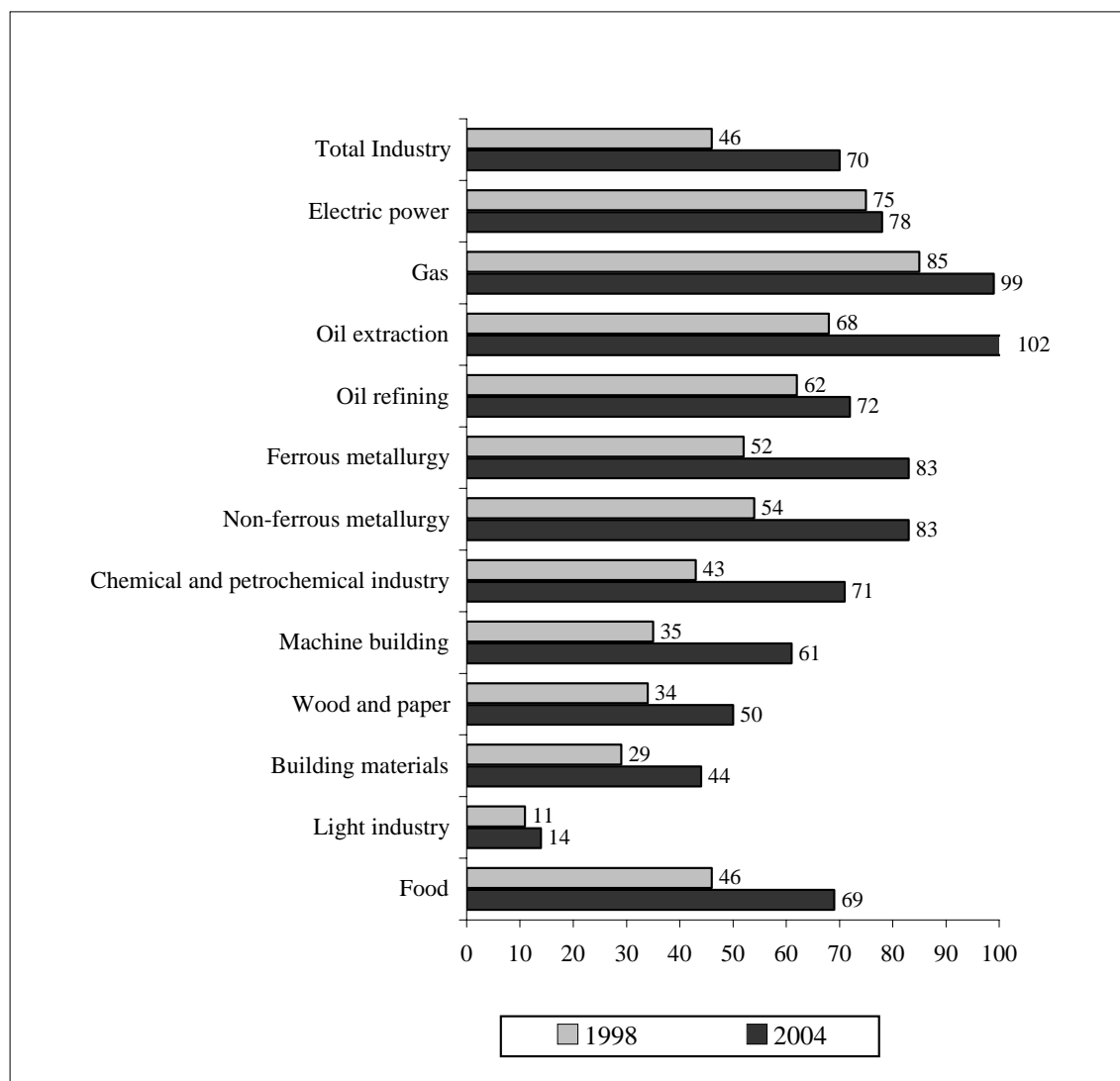
*Figure 5: Net Exports as a Percentage of GDP for Russia, 1995 - 2004*

