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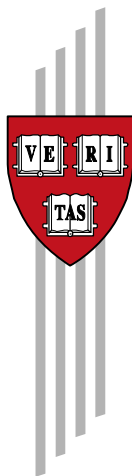
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Wing Thye Woo

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The desirability of WTO membership for China depends on whether its economic successes have been the result of its discovery of new institutional forms (e.g. dual track pricing, SOE contracts, and fiscal contracts) that are optimal for China's particular economic circumstances, or have been the result of the convergence of its economic institutions to those of a typical advanced member of WTO. If the experimentalist interpretation of China's phenomenal growth is correct, then WTO membership is a negative development because it could be a straitjacket for WTO-enforced institutional harmonisation that would constrain China's scope for experimentation. But if the experimentalist interpretation is wrong, then WTO membership is a positive development that will lock China on to the path of deepening economic reform. We assess several recent claims of China's economic exceptionalism, and conclude that they neglected the considerable costs associated with the use of these innovative mechanisms (which have led to the repeal of every one of these "optimal" mechanisms) and that these mechanisms were unlikely to have produced positive results in the transition economies in Europe. Because a major reason for the failure of Gorbachev's reforms was opposition from the entrenched interests within the ruling structure, China's forthcoming WTO accession could be seen as an attempt by reformers to lock economic policies on to a market-oriented course that is costly to reverse.

Keywords: economics of transition, WTO, economic reform in China, dual track pricing, state enterprise reform, privatization, fiscal system, convergence school, experimentalist school

JEL codes: H30, O11, O40, O53, P20, P22, P26, P31, P52

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1. Introduction

The phenomenal growth of China in the last two decades is not in much dispute. What has been the subject of vigorous research and of even more vigorous debate are the causes of this phenomenal growth. While there is broad agreement that the most important part of the answer is the marketization of the economy and its integration into the international division of labour, there is much less agreement over the relative contributions of the many economic mechanisms that were put into motion by these two policies. For example, while virtually all economists would agree with the proposition that complete price flexibility is to be preferred over complete price fixity, there can be disagreement over, the optimal speed at which price flexibility is to be introduced; and the economic mechanism through which a given speed is to be implemented.

Suppose that even if agreement could be reached, 20 percent of prices are to be decontrolled in each of the first two years instead of 5 percent or fifty percent each year, there still remains the choice of totally freeing the prices of 20 percent of the commodities or of allowing twenty percent of each commodity to be sold at freely-determined prices. In this case, there is agreement over the general principle of price flexibility, but not necessarily over the implementation of this principle.

Of course, there is then the more difficult issue of whether the same economic mechanism can be applied successfully across different economic sectors. This is clearly the case in the use of the “contract responsibility system” (CRS) to implement the principle of decentralized decision making. Many researchers will agree that the household responsibility system unleashed sustained productivity improvements in the agricultural sector that boosted economic growth substantially, especially in the 1978-84 period; but many fewer researchers can agree that the enterprise responsibility system generated impressive productivity gains in the state enterprise sector that lifted the overall growth rate significantly, even in the 1984-88 period. Clearly, the difference in outcomes could be due to a combination of the differences in the way that CRS was implemented in each sector and in the structure of agricultural and industrial production. While descriptive differences are obvious and many on the implementation front and on the structural front, our priors are that the production relationships in agriculture and industry are so different that there is a different optimal economic mechanism for implementing the “decentralized decision-making” principle in each sector.

The difference in sectoral outcomes to the CRS mechanism raises many intriguing but disturbing hypotheses. Possibly the most relevant of these hypotheses for China on the eve of its WTO accession is whether the optimal economic mechanism for a particular sector in a foreign country can also be the optimal, or even a useful, economic mechanism for the same sector in China. Specifically, is it possible

that (almost) complete marketization and total internationalization of economic activities may be optimal for the capitalist East Asian economies but disastrous for China's economy? Is this the reason for the vastly different output responses of China in 1979 and of Poland in 1990 when they embarked on their market-oriented reform paths? More specifically, what are the optimal degree of marketization and the optimal degree of international integration for each country? In light of China's high growth since 1978, is China already at, or already close to, the optimal degree on these two fronts such that entry into WTO and the harmonization of Chinese economic institutions to WTO-specified institutional forms will cause an overshooting of marketization and internationalization?

The aims of this paper are to argue that China is still below the optimal degree of marketization and international integration, and that the chosen method of WTO membership to advance marketization and integration is a desirable one, conditional upon supplementary policies being enacted to reduce the adjustment costs. In our view, even with WTO membership, China stands a much greater chance of under-shooting on both fronts than of over-shooting. Our case for China's WTO membership is based on the proposition that China's economic progress since 1978 was the result of China's institutional convergence to a prototype WTO market economy rather than the result of China's economic institutions being different from those of a prototype WTO economy. We will make our case by examining some claims in the literature of Chinese economic exceptionalism as being the cause of the phenomenal growth.

It is important to state at the outset that we agree with some important parts in these claims of Chinese economic exceptionalism. While we recognize China has had the luxury of more than one feasible path to a prototype WTO market economy, we see that the costs and unsustainability of some of these alternative feasible paths have not been adequately laid out. Furthermore, while we also recognize that the prototype WTO market economy accommodates a variety of institutional forms, we hold that there are some key features of a prototype WTO economy that are important for China to converge to. These key institutional features include near absence of state intervention in price-setting, dominance of private ownership, primary reliance on capital markets to allocate investment capital, and overwhelming even-handedness in legal treatment of state capital, domestic private capital, and foreign capital. China has almost achieved the first feature, has made some big strides since 1993 on the second, and is still largely amiss on the third and fourth.

Before starting the discussion, we would like to say a few words about the obfuscating terminology that the debate over transition strategies has generated. A wealth of oxymora has been conjured up because protagonists have sought to attach undeserved positive connotations to their viewpoints. A number of authors have labeled rapid, comprehensive reforms (big bang reforms) as top-down reforms, and slow, partial reforms (incremental reforms) as bottom-up reform. Big bang reforms were hence associated with a reform style that is reminiscent of central planning coercion, and incremental reforms

with a democratic trial-and-error market-learning process. These two associations are largely false and self-contradictory as suggested by the following two considerations.

First, the reliance on markets to allocate resources represents decentralized economic management achieved by empowering individual initiatives. Markets are naturally occurring phenomenon because they render both buyers and sellers better off. The only time when markets are absent is when they are suppressed by the central plan of the state. Marketization means allowing the bottom-up process to run its natural course. Second, reform of a centrally-planned economy means the marketisation of economic transactions and the deep entrenchment of market-supporting institutions such as the criminal justice system to maintain law and order, commercial courts to enforce contracts, bankruptcy courts to encourage prudent lending and enable fresh starts for entrepreneurs, and social safety nets to lower the costs of resource reallocation. By its nature, marketization can be accomplished fairly quickly if desired, but the firm entrenchment of market-supporting institutions cannot be achieved quickly even if desired.

In short, big bang reforms (quick marketisation) means the unleashing of the bottom-up process of individual initiatives on a grand scale, while incremental reforms (slow marketisation) means incremental legalization of the bottom-up process. The amazing semantic sleight of hand that has happened is that the advocates of gradual reform have identified themselves as advocates of the bottom-up approach to economic management! It is time for the misleading terms of “top-down reform” and “bottom-up reform” to be dropped from the transition strategy debate.