*Source: Goskomstat 2002, p. 154; 2004, p.158; 2005, p. 158*



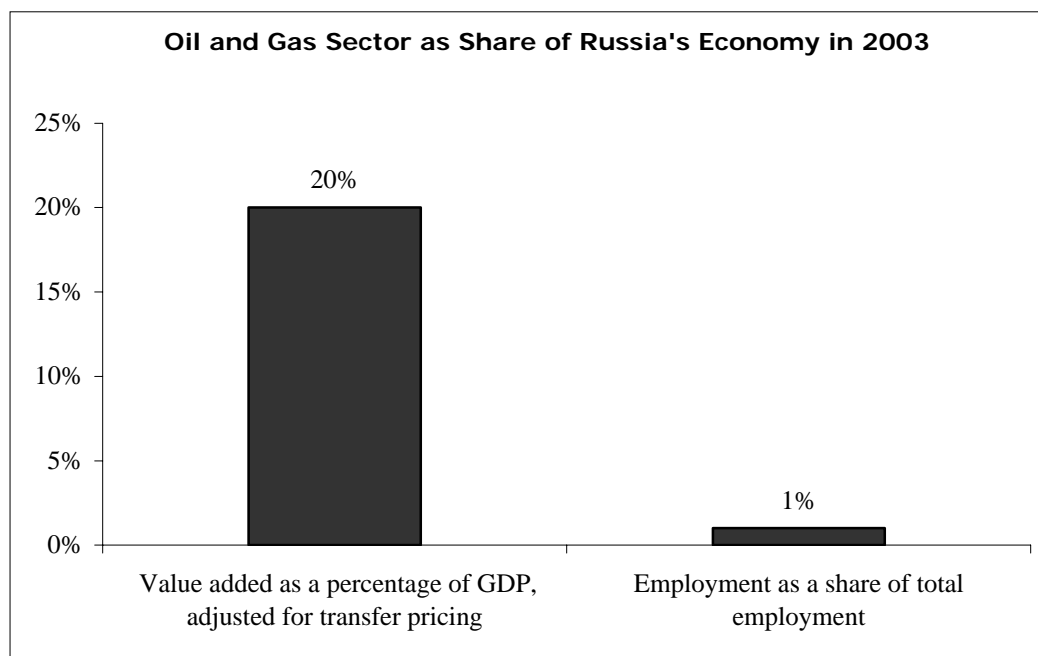
*Figure 6: Ratio of M2 to Nominal GDP for Russia, 1995-2004 (Percentage)*

*Source: Goskomstat 2002, p. 27, 295; 2004, p. 27, 325; 2005, p. 30, 321*



*Figure 7: Output of Selected Branches of Russian Industry, 1998 and 2004 (base year 1990=100)*

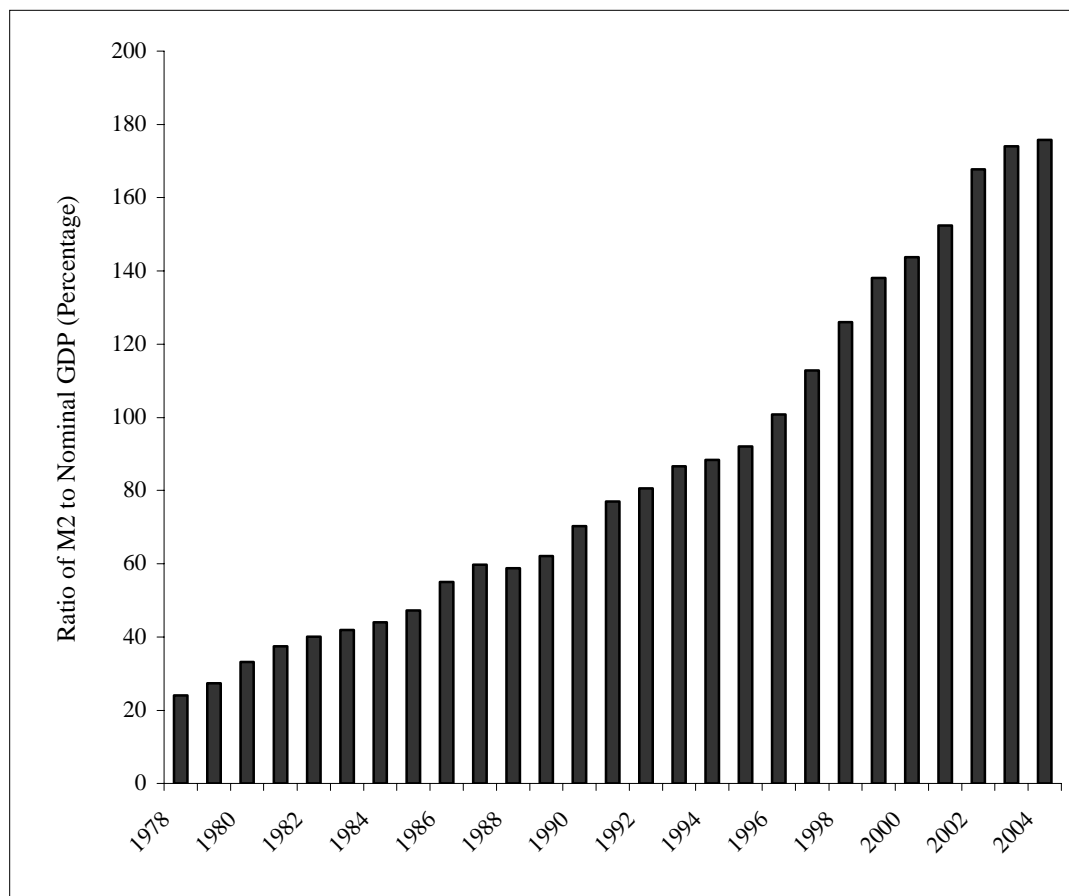
*Source: Goskomstat 2004, p. 185; 2005, p. 188*