The two words “evolutionary” and “path-dependent” are often encountered in the transition literature, and while they are always accurate, they are not always useful. In the strictest sense, rational policymaking is evolutionary and path-dependent by necessity. Policymaking has to be evolutionary because new exogenous shocks are always appearing, and it is nearly always path-dependent because reversals can be expensive, if not impossible. For example, China’s tariff policy is contingent on whether China is already a WTO member or not.

There is one important sense in which the term “evolutionary” is analytically useful. Take the case of bankruptcy procedures. They were not needed during the planning period, and so they were non-existent prior to 1990. With the transition to a market economy, the state faces two policy choices. The first policy is to adopt the bankruptcy procedures of another country after modifying them to accommodate relevant differences in national circumstances, and then to continue to modify them in light of experience. The second policy is to rely on the bottom-up process in the most fundamental sense by encouraging its citizens to come up with private contractual arrangements that would cover the contingency of financial difficulties that the borrowers might encounter. Comparing these two policies, we see that the first promotes institutional evolution in the local sense, and the second choice promotes institutional evolution in the global sense.

In practice, institutional evolution in the local sense entails a pro-active state in the sphere of institution building where the usual operational principle is to adopt a foreign prototype and then modify it through practice.¹ Institutional evolution in the global sense, on the other hand, requires a state that is agnostic and passive about institution building because of its unbridled faith that the demand for institutions will inevitably induce the appropriate institutional innovations. Sachs and Woo (2000) called the first approach “the convergence school of institution building”, and the second approach the “experimentalist school of institution building”.

The misunderstanding over these two approaches to institution building has caused the biggest obfuscation in the debate over transition strategies *for China*. The transition debate *for China* has primarily been a debate over the origins of institutions and the desired direction for institutional evolution and only very secondarily been a debate over the speed of implementing the reform program, even though the debate did focus on speed in the beginning. The real question in the transition debate on China still remains whether a third way exists between socialist planning and capitalist markets.

In sharp contrast, the fundamental academic issue in the post-mortem debate on transition strategies *for Eastern Europe and the former Soviet Union* (EEFSU) is the desired speed for institutional changes because leading EEFSU economists (such as Janos Kornai, 1992) take it for granted that there is no third way. There is clearly no simple answer to the speed issue because "the transition from socialism to capitalism... is a curious amalgam of revolution and evolution."² Some reforms, such as macroeconomic stabilization, have to be done very quickly, and some reforms, such as privatization, have to be done much slower; and in all cases, the decision on speed has to take into account the administrative capacity of the state and the political situation in the country.

It is clear that most of EEFSU have embraced the convergence school of institution building (albeit with different speeds in implementation), but would it be accurate to say that China has followed the experimentalist school of institution building, since many of the critics of quick marketization have explained the gradual pace of Chinese reform as being due to the time-consuming process of experimentation to discover policies and institutions that are optimal for China's economic situation? If the experimentalist interpretation of China's phenomenal growth is correct, then China's forthcoming WTO membership is a negative development because it could be a straitjacket that would constrain China's scope for experimentation. But if the experimentalist interpretation is wrong, then WTO membership is a positive development that will lock China on to the path of deepening economic reform and openness.

¹ The earliest country in the industrial age to implement this operational principle successfully and hence attain first world status is Japan.

² Kornai (2000, pp. 25)

Sachs and Woo (2000) presented a comprehensive survey of China's performance up to 1994 and concluded that China's phenomenal growth had come from its convergence to a prototype WTO economy. Therefore, another objective of this paper is to assess several recent interesting additions to the literature to see whether the Sachs-Woo conclusion still holds and, hence, whether optimism about China's WTO accession is still justified.

2. The Feasibility and Optimality of the Dual Track Reform Strategy

Strictly speaking, "dual track" does not capture the complexity of China's reform policies. In different periods, there was dual-track for the pricing of inputs, output, and foreign exchange; five-track for ownership in the service and light industrial sectors (individual, state, collective, private and foreign); multiple-track for revenue-sharing between the centre and the provinces (Guangdong and Fujian signed lump sum revenue contracts with a 5-year duration, and the other provinces paid varying proportions of their revenue to the centre); multi-track for international trade and foreign direct investments (with Shenzhen having the most liberal regime for the longest time); and a single-track, until recently, for interest rates and ownership in the banking sector.

In this section, we will focus mainly on the dual-track price reform.³ The academic analysis of China's dual track price system (DTPS) has gone through two phases: the partial-equilibrium approach and the general equilibrium approach. Proponents of the DTPS describe it as a Pareto-improving way of introducing price flexibility that encourages growth without arousing political opposition from entrenched interest groups. We find this claim of gain-without-pain to be either factually wrong or politically implausible.

The Partial Equilibrium Analysis (PEA) of Dual Track Pricing

The analytics can be summarized by the following example when there is a light industrial good, and a heavy industrial good, with the following supply and demand relationships in a free market setting. For the light industrial good, we assume

supply curve (marginal cost curve):	$P = 2 + Q$
demand curve:	$P = 12 - Q$ where Q is in units of millions.

For the heavy industrial good, we assume

supply curve (marginal cost curve):	$P = 3 + 2Q$
demand curve:	$P = 12 - Q$ where Q is in units of millions

³ This part draws upon Woo (2000).

Under the free market, see Diagrams 1 and 2, in the light industrial good market: $P = 7$ and $Q = 5$; and in the heavy industrial good market: $P = 9$ and $Q = 3$

For the Central Plan Situation, assume the modus operandi to be where the planner picks the output level in each industry and sets the plan price to equate revenue with production costs of the output quota. Furthermore, assume that the planner creates the typical Stalinist outcome where the light industrial good is under-produced vis-a-vis the free market situation, and the heavy industrial good is over-produced vis-a-vis the free market situation.⁴

Say, for light industrial goods, the planner picks $Q = 2$, and hence sets $P = 7$. The result is a black market price of 10 with the marginal cost being 4. And, say, for heavy industrial goods, the planner picks $Q = 2$, and hence sets $P = 7$. The result is a black market price of 8 with the marginal cost of 11.

The Dual-Track Price System (DTPS) is the situation where the producer is allowed to sell his above-quota output at a freely determined price. Then for the light industrial good, we have:

market price	= 7
market quantity	= 3
plan price	= 3
plan quantity	= 2.

The total quantity of 5 represents an increase in the output of the light industrial good, with no decrease in quantities sold at the lower plan price to the privileged buyers, this is a Pareto-improving situation.

For the heavy industrial good, we have:

market price	= 8
market quantity	= 0 because the marginal cost exceeds the market price,
plan price	= 7
plan quantity	= 4.

The total quantity produced remains at 4 with no losers and no winners. So the overall situation from the DTPS is a Pareto-improving situation.

Complete Price Liberalisation (big bang reform), as is clear from Diagrams 1 and 2, is not Pareto-improving because the privileged buyers of both goods under rationing will now have to pay higher prices, there will be laid-off workers in the heavy industrial goods sector. A big bang will cause a

⁴ As will be documented later, in 1988, the Soviet Union produced 15 times more crude steel per dollar of GDP than the United States, and 8 times more than West Germany and Japan. The Soviet Union also produced five times more refined copper per dollar of GDP than the United States, West Germany and Japan.

collapse in the production of heavy industrial goods, and the resulting disorganisation (*a la* Blanchard and Kremer, 1997) could cause a temporary drop in the production of light industrial goods as well – a situation that is reminiscent of Poland and Russia upon the marketisation of their economies in January 1990 and January 1992 respectively.

The key lesson from the partial equilibrium analysis (PEA) is that partial price flexibility is superior to total price flexibility.