*Figure 8: Oil and Gas Sector as Share of Russia's Economy, 2003*

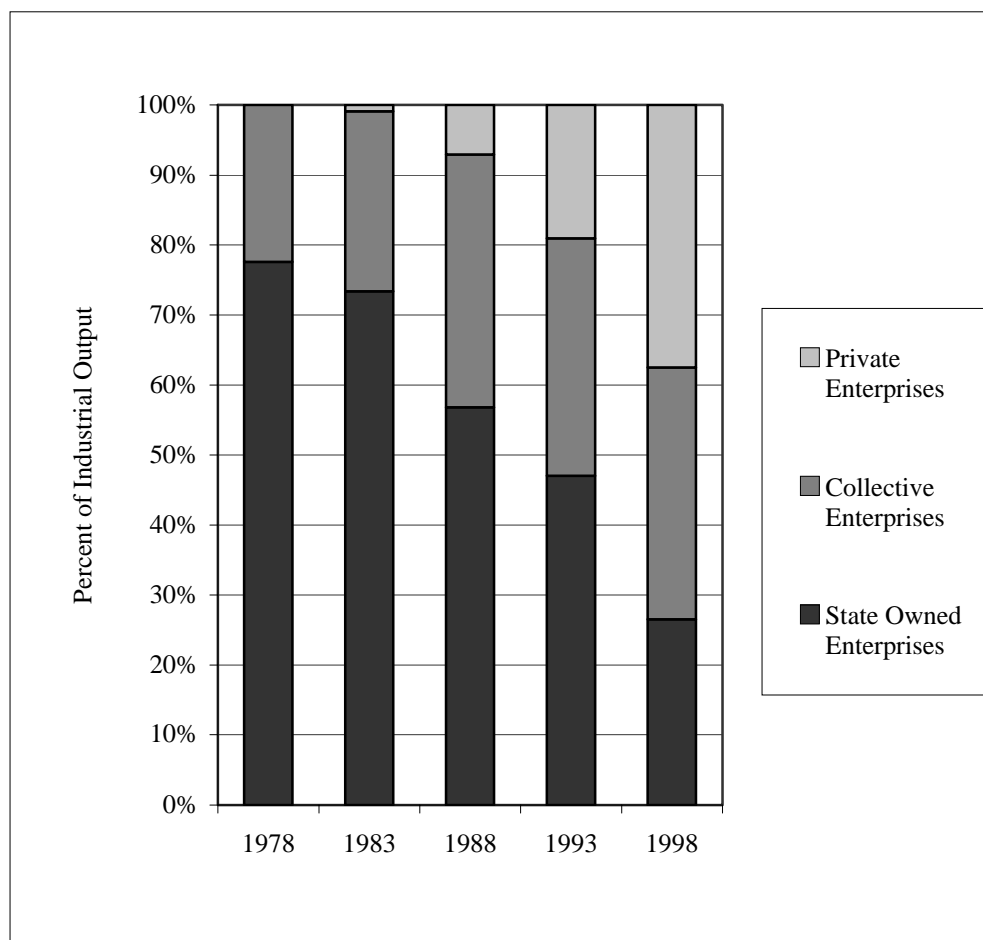
*Source: World Bank, 2004, p.8-9.*





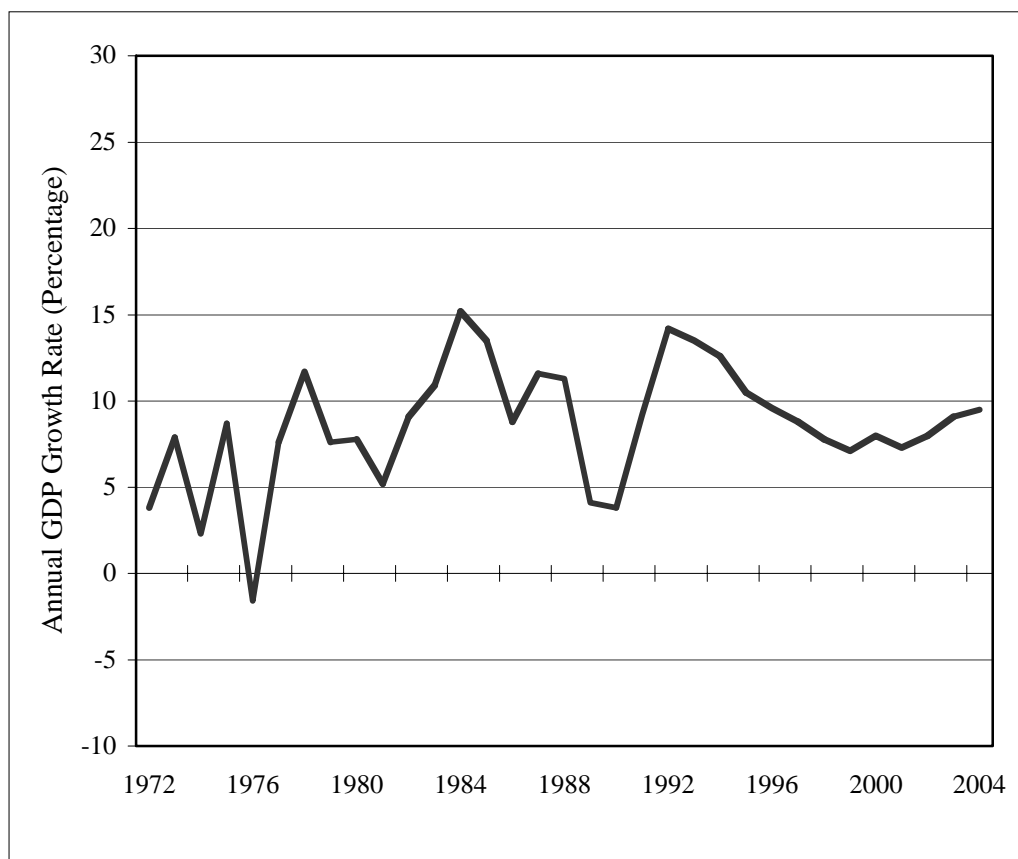
*Figure 9: Ratio of M2 to Nominal GDP for China (Percentage), 1978-2004*