The General Equilibrium Analysis (GEA) of Dual Track Pricing

The inadequacy of PEA is obvious if these two goods comprise the entire production structure, and if there were full-employment and maximum production efficiency under the original central planning situation. In this context, the introduction of dual-track pricing cannot cause an increase in the output of the light industrial good unless there is a decrease in the output of the heavy industrial good – and how could the occurrence of the latter still make the DTSPS Pareto-improving?

Lau, Qian and Roland (2000) answered this question by claiming that the light industrial good supplier will execute the following sequence of actions:

- (a) go into the market for the heavy industrial good and buy (at the free market price) the rights to some of the planned output that was allocated to privileged consumers (at the free market price). Say that he bought the rights to X units of the heavy industrial good.
- (b) tell the heavy industrial good producer to reduce his production by X units and send the released workers to work in the light industrial good sector
- (c) hire the newly released workers from the heavy industrial sector and expand the production of the light industrial good by Y units.

The heavy industrial good producer is happy to cooperate because he now makes a positive profit from his costs having decreased more than his revenue. One of the possible outcomes is that $X=1$ and $Y = 3$, which makes the dual tracking outcome the same as the free market outcome. The important prediction is that the DTSPS, in a general equilibrium setting, will cause one sector to expand and the other sector to shrink as in complete price liberalisation, and this DTSPS-induced adjustment is contractual and mutually beneficial in nature.

For policy purposes, both PEA and GEA offer the same advice: limited price deregulation is better than complete price deregulation. Complete price deregulation might produce the same input allocation and output composition as the DTSPS, but the former definitely generates resentment against the government while the latter does not.

Critique of the Preceding Two Analyses of the Dual Track Price System

It is ironic that the supposedly flawed PEA is factually more correct than the theoretically coherent GEA. Table 1 shows that the output of both the light and heavy industrial sectors went up every year following the introduction of the DTPS in 1985.⁵ Light industrial output increased 64 percent in the 1984-87 period, and heavy industrial output increased 55 percent. The Lau, Qian and Roland's prediction of a (voluntary) contraction in heavy industrial output upon marketization of the economy is contradicted by the data, suggesting that their elaborate general equilibrium analysis could be an exercise in false precision. Clearly, we need an explanation other than the DTPS to explain why China grew so fast upon marketization.

Table 1 shows two interesting facts that suggest an alternative explanation for other issues. First, output from industrial SOEs increased every year in the reform era, but the state sector's share of total industrial output declined secularly from 78 percent in 1978 to 28 percent in 1998. This means that the bulk of the increase in industrial output came from the non-state sector. Hence, fast growth of industrial output should not be attributed entirely to the incentive effect of dual-track pricing. Most of the credit, in our judgement, should be given to the legalization of the dual-track ownership system in the industrial sector in 1984. The legalization of non-state firms allowed non-state industrial enterprises to be established in the rural areas, the famous township and village enterprises (TVEs).

Second, the non-state sector did not grow by obtaining their labor from the state sector through contractual agreements, the key mechanism behind the Lau, Qian and Roland's assertion of "gain without pain". State employment was 17.9 percent of the labor force in 1984 (the eve of the introduction of the DTPS to the industrial sector) and it rose to 18.3 percent in 1989 (the eve of the replacement of the DTPS with almost complete price decontrol). The state sector in 1989 employed 14.7 million workers more than in 1984, and 26.6 million more than in 1978. In employment terms, China was certainly not growing out of the plan either in absolute or in relative terms.⁶

The labor that fuelled the fast expansion of the non-state industrial sector came out from agriculture, a sector that was not identified either by Lau, Qian and Roland as an important contributor to China's high growth rates after 1984. Part A of Table 2 shows that employment in the primary sector declined from 71 percent in 1978 to 50 percent in 1998.⁷ Therein, we have the *deus ex machina* of China's growth. The marketization and internationalization of economic activities generated substantial productivity increases, not only by enlivening the agricultural sector in the 1979-84 period and by creating a dynamic non-state

⁵ The rise of the light industrial component of the industrial sector from 39 percent of total industrial output in 1978 to 48 percent in 1988 and 51 percent in 1998 reflected, in part, its suppression under central planning.

⁶ State employment was 109.5 million in 1996 compared with 74.5 million in 1978.

⁷ This decline in agricultural employment is likely to be understated because it does not take illegal migration into account.

sector from 1984 onward, but also by moving low-productivity agricultural workers into higher-productivity jobs in the secondary and tertiary sectors.⁸ In short, China's marketization and internationalization policies initiated the non-zero sum process of economic development, moving China away from a subsistence peasant economy and causing agriculture to drop from 41 percent of GDP in 1978 to 18 percent in 1998.

Part B of Table 2 explains why Russia's GDP fell upon marketization of its economy. The Russian industrial sector, especially the heavy industrial component⁹, was much bigger than what a market economy would require. Industrial output accounted for 49 percent of Russia's GDP in 1988 compared to 24 percent of U.S. GDP in 1986. Given the relatively small proportion of labor in Russian agriculture compared to China, 19 percent versus 71 percent, a substantial amount of the labor needed for the growth of new light industries and new service activities had to come from the heavy industrial sector. The collapse of Russia's heavy industries was necessary in order to release the labor put there by the central plan.¹⁰ The salient point is that the marketization of the over-industrialised Russian economy triggered the almost zero-sum (certainly so, in the short run) process of economic restructuring.

The importance of how existing structural conditions shape the output response to marketisation is captured in Diagram 3, which shows a three-dimensional production possibility frontier of output from agriculture, light industry and services, and heavy industry. Point B on plane NOP denotes the production mix of a developed private market economy that is integrated into the international division of labor. Point A, which is also on plane NOP, represents Russia on the eve of its marketisation in 1992, and point C on plane KLM represents China in 1978. The difference between plane NOP and plane KLM is that the former represents economies that are more advanced in their industrialisation and urbanisation.

In Diagram 4, we show in a heuristic picture of that the movement from C to B is likely to be a less painful process than the movement from A to B. We project the KLM plane onto the NOP plane to produce the K'OM' plane, with C' being the projection of C. Within the context of the NOP plane, the movement from C' to B is Pareto-improving, while the movement from A to B involves the shrinking of

⁸ Woo (1998) estimated that the reallocation of Chinese agricultural labor into industries and services added 1.3 percentage points annually to the GDP growth rate over the 1985-93 period.

⁹ This point is very well seen in the production of the following metals expressed in thousands of metric tons per US billion dollars of GDP for the following countries in 1988 (from Lipton and Sachs, 1992):

	Soviet Union	United States	West Germany	Japan
Crude Steel	280.0	18.49	34.35	36.47
Refined Copper	1.71	0.38	0.36	0.33
Primary aluminum	4.28	0.80	0.62	0.01

¹⁰ Sachs and Woo (1994) pointed out that there had to be a big cut in welfare subsidies provide by the government through the state enterprises before workers could be induced to seek employment in the new non-subsidized private sector.

the industrial sector. More generally, the movement from C to A is Pareto-improving because the marginal value product of labor (MVPL) is lowest in agriculture. Chow (1993) found the marginal value product of labor in China in 1978, measured in 1952 prices, to be 63 yuan in agriculture, 1027 yuan in industry, 452 yuan in construction, 739 yuan in transportation and 1809 yuan in commerce. This is the true source of the Pareto-improving outcome in China's economic reform, not the dual pricing system.