*Source: World Bank, World Development Indicators, various years.*



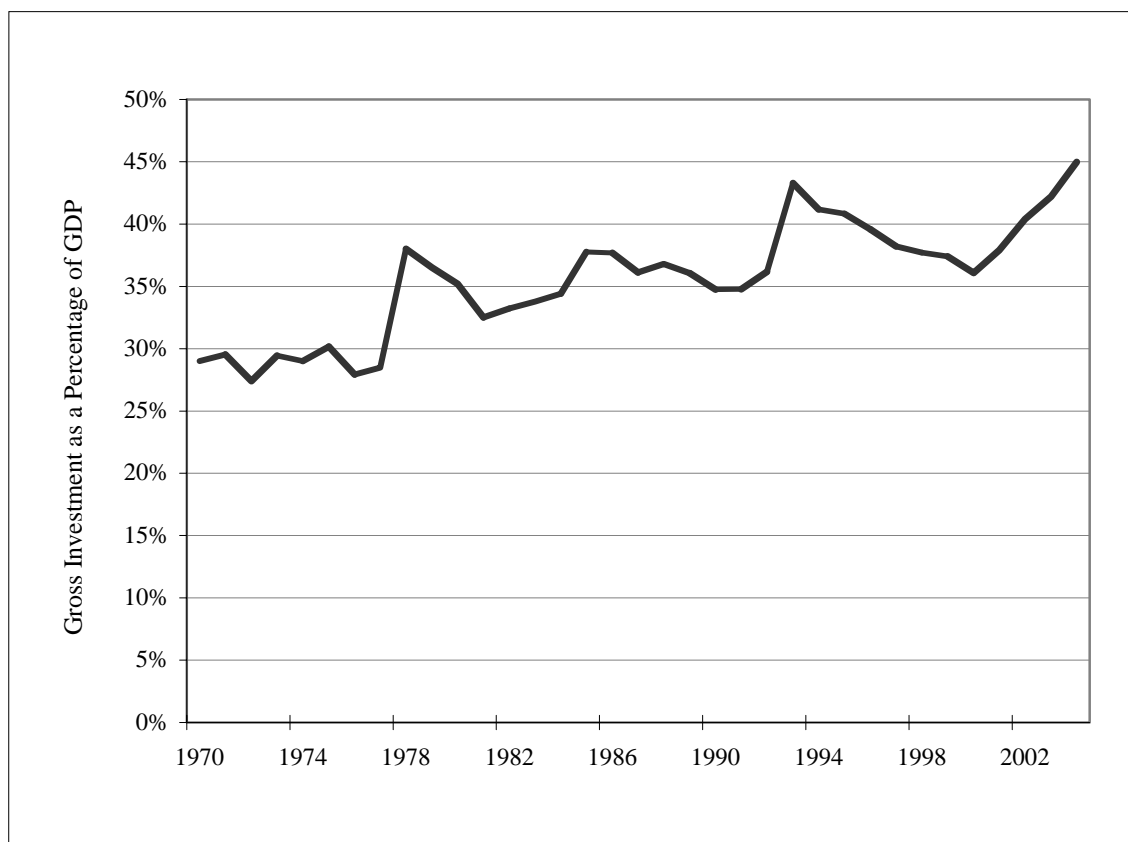
*Figure 10: Percentage of Industrial Output Derived from State, Collective, and Privately Owned Enterprises in China*

*Source: National Bureau of Statistics of China, various years.*



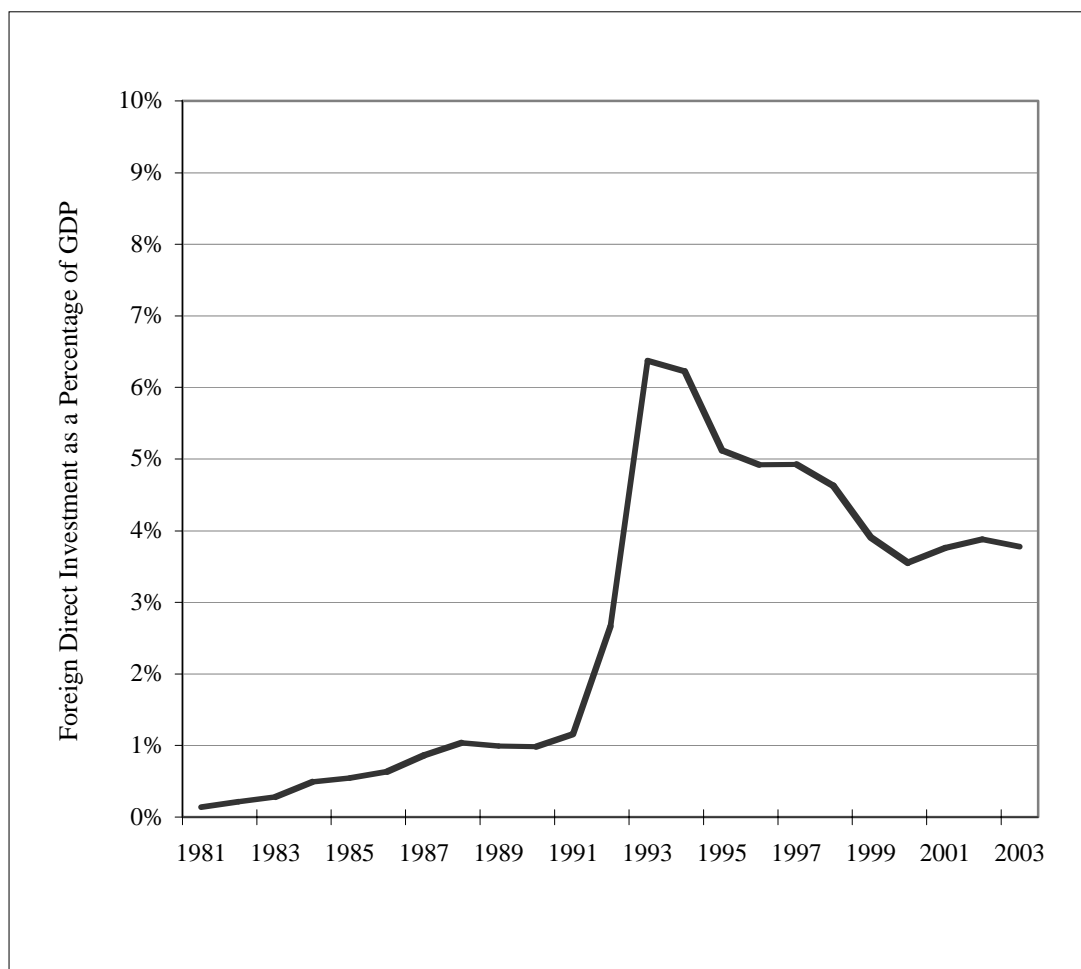
*Figure 11: Annual GDP Growth Rate for China, 1972-2004*