An Important but Ignored Cost of the DTPS

One of the biggest claims of virtue for the DTPS is that by avoiding the creation of losers, it does not generate political opposition to economic reform (except, of course, from central planning ideologues). We find such a claim to be dubious because dual track pricing creates opportunities for corruption and serious corruption can undermine the political legitimacy of the government, if not also, the political stability of the country. In our understanding of the history of Chinese reforms, the DTPS was an unsustainable economic mechanism, not only from the management viewpoint of extreme difficulties in administration, but also from the political viewpoint of maintaining the cohesion of the ruling coalition.

To see this point, it is important to first note that the DTPS was only one component of the serious attempt (beginning in 1984) to improve the rationality of the state-owned enterprise (SOE) system, the other component was the devolution of decision-making power to the SOEs. The political cost of the DTPS, as we will point out, came from its interaction with the operational autonomy of the SOEs in an unexpected way.

The plan track for inputs conferred instant profits upon the favored purchaser upon reselling quota inputs in the free market. Many children of top leaders were able to make purchases of inputs at plan prices, and re-sell them at large profits. The general public was not happy with this widespread corrupt practice. The devolution of operational autonomy to SOEs in a soft budget situation caused demand for investment credit to soar, and the accommodation by the state banks of this demand enabled inflation in 1985-89 to reach levels not seen since 1949.¹¹ It was therefore natural that the general public linked the large illegal profits of the dual pricing system with the high inflation, and perceived the inflation to be the result of price gouging by corrupt officials. This general perception brought public unhappiness with the corruption to new heights, which led to demonstrations against corruption and inflation in quite a number of large cities at the end of 1985 and 1986.

To address this social unrest, Hu Yaobang, then head of the Communist Party of China (CPC), started arresting corrupt officials, and the sons of several top conservative leaders were apprehended. This crackdown was interpreted by some conservative leaders as an excuse by the liberal faction to depose them, and this intensified the opposition to the continued leadership of Hu Yaobang on the grounds of

administrative incompetence (look at the high inflation) and ideological revisionism (look at his introduction of material incentives). By aggravating the infighting inside the ruling coalition, the plan track contributed to the dismissal of Hu Yaobang as general secretary of the CPC in January 1987.

It is worthwhile to quote two accounts of this matter at length. According to Richard Baum (1994, p.176-177):

"...[In 1986] Hu Yaobang raised the ire of Hu Qiaomu [Politburo member] by proposing to formally charge the latter's son, Hu Shiyang, with criminal corruption ... [The] incident provoked an immediate reaction among powerful party elders..a campaign to oust Hu Yaobang quickly took shape. At the same time, Hu Qiaomu reportedly threw himself at Deng Xiaoping's mercy, tearfully imploring the paramount leader to show mercy toward his errant offspring..

The highest level *gaogan zidi* [offspring of a high-ranking cadre] to be judicially punished was the daughter of General Ye Fei, the former commander of the Chinese Navy .. In 1982 the general..had sharply criticized Hu Yaobang for failing to halt the spread of bourgeois liberalization.

Other *gaogan zidi* who came under criminal investigation in this period included the prodigal offspring of conservative party elders Peng Zhen and Wang Zhen [both Politburo members]. Like Ye Fei and Hu Qiaomu, Peng and Wang had been vocal critics of bourgeois liberalization, and the raising of allegations of corruption against their children thus carried a strong hint of political retaliation."

According to Joseph Fewsmith (1994, p.177):

"In January 1986, Hu Yaobang presided over a huge rally of 8,000 cadres..called to address the issue of corruption... A special committee headed by Hu Yaobang's associate Qiao Shi was established within the Central Committee to root out corruption. In February, ..three sons of high-level cadres were executed. There were soon reports that the children of a number of conservative party leaders, including Peng Zhen, Hu Qiaomu, and Ye Fei, were under investigation, suggesting that Hu Yaobang was targeting his critics. Moreover, the decision to set up a special committee within the Central Committee to tackle this issue appeared to be a challenge to the CDIC [Central Discipline Inspection Commission], headed by Chen Yun [leader of the conservative faction], as the agency of discipline within the party."

Deng Xiaoping's solution to the growing unrest within society and within the ruling coalition was not to arrest the profiteers but to end the dual-track price system that fostered such conflicts within the ruling coalition as a byproduct. This is why, in the middle of unprecedented (since 1949) inflation, in May 1988 Deng Xiaoping publicly urged that comprehensive price reform be finished within three to five years. The memorable slogan for this campaign was *zhuang jiage guan* (crash through the price obstacle).

The reality was that the working of the dual-track price system generated great social pressures to punish the profiteers but such acts threatened the viability of the ruling coalition. The choice facing the CPC elite was to either maintain the political coalition or maintain the dual track price system. For the Chinese politicians, the choice was a no-brainer. This is why price liberalization was brought to virtual

¹¹ Fan and Woo (1996) discuss this systemic proclivity toward high inflation.

completion in the 1990-91 period even though this was the time that the pro-plan conservative faction had the upper hand in policymaking (in the aftermath of the June 1989 Tiananmen incident). Political reality is the reason why the plan track was reduced steadily even though this act was not Pareto-improving, and even though this contradicted the ideological position of the conservative faction.

3. China's SOE Reform: Succeeding Where Others Have Failed?

After the 1993 identification by the CPC that "ambiguity in property rights" had been a major factor behind the inefficiency of the SOE sector, significant privatisation of small and medium SOEs have occurred in a number of provinces. The notion that SOEs are generally un-reformable and hence needed to be privatised has been, and still is¹², an issue of great debate among China analysts, as exemplified by the exchange between Woo, Fan, Hai and Jin (WFHJ, 1994) and Jefferson, Rawski and Zheng (JRZ, 1994) over WFHJ's (1993) rejection of JRZ's (1992) finding of positive total factor productivity (TFP) growth in the SOE sector.

The WFHJ-JRZ debate started with the observation in WFHJ (1993) and Woo, Hai, Jin and Fan (WHJF, 1994) that the estimated deflators for value-added in JRZ (1992) and Groves, Hong, McMillan and Naughton (GHMN, 1994 and 1995), three studies that found large positive TFP growth in the 1980-89 period, declined secularly over their sample periods when the consumer price index (CPI) rose steadily. Such opposite trends between the CPI and the value-added deflators (VADS) created by JRZ's and GHMN's deflation methods is troubling because such occurrences are internationally unprecedented.

WHJF pointed out that the condition for a secularly declining VAD is given by:

$$[(P_t^G - P_0^G)/P_0^G] < [P_0^I M_t / P_0^G Q_t] * [(P_t^I - P_0^I)/P_0^I] \quad \text{where}$$

M_t = intermediate inputs in period t in physical units;

Q_t = gross output in period t in physical units;

P_t^G = price of gross output in period t, (with t = 0 the base period); and

P_t^I = price of intermediate input in period t.¹³

Alternatively, the condition for a declining VAD can be rewritten as:

$$[(P_t^G - P_0^G)/P_0^G] < [1 - (GVA_0 / GOV_0)] * [(P_t^I - P_0^I)/P_0^I] \quad \text{where}$$

GVA_0 = gross value added in time t measured in base prices; and

GOV_0 = gross output value in time t measured in base prices.

¹² Recently, Nolan and Wang (1999) offered a positive assessment, while Chen (1998) offered a negative assessment.

¹³ The legacy of central planning is that at the beginning of industrial reform, prices of intermediate inputs to industry were artificially suppressed and prices of industrial goods artificially raised in order to concentrate revenue in the industrial sector to make revenue collection convenient for the state. So we expect $[P_0^I M_t / P_0^G Q_t]$ to be much smaller than unity.