*Source: National Bureau of Statistics of China, various years.*

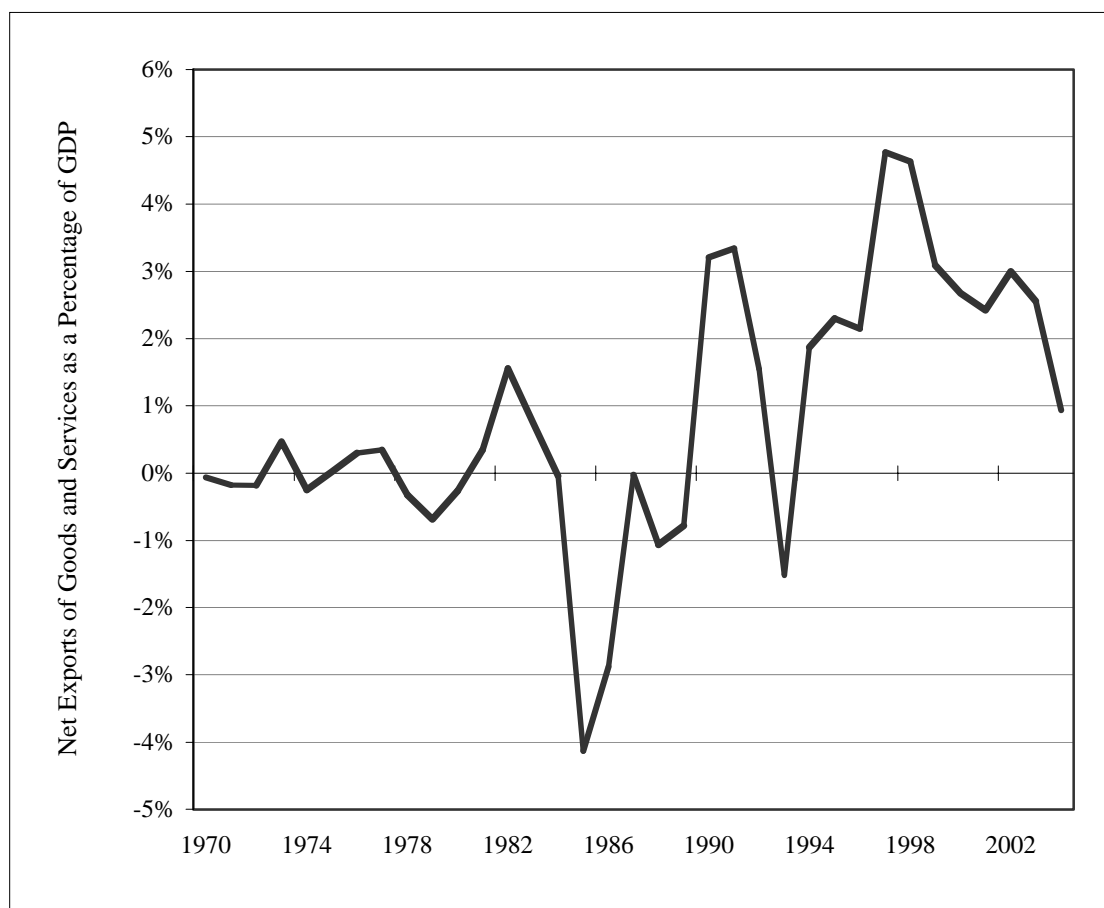


*Figure 12: Gross Investment as a Percentage of GDP in China, 1970-2004*

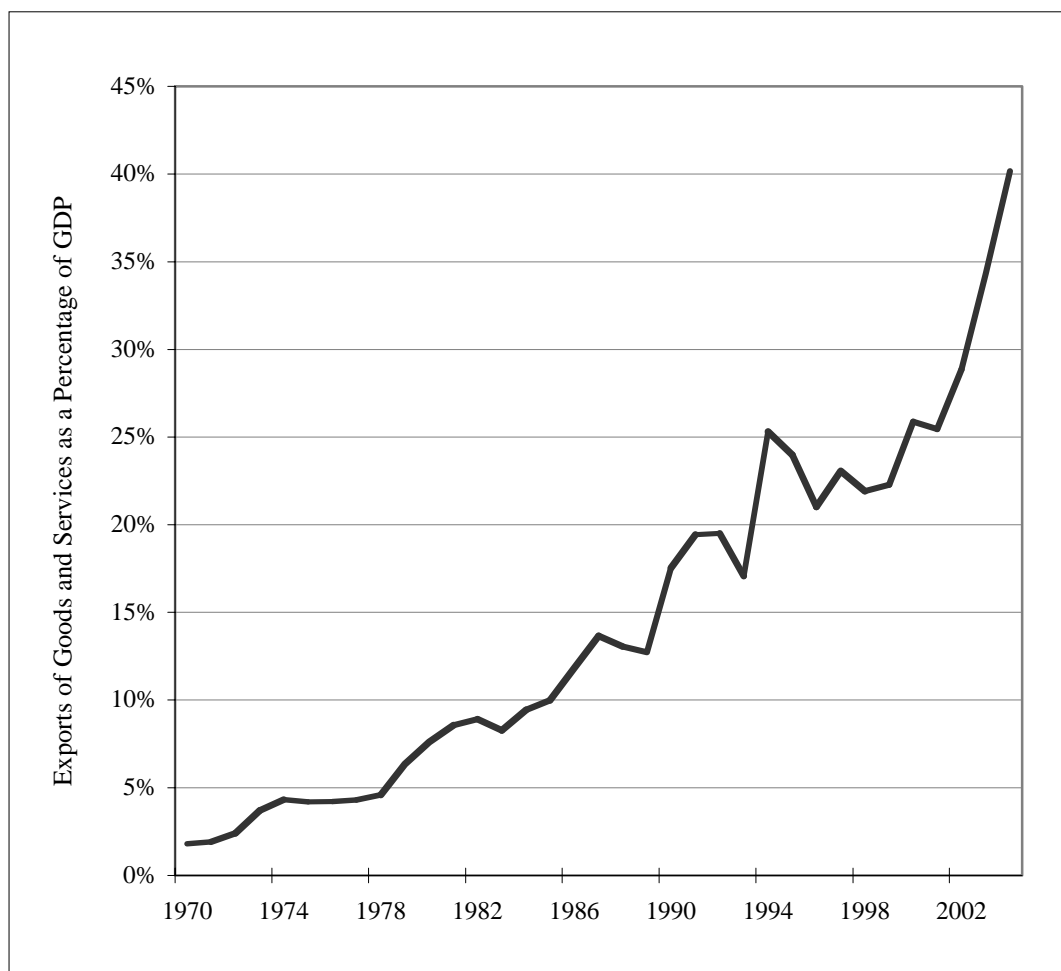
*Source: World Bank, World Development Indicators, various years.*



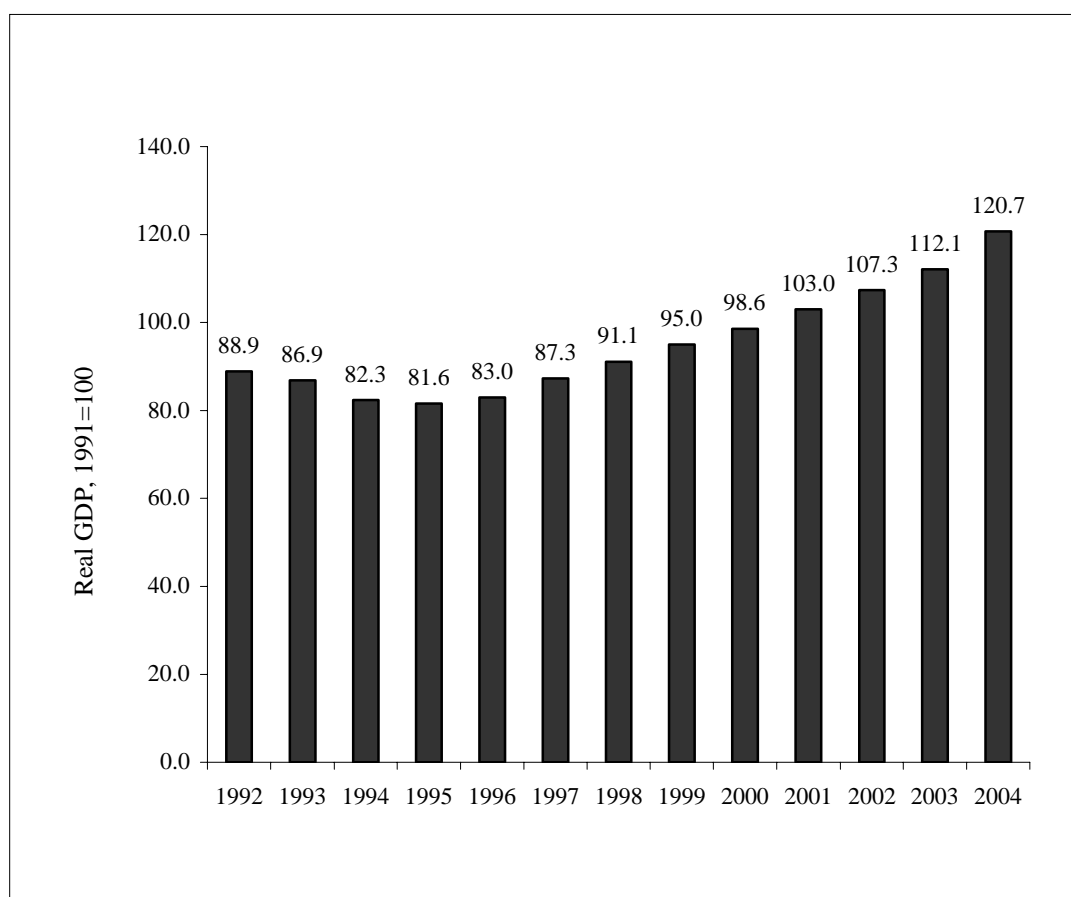
*Figure 13: Foreign Direct Investment as a Percentage of GDP in China, 1981-2003*  
*Source: World Bank, World Development Indicators, various years.*



*Figure 14: Net Exports of Goods and Services as a Percentage of GDP in China, 1970-2004*  
*Source: World Bank, World Development Indicators, various years.*



*Figure 15: Exports of Goods and Services as a Percentage of GDP in China, 1970-2004*  
*Source: World Bank, World Development Indicators, various years.*



*Figure 16: Real GDP of Uzbekistan, 1992 - 2004 (1991=100)*

*Source:* Ministry of Macroeconomics and Statistics of Uzbekistan, 2002; Asian Development Bank, 2005a, p.1; Asian Development Bank, 2005b, p. 50



### References

- Asian Development Bank. 2005a. *Country Strategy and Program Update 2005-06: Uzbekistan*.  
\_\_\_\_\_. 2005b. *Asian Development Bank Outlook 2005*.
- BBC News. 2001. China Lifts Price Controls, July 31.
- Chang, Ha-Joon. 2002. *Kicking Away the Ladder: Development Strategy in Historical Perspective*. London: Anthem Press.
- Economic Report of the President*. Various years. Washington, D.C.: U.S. Government Printing Office.
- Freeland, Chrystia. 2000. *Sale of the Century: Russia's Wild Ride from Communism to Capitalism*. New York: Crown Business.
- Goskomstat. Various Years. *Russia in Figures: Concise Statistical Handbook*. Moscow: State Committee of the Russian Federation on Statistics (Goskomstat).
- Institute of International Finance. 1999. *Capital Flows to Emerging Market Economies*. September 25.
- International Monetary Fund. 1995. *Russian Federation B Statistical Appendix*, IMF Staff Country Report 95/107. Washington, D.C.: International Monetary Fund.  
\_\_\_\_\_. 1993. *Economic Review 1993: Russian Federation*. Washington, D.C.: International Monetary Fund.
- Klebnikov, Paul. 2000. *Godfather of the Kremlin: The Decline of Russia in the Age of Gangster Capitalism*. New York: Harcourt, Inc.
- Kotz, David M. 2003. "The Record of Economic Transition" and "Sources and Features of the 'Uzbek Growth Puzzle'," in *Growth and Poverty Reduction in Uzbekistan*, United Nations Development Programme report, edited by Giovanni Andrea Cornia.
- Kotz, David M., with Fred Weir. 1997. *Revolution from Above: The Demise of the Soviet System*. London: Routledge.
- Ministry of Macroeconomics and Statistics of Uzbekistan. 2002. Official data on GDP growth provided to the author for a UNDP project.
- National Bureau of Statistics of China. Various years. *China Statistical Yearbook*.
- Naughton, Barry. 1994. "What is Distinctive about China's Economic Transition? State Enterprise Reform and Overall System Transformation," *Journal of Comparative Economics*, 18, 470-490.
- OECD. 1995. *Short-Term Economic Indicators: Transition Economies*. Paris: Organization for Economic Cooperation and Development.
- RFE/RL Newline. 1999. Prague: Radio Free Europe/Radio Liberty.
- Statistical Communique on the National Economic and Social Development*. Various years. Website [www.stats.gov.cn](http://www.stats.gov.cn).
- Statisticheskoe obozrenie*. 1995. Moscow: State Committee of the Russian Federation on Statistics (Goskomstat).
- World Bank. Various years. *World Development Indicators*.  
\_\_\_\_\_. 2004. *From Transition to Development: A Country Economic Memorandum for the Russian Federation*, draft, April. Washington, D.C.: The World Bank.  
\_\_\_\_\_. 2002. *Transition, The First Ten Years: Analysis and Lessons for Eastern Europe and the Former Soviet Union*. Washington, D.C.: The World Bank.  
\_\_\_\_\_. 1994. *China: Internal Market Development and Regulation*. Washington, D.C.: The World Bank.
- Zhu, Andong. 2003. *Growth, Equity, and State Enterprises: International and Chinese Perspectives*. Unpublished paper.