WHJF suggested that the high TFP growth in JRZ (1992) and GHMN (1994, 1995) and the declining VAD were the joint results of under-deflating gross output and over-deflating intermediate inputs. This suggestion implicitly assumed that China's production structure (GVA_0/GOV_0) was similar to that in other economies in order to produce positive co-movements between VAD and CPI.

JRZ (1996) rejected WHJF's suggestion of incorrect deflation, and attributed the declining VAD to China's industrial structure differing significantly from those in the advanced market economies. The alleged Chinese economic exceptionalism is that China's manufacturing sector had an usually low (GVA/GVO) ratio, and they computed it to be 46% for the United States, 40% for Japan, 45% for West Germany and 44% for the United Kingdom compared to the (GVA/GOV) ratio for China, which was 33% in 1980, 31% in 1984, 29% in 1988, and 25% in 1992.

We identify two difficulties with JRZ (1996)'s defence. The first difficulty is that the definition of the official Chinese value added data used by JRZ (1996) may be different from the definition of value added used in the advanced market economies. Specifically, there are two commonly used definitions of value added in China, one excludes some payments to intermediate factors and the other definition includes them. We will call them GVA-1 and GVA-2 respectively. GVA-2 matches the way that the US Census calculates GVA, and the US (GVA/GOV) ratio cited by JRZ had the GVA calculated as GVA-2. Now if the official ratios for China reported in JRZ were constructed using GVA-1, then it is not surprising that (GVA/GOV) is so low in China compared to the U.S.A – but then this would be a comparison of apples and oranges.

The second difficulty with JRZ's finding of an unusual industrial structure for China, even if their value added data was constructed with the second Chinese definition, is that this is a very fragile finding, not a definitive finding. JRZ's proposition, which is based on Industrial Yearbook data, does not hold when the 1987 Input-Output Table data are used instead. The Industrial Yearbook data are based on the financial reports (similar to information given to the industrial census) filed by the enterprises, while the Input-Output Table data adjusted the industrial census data to be compatible with economy-wide input-output flows.

Table 3 reports the GVA/GOV ratio for different sectors calculated from different sources and according to different definitions of GVA. Column (i) reports the ratio as reported in the 1987 Industrial Yearbook (JRZ's data source). The ratios in column (ii) and (iii) are calculated from the Input-Output Table. Column (ii) is calculated using GVA-1 (i.e. using the Chinese national account method), and column (iii) is calculated using GVA-2 (i.e. using the US Census method).¹⁴ The 1987 (GVA/GOV) ratio for the Chinese industrial sector was 26.5 percent according to the Industrial Yearbook, 31.4 percent according to the Chinese national account method, and 42 percent according to the US Census method.

The 1987 ratio for the U.S.A. using the US Census method was 44 percent. Table 3 also shows that each of China's industrial sectoral (GVA/GOV) ratios calculated according to the US Census method was not only larger than the (GVA/GOV) ratios from the Industrial Yearbook but also closer to the US sectoral (GVA/GOV) ratios. When we know that the Chinese and US GVAs are calculated in the same way, there are no great differences between the industrial structures of the two countries.

JRZ's finding of low and secularly declining (GVA/GOV) ratio for China suggests to us under-measurement of GVA caused by the growing appropriation of capital income by SOE personnel. Fan and Woo (1996) have shown that one unintended result of granting increasing operational autonomy to the SOE managers is that they have, over time, learned how to use various accounting subterfuges to overstate production costs in order to transfer enterprise income to themselves and the workers. This is why (GVA/GOV) calculated from the financial information supplied by the enterprises has been declining steadily in the reform period, and why the adjustment of GVA, to be compatible with economy-wide flows, produced much higher (GVA/GOV). This also explains why China's SOEs have been running greater losses every year, even in years of high growth and in sectors where entry by non-state enterprises has been minimal.¹⁵

In our opinion, this steady stripping of state assets may subvert political legitimacy much more than a transparent method of privatization would. The increasing public outrage over the inequity of the informal privatization of the SOE sector is well captured in a recent book by He Qinglian who wrote that the SOE reform has amounted to:

“a process in which power-holders and their hangers-on plundered public wealth. The primary target of their plunder was state property that had been accumulated from forty years of the people’s sweat, and their primary mean of plunder was political power.”¹⁶

Just like their compatriots in EEFSU, Chinese SOE managers focus more on the looting of their firms than on improving their operations. In a study of SOEs in Chongqing, Chen (1998) reported:

"Municipal officials often find that factory directors appointed to money-losing firms do well and bring the firms out of the red in the first two years, and then start to take part in graft, embezzlement, bribery and, most frequently, pirating state assets."

¹⁴ Ren Ruoan (private communications) calculated column (ii) and (iii) of Table 3.

¹⁵ JRZ (1994, pp.240) criticized WFHJ (1993) for using a survey of urban residents to calculate the indirect income of SOE workers because the data included “earning from second jobs, royalties, lecture fees, and transfer payments.” What WFHJ (1994) did not mention in their reply was that this criticism was invalid because JRZ thought that WFHJ (1993) were using Table 8 in Zhao (1992) when WFHJ were actually using Table 9 - which was based on the bank records of SOE transactions, and hence did not contain information on the "typical" worker’s income from royalties and lecture fees.

¹⁶ He Qinglian, Zhongguo de Xianjing, (China’s Pitfall), Mingjing Chubanshe, Hong Kong. The translated quote is from Liu Binyan and Perry Link, “China: The Great Backward?” The New York Review of Books, October 8, 1998, pp. 19.

For practical purposes, the TFP debate is over. There is now no doubt about which side of the debate the Chinese government has come out on. Premier Zhu Rongji declared back in 1996, right after four years of double digit economic growth, that:

“The current problems of SOEs are excessive investments in fixed assets with very low return rates, resulting in the sinking of large amounts of capital; low sales-to-production ratio giving rise to mounting inventories. The end result is that the state has to inject an increasing amount of working capital through the banking sector into the state enterprises.”¹⁷

The announcement at the 15th CPC Congress in September 1997 that there would be a determined effort to greatly diversify the ownership structure was the logical outcome of the above official verdict on the performance of the SOE sector, and of official concern about the political repercussions of the accelerating process of spontaneous privatization.

Facing the Perils of Privatization, Chinese-Style

There are two analytical divides in describing the wide array of privatization practices. The first divide is between individual sales and mass privatization¹⁸; and the second divide is between insider privatization and outsider privatization. These two divides are not mutually exclusive. Management and employee buy-outs are insider privatizations and direct sales to third parties are outsider privatizations. Voucher privatizations with generous concessions to employees of the SOEs are insider privatizations (e.g. Russia), and voucher privatizations conducted on a level playing field (e.g. the Czech Republic) are outsider privatizations. For some transition economies, mass privatization had appeared attractive because individual sales, in the absence of developed capital markets, would have taken too long and the perverse incentives facing the SOEs awaiting privatization would have generated management problems beyond the governments' ability to handle.

The experiences with mass privatization in Eastern European and the former Soviet Union (EEFSU) show that the task is an extremely difficult one and that the outcomes have consistently fallen below initial expectations. For example, in Russia, the “loans-for-shares” privatization transferred the country's enormous mineral wealth to a group of oligarchs, and the weak administrative and legal structures allowed many managers to take effective control of the privatized firms and loot them instead of improving their operations. In the judgment of Frydman and Rapaczynski (1998), despite the diverse privatization methods, the outcome in most cases in the majority of the countries (especially in FSU) is that control of the firms went to some form of manager-labor coalition, producing what they aptly

¹⁷ "Guo you qiye sheng hua gaige ke burong huan," (No time shall be lost in further reforming state owned enterprises), speech at the 4th meeting of the 8th People's Congress, People's Daily, Overseas Edition, March 11, 1996.

¹⁸ Mass privatisation of course does not mean unloading all the SOEs at once, it means selling a large block of the SOE sector in each session.

described as “capitalism with a comrade face.” Privatization has certainly not unleashed massive productivity increases.

Furthermore, the EEFSU experiences warn that *mass* privatization is an exceedingly dangerous business politically, no matter how it is done, be it outsider privatization or insider privatization. This is because the mass privatization of SOEs generates so much rent that corruption is impossible to avoid, and the resulting corruption inevitably delegitimises the government. Corruption leading to political demise appears to be an inevitable byproduct of *mass* privatization, e.g. Vaclav Klaus in the Czech Republic and Anatoli Chubais in Russia.

Most scholars of enterprise restructuring would now agree that privatization is a necessary, but not sufficient, condition for improved enterprise performance. The emergence of a dynamic privately owned industrial sector from the old SOE sector requires the existence of hard budget constraints, competition, and legal (e.g. bankruptcy courts) and commercial (e.g. accounting standards) institutions that work properly. Since China, like most transition economies, has either inchoate or inexperienced administrative, legal, and economic institutions, does this mean that it should not have begun privatization; least of all, to have accelerated the pace of it recently?

We see two reasons for why the non-stellar outcomes in EEFSU have not discouraged China from moving ahead with privatization. The first reason comes from John Nellis (1999) who points out that “governments that botch privatization are equally likely to botch the management of state-owned firms”. The answer is not to avoid privatizations but to implement more careful privatizations: governments in transition economies should “push ahead, more slowly, with case-by-case and tender privatizations, in cooperation with the international assistance community, in hopes of producing some success stories that will lead by example.”

The second reason lies in that the delay of privatization can be costly to the government politically. Stealing by managers does occur during privatization and creates a social backlash against the government, but the maintenance of the status quo has become increasingly difficult because SOE managers in China know from the EEFSU experience that they are in an endgame situation. The widespread spontaneous privatization by SOE managers could create the same social unrest that would topple the regime.

China has so far avoided widespread organized public dissatisfaction with its partial privatization of the small and medium state enterprises. The central government has given itself an indirect role in the privatization process in order to avoid bearing the brunt of any negative fallout. It works by the central government passing to the local governments the financial responsibility for most of the state enterprises located in their areas. In the case of loss-making enterprises, the local government is forced to either come up with a subsidy or privatize them. The second option has been the common choice. The local

party secretary who gets rid of the loss-makers without arousing local resentment is promoted. But if there is substantial public resentment over the privatization, then the party secretary is reprimanded or replaced for inept implementation of state policy.

The question is whether this strategy can continue to shelter the central government from the public backlash over “inept” privatization, especially when the large state enterprises are privatized? The road to a prototype WTO market is a perilous one for China's policymakers, but it is an unavoidable journey if China is to continue moving up the value-added ladder and become a modern market economy.

4. Fiscal Contracting: The Newest Lesson from China to Russia?

A number of China scholars have observed that local governments in China have been a primary force for economic development. This phenomenon has been called “developmental localism” by Zheng (1994), “local corporatism” by Oi (1992) and “market-preserving federalism” by Montinola, Qian and Weingast (1995). The pro-growth policies of China’s local governments stand in sharp contrast with the “status quo” policies of Russia’s local governments. According to a comprehensive analysis of ten sectors of the Russian economy in 1999, the McKinsey Global Institute (1999) found that:

“In nine of the ten sectors, the direct cause of the low economic performance is market distortions that prevent equal competition. The distortions come from attempts to address social concerns, corrupt practices, and lack of information.

In the manufacturing sectors, regional governments channel implicit federal subsidies to unproductive companies. Such subsidies take the form of lower energy payments and are allegedly intended to prevent companies from shutting down and laying off employees. This puts potentially productive companies at a cost disadvantage, blocking investments and growth on their part.

In the service sectors, where employment should grow, investments by efficient companies are discouraged by the presence of well connected unproductive incumbents who benefit from favorable regulations, weak law enforcement, and privileged access to land or government procurements.

Furthermore, these sector level market distortions are key contributors to macroeconomic instability, because they reduce government revenues and increase its expenditures. Macroeconomic instability itself is another important deterrent to investments.

We found the other often mentioned reasons for Russia’s economic problems to play a much smaller role (e.g. poor corporate governance and lack of a transport infrastructure).”

The prevailing opinion among China scholars is that the enthusiasm of China’s local government’s for economic development came from post-1978 changes in the fiscal relationship between the central and local governments that allowed the latter to keep a greater proportion of the taxes that it collected for the central government. The extreme examples of fiscal decentralization were Guangdong and Fujian who, for long periods in the 1980s, paid fixed lump sum taxes and kept all tax revenue above the quota, i.e. a marginal retention rate (MRR) of 100 percent.

Jin, Qian and Weingast (1999) found in cross-provincial regressions that MRR was positively linked with employment growth in non-state enterprises, and with the degree of SOE restructuring during the

1982-92 period. They claimed that the absence of Chinese-style fiscal contracting (market-preserving federalism) in Russia is the reason for the “status quo” policies of Russia’s local governments. Is this the real lesson from China for Russia in the wake of earlier lessons that turned out to be inapplicable?¹⁹

In the judgment of Blanchard and Shleifer (2000), Chinese-style federalism cannot work in Russia because Russia is now a democratic state and no longer a Leninist state like China. To see their argument, suppose that the local government in a transition economy faces the following two policy choices:

- policy X that requires the local government to prey on private businesses to pay for its expenditure and support the local SOEs that employ a significant proportion of the local work force; and
- policy Y that requires the local government to reduce protection and subsidies to local SOEs (in order to force them to increase efficiency by laying off workers), and to foster growth of new private enterprises by cutting taxes and fees (an action made affordable by the cuts in SOE subsidies).

Now assume the following consequences:

- policy X yields direct benefits to the local government worth b_x , and the probability p_x that the local government will stay in power.
- policy Y yields direct benefits worth b_y , which is a positive function of MRR, and the probability p_y that the local government will stay in power.

Obviously, policy Y will be enacted only if

$$p_y b_y > p_x b_x,$$

or $p b_y > b_x$ where $p = (p_y / p_x)$.

In a Leninist state, p is a policy variable because the central government appoints the local governor, which is the situation in China. So if the central government wishes policy Y to be chosen, it just sets $p_x = 0$ (as long as b_y is positive). Ceteris paribus, an increase in MRR increases b_y , and hence the probability that policy Y will be chosen by the governor, but the level of the MRR is really just “icing on the cake” for a local governor in a Leninist state.

Whereas in a town in a democratic country where the local SOEs employ a large proportion of the workforce, p_y may well be sufficiently close to zero such that jacking up MRR tremendously by the central government will not be enough to induce the local government to choose policy Y.

It is interesting to note that in a country where the central government is committed to maximizing GDP growth, the relationship between MRR and the provincial growth rate may be one where causality

¹⁹ See Woo (1994) for a discussion of some of the commonly claimed “lessons from China” for Russia and Eastern Europe.

runs both ways. The minimisation of revenue losses from the use of MRR to promote the overall GDP growth rate would lead the central government to extend lower MRRs to provinces that have higher growth potential. The higher MRRs given to the southeastern coastal provinces of Guangdong and Fujian could well have been based on this consideration.