## Notes

- 
1. Research assistance for this paper was provided by Jackie Morse, Andong Zhu, and Iren Levina. Research funding came from the Political Economy Research Institute of the University of Massachusetts.
  2. Grover Norquist, an influential tax policy advisor to the Administration of U.S. President George W. Bush, stated that his ultimate goal in promoting the large tax cuts enacted by the Bush Administration was “to reduce it [government] to the size where I can drag it into the bathroom and drown it in the bathtub” (interview with Grover Norquist by Mara Liasson on Morning Edition, National Public Radio, May 25, 2001).
  3. Economic development also involves structural changes in the economic and other aspects of society, such as industrialization and urbanization.
  4. The sources for the figures cited for decline in GDP and gross investment are IMF 1993 p. 86 and 1995 p. 1; Goskomstat various years 2000-2005, Table 1.2.; OECD 1995 1/1995 p. 94 and 2/1995 p. 102. Recently the Russian State Statistical Agency (Goskomstat) revised its GDP and gross investment series. Based on the newly revised series, the fall in GDP in the early years was reduced, resulting in a 40 percent decline in 1991-98 and a 46 percent decline in 1990-98 (Goskomstat 2004 Table 1.2). The revised investment series produced a substantially greater decline in investment in the early years and especially in 1998, resulting in an astonishing 89 percent decline in 1991-98 and 90 percent in 1990-98 (Goskomstat 2004 Table 1.2).
  5. The nominal and real devaluations of the ruble were from December 1997 to December 1998. The devaluation was not a temporary one. By December 1999 the real exchange rate of the ruble against the dollar had recovered only mildly, to a level 55 percent below that of December 1997 (Goskmostat, various years).
  6. The slight increase in investment in 1999 accounted for only 0.6 percentage points of the 6.4 percent growth in GDP in 1999, with the remainder accounted for by higher net exports. It is possible that Primakov’s departures from the neoliberal approach can claim credit for raising investment for the first time since the demise of the Soviet Union. However, any such effect played a small role in the turnaround.
  7. Using Goskomstat’s recently revised GDP series, by 2004 Russia’s GDP reached 85 percent of the 1990 level, and it would require two fewer years, until 2007, to reach the 1990 level if the growth rate of 1998-2004 persisted (Goskomstat, 2005, Table 1.2, p. 38.).
  8. Interview with Andrei Klepach, Moscow, June 14, 2004.
  9. Calculated from data in Goskomstat, 2005, Tables 1.2 and 12.5.
  10. The sources are, for Russia, Goskomstat 2000 and 2004, and for the USA, *Economic Report of the President*, various years. A comparison of the ratio of M2 to GDP for such different countries as the USA and Russia is highly imperfect due to institutional factors, but the huge difference between the two ratios does roughly indicate the scale of demonetization of the Russian economy.

- 
11. For a detailed account of this process, see Klebnikov (2000) and Freeland (2000).
  12. See Klebnikov (2000), pp. 90-95.
  13. In December 1994 a unit of Yeltsin's Presidential Guard severely beat members of oligarch Vladimir Gusinsky's security team, causing Gusinsky to flee to London. Yeltsin was angered by Gusinsky's NTV television network's critical coverage of the first Chechen War and also by Gusinsky's financial ties to Yeltsin rival Yuri Luzhkov, the mayor of Moscow. See Freeland (2000), pp. 157-168.
  14. Illegal capital flight is estimated at about \$20 billion per year since 1992. For example, see Institute of International Finance, 1999, p. 10.
  15. Russia's death rate rose from 11.2 per thousand in 1990 to 15.5 in 1994, and then after declining somewhat through 1998, rose to 16.5 in 2003 before falling to 16.0 in 2004. The birth rate fell from 13.4 per thousand in 1990 to 9.3 in 1995 and 8.3 in 1999, before rising to 10.5 in 2003. Deaths have exceeded births by 5 to 6 per thousand since 1993, implying a significant natural decrease in population over time (Goskomstat, 2005, table 5.5, p. 73; Kotz with Weir, 1997, p. 185).
  16. The average growth rates cited hide significant variations over time. Unlike in the Soviet case, China had periods of declining GDP under central planning, during 1959-62 (the Great Leap Forward) and 1966-68 (the start of the Cultural Revolution).
  17. During 1981-95 public investment grew more than 2 percentage points faster than GDP (Zhu, 2003).
  18. In Russia gross capital formation has been in the range 15 to 20 percent of GDP since 1998, far below the percentage for the Soviet Union in the central planning era.
  19. China's continuing control over capital movements enabled it to escape the financial crisis that swept across Asia in 1997.
  20. There is some controversy about the GDP growth rate series for Uzbekistan. Figure 16 is based on official data from the state statistical agency of Uzbekistan. Some outside sources, particularly the IMF, believe that the official data overstate Uzbekistan's growth rate in certain years. However, even the IMF's growth rate estimates for Uzbekistan indicate that it has the best long-term GDP growth performance of the former Soviet republics.
  21. Russia's failure to preserve its pre-existing planning system during the transition explains why most of the population was forced to rely on primitive methods of self-supply of food.
  22. One researcher estimated that about 36 million workers had been laid off by state enterprises during 1996-2001 (Zhu, 2003).