The key regressions in Jin, Qian and Weingast are essentially growth equations because the growth rates of provincial employment in the non-state non-agricultural sector are highly correlated with the growth rates of provincial GDP. The Jin, Qian and Weingast regressions do not contain any of the usual independent variables found in Barro-type growth equations, however. Chen (2000) added MRR and other proxies for fiscal decentralization into Barro-type provincial growth regressions and found all of them to have significant negative coefficients over the 1979-93 period. Chen also cited two studies by Justine Lin that found contradictory results about the impact of fiscal decentralization on economic growth. All of these suggest that the empirical case for the effectiveness of fiscal contracting in promoting provincial growth is a fragile one, and that more research is needed.

A priori, the relationship between MRR and the growth rate in China could well be a Laffer-type curve. In some provinces, the larger amount of retained revenue could have resulted in more white elephant projects or larger subsidies to inefficient large SOEs that were deemed too big to fail. The negative coefficient for MRR in Chen's (2000) growth regressions is a warning that China might well have exceeded the optimal value of MRR by the end of the 1980s.

We are of course not denying either that the 1982-93 system of "tax farming" was better than the pre-1979 tax system, or that it stimulated the appetites of some local governments for economic development. Our point is just that China deserved a better tax system than the 1982-93 tax system of annual negotiations with individual provinces – a system that created extraordinary microeconomic distortions and a fiscal crisis for the central government to boot.²⁰ These flaws explain why China replaced fiscal contracting in January 1994 with a tax system that has the value-added tax (VAT) as its centerpiece. The 1983-93 Chinese tax system extolled in Jin, Qian and Weingast was similar to the tax farming system of medieval Europe, and the post-1993 Chinese tax system (at least on paper and in intentions) is similar to the tax systems of modern Europe. The right lesson for fiscal reform in Russia²¹ is the same lesson that China has learned over the last two decades, which is to allow its fiscal system to converge to those of the advanced WTO members.

²⁰ Tsai (2000) has suggested that "market-thwarting federalism" might be a more accurate description of this system. See also Wong (1991) and Wong, Heady and Woo (1995).

²¹ Medieval-style tax farming is still inappropriate for the present Russian economic situation even if one agrees with the "industrial feudalism" characterisation of it by Ericson (1999a).

5. Gorbachev's Application of Chinese-Style Reforms: Two Lessons from Russia to China

It would be historically inaccurate to assume that market reforms in Russia started only in 1992 with the Boris Yeltsin government. The gross inefficiency of the Soviet economy and its slide into technological stagnation during the nomenklatura communism of Leonid Brezhnev in the 1970s had fermented much reformist thinking among Soviet economists. By the time Mikhail Gorbachev assumed political power in May 1985, there were already many established influential economists urging market-oriented reforms, e.g. Boris Kurashvili argued for Hungarian-style market socialism, and Oleg Bogomolov for Chinese-style incremental liberalization.

Gorbachev was not a quick convert to market reforms, however. The first two years of his rule were spent trying to propel the economy out of its doldrums by accelerating the technological level of Soviet industries through large investments in the machine tool industry. The acceleration strategy failed, leading Gorbachev to seek “radical reforms” of the economy. The influence of China’s reform strategy is clearly seen in Gorbachev’s arguments in August 1987 “in favor of family contract, family teams and ... leasehold”²² to be introduced in Soviet agriculture. Gorbachev’s radical reform program was unveiled in June 1987 at the Soviet economic plenum, which passed the Law on State Enterprises and Basic Provisions for Fundamental Perestroika of Economic Management to devolve decision-making power from the ministries to the SOEs. Just like in China, Soviet SOEs were given more freedom in their output choices, and freedom to enter into long-term contractual agreements for purchases and sales; and were allowed to retain part of their profits to use at their discretion e.g. for technological upgrading, and as incentive bonuses. In return, the SOEs were required to do “full economic accounting”, the euphemism for SOEs to be responsible for their losses. As in China, deliveries to the state would still be required (state orders), for which subsidized inputs would be made available to the SOEs, but state orders would be reduced over time to cover only 40-60 percent of all production.²³

The explosive growth China’s non-state industrial sector had made a deep impression on the Russian reformers and inspired them to push for a double track on ownership as well. Academician Leonid Abalkin, a prominent leader in reform thinking, predicted in 1986 that the radical reforms of Gorbachev would, within a decade, enable cooperatives to account for 10 percent of GDP, and private enterprises for 4 percent of GDP.²⁴ Various decrees had been issued earlier to stimulate the cooperative sector, and they were greatly expanded with the adoption of the Law on Cooperatives in May 1988.

The Law on Cooperatives was categorical in making the formation of cooperatives an easy task: “A cooperative is organized at the desire of citizens, exclusively on a voluntary basis. The creation of a

²² Aslund (1991, pp103)

²³ Ellman and Kontorovich (1998, pp103); but Aslund (1991, pp. 127) reported the intended range to be 50-70 percent.

²⁴ Aslund (1991, pp168)

cooperative is not conditional upon any special permission whatsoever by Soviet, economic or other bodies.”²⁵ There was no ceiling set on the number of members, and there was no limit on the number of non-members that could be hired on contract. Furthermore, cooperatives could set their prices according to market conditions. In the words of Yevgenii Yasin, a senior member of the State Commission on Economic Reform:

“The 1987 reform was in many ways an attempt to implement the Chinese model in Russia. It envisioned enterprises, and joint ventures would constitute the free sector, existing alongside the state sector, with its mandatory state orders, fixed prices, and centralized allocation of inputs.” (Ellman and Kontorovich, 1998, pp.169)

The Soviet economy started disintegrating from 1989 onward²⁶, however, and, broadly speaking, there are two explanations about the causes: one, Gorbachev’s Chinese-style reforms unraveled the Soviet economy; and, two, the reforms would have worked if Gorbachev had only tightened repression on his opponents instead of embracing glasnost.

The claim that the reforms caused the collapse comes from two related views about the Soviet economy. The first view is that the existing heavy industrial sector was too large for a marketized Soviet economy, as depicted in Diagram 3. This sector had to shrink because its value added at market prices was negative. Ericson’s (1999b) careful examination of the changes in Russia’s input-output table in 1991-1992 and Berg, Borensztein, Sahay and Zettelmeyer’s (1999) thorough econometric investigation of EEFSU economies support this value-subtracting view of the Soviet-type industrial sector.

The second view is more general, and is based on Kornai’s (1992) argument that systemic stability is assured only when the regime in the political sphere is compatible with the regime in the economic sphere. A totalitarian Communist regime that is ideologically committed to the suppression of private ownership requires for its sustenance a centrally-planned economy, and vice-versa. If the nature of the regime changes in only one sphere, then the stability of the regime in the other sphere will be disturbed, culminating into systemic collapse. This means that unless partial marketization is matched by an appropriate modification in Communist ideology, either the economic reform will be reversed or the existing political regime will be toppled. Hence, in Kornai’s framework, the 1987 Chinese-style reforms removed the last vestiges of coherence within the Soviet political-economy system and precipitated its collapse.

The counter-hypothesis to the views of Ericson and Kornai holds that the Chinese-style reforms would have effected a less costly economic transition for Russia if Gorbachev had only intensified the police state nature of Soviet society instead of lessening it as he did, e.g. Griffin and Khan (1993). The

²⁵ Quoted in Aslund (1991, pp169).

²⁶ For contemporary accounts, see Central Intelligence Agency and Defense Intelligence Agency (1989 and 1990). Malia (1994) gives an excellent analysis of the politics of the period.

reasoning is that a systemic transformation necessarily creates losers, firm political control is therefore required to prevent the losers from creating social instability that would disrupt production. This viewpoint was echoed by Yevgenii Yasin:

“a gradual transition to a market economy [would have required ... a less radical and painful departure from socialist ideals. The secret police and censorship would perpetuate the old ideological cocoon, within which a new economic system would be developing like a butterfly... The last chance was lost in 1989, when Gorbachev’s political reform removed the Communist Party from power. Afterwards, events unfolded spontaneously, no longer under the control of the government or the Party.” (Ellman and Kontorovich, 1998, pp.169)

The first serious problem with the view that political liberalization undermines economic liberalization is the limited validity of the assumption that only a totalitarian political regime can maintain adequate law and order in a society going through economic restructuring. The jackboot of military rule could not prevent Ceausescu of Romania and Soeharto of Indonesia from being deposed by their angry populace. Staying in power requires more than the liberal use of the stick. History clearly shows that carrots and compromise can sometimes be even more crucial.

The second serious problem with the necessity-for-brute-force hypotheses is that it ignores the fact that the bludgeoning cannot be confined just to laid-off state workers on strike, substantial amounts of it would also have to be directed at members of the Communist elite. This is because many Soviet officials who stood to lose their supervisory power over the SOEs had joined the Communist ideologues in sabotaging the implementation of the reforms.²⁷ Would the Communist Party of the Soviet Union have accepted Stalin-style purges by Gorbachev in his de-Stalinization of the economy? A positive answer is highly debatable because of the seemingly ironclad self-protective consensus of “live and let live” among the post-Stalin Communist elite.

In trying to assess the relative merits of these two broad explanations for the disintegration of the Soviet economy, it is instructive to note how Gorbachev reacted to the failure of his Chinese-style reforms. He first replaced democratic centralism with open popular elections, and then authorized Academician Stanislav Shatalin to draft a plan that would transform the planned economy to a market economy in 500 days.²⁸ These actions suggest that Gorbachev had concluded that the biggest obstacle to the development of a market economy was the Communist Party itself, and that gradual reforms could not work in the Soviet Union.

Of the many interesting lessons for China from Gorbachev’s unsuccessful Chinese-style reforms, we single out two that concern the viability of continued deepening of economic reform and opening. The first lesson derives from the fundamental message in Kornai’s (1992) analysis that true systemic stability

²⁷ See accounts by Vladimir Mozhin and Vadim Medvedev in Ellman and Kontorovich (1988, pp.151-154).

²⁸ For details, see Yavlinsky et al (1990).

requires that the political regime be compatible with the economic regime. Sustained economic prosperity requires a market economy that is integrated into the international economy, and a true market economy requires (constitutionally-protected) private ownership to be its institutional norm. The lesson for China from Russia is that the avoidance of economic disruptions from political upheavals lies in the willingness and ability of the ruling elite to make adroit changes to the nature of the political regime to accompany the changes in the economic regime. Seen in this light, China's aggressive push for WTO membership, the recent revision of China's constitution to give private property the same legal status as public property, and the reduction of the central bureaucracy by over a third since 1995 are signs of far-sightedness in the third-generation of Chinese leaders.

The second lesson for China from Gorbachev's reforms derives from the fact that the primary political opposition to marketization came from within the Party and that the primary resistance to implementation of reforms came from within the government. Because the policy dissent and implementation sabotage are of the in-house variety, purges could destroy the internal unity required for the political survival of the ruling elite, and for maintaining stable center-provincial political arrangements. The second lesson is that the fourth generation of Chinese leaders will have to come up with creative mechanisms to offset the natural proclivity of loyal party incumbents to favor the status quo over additional institutional reforms.

6. Conclusion

The desirability of WTO membership for China depends on whether its economic successes to date are the result of its discovery of new institutional forms (e.g. dual track pricing, SOE contracts, and fiscal contracts) that are optimal for China's particular economic circumstances, or are the result of the convergence of its economic institutions to those of a typical advanced member of WTO. If the experimentalist interpretation is correct, then the institutional harmonization required by WTO may blunt future growth; and if the convergence explanation is true, then WTO membership will help future growth.

Our dismissal of some recent claims of Chinese economic exceptionalism can be summarized as follows. The data do not support the general equilibrium effects of the DTSPS as predicted by the "gain without pain" analysis of Lau, Qian and Roland (2000). The serious flaw of the DTSPS that has been downplayed in their paper was the widespread corruption that it spawned, and the political disunity that the corruption created. It was because of the economic and political unsustainability of the DTSPS that it was replaced by complete price liberalization in 1990-91, despite the fact that this was not a Pareto-improving change.

Jefferson, Rawski and Zheng (1996) defended their finding of a significant positive TFP growth rate from charges of implausibility by claiming that China's industrial structure was markedly different from those of the advanced capitalist economies. Their claim does not hold when the industrial structure is calculated from Input-Output data. In a way, the recent acceleration of privatization in China definitively settles the argument of whose estimation results are more plausible. Since the EEFSU experience shows that privatization can be politically dangerous for the government implementing it, this new direction in SOE reform will require unusually skillful political management by the Chinese leadership.

The fiscal decentralization that took the form of province-specific tax contracts rendered the revenue of the local governments more dependent on the local level of economic development, and hence induced many of them to promote local growth. The negative byproducts of the tax contracts were local protectionism, industrial duplication, and a great reduction in the ability of the central government to undertake pressing infrastructure investments and poverty alleviation projects. Finally, the empirical validity of the positive growth impact of fiscal decentralization, after the influences of other variables are controlled for, is still an open question.

The uniform tax system introduced in 1994, which is similar to the tax systems of the advanced members of the WTO, is a definite improvement over its predecessor. So if there is any lesson for Russia to learn from China's fiscal decentralization, as claimed by Jin, Qian and Weingast (1999), it should be based on the present tax system and not on the pre-1994 tax system. In any case, as pointed out by Blanchard and Shleifer (2000), it is unlikely that the kind of decentralized tax system designed for a politically-centralized country will produce the same outcomes when applied to a politically-decentralized country.

The failure of Gorbachev's 1987 reforms suggests, first, the limited applicability of China's double track transition strategy to EEFSU economies, and, second, that the greatest challenge to the deepening of economic reform and opening may come from the entrenched interests within the ruling structure. China's forthcoming WTO accession could be seen as an attempt by reformers to lock economic policies on to a course for further marketization and internationalization that is costly to reverse.

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Table 1: Production of Light and Heavy Industrial Goods, and State Sector Employment, 1978-1998

	<u>Index of Gross Industrial Output, 1978=100</u>		<u>Composition of Gross Industrial Output, in 1995 prices, %</u>		<u>Proportion of Labor Force in State-Owned Units, %</u>	<u>Proportion of Gross Industrial Production by State-Owned Units, current prices,%</u>
	Light Industry	Heavy Industry	Light Industry	Heavy Industry		
1978	100.0	100.0	38.9	61.1	18.6	77.6
1979	110.0	108.0	39.3	60.7	18.8	78.5
1980	130.8	110.1	43.1	56.9	18.9	76.0
1981	149.5	105.1	47.5	52.5	19.1	74.8
1982	158.2	115.5	46.6	53.4	19.1	74.4
1983	172.9	130.6	45.7	54.3	18.9	73.4
1984	200.7	152.2	45.6	54.4	17.9	69.1
1985	246.3	182.9	46.1	53.9	18.0	64.9
1986	278.5	201.6	46.8	53.2	18.2	62.3
1987	330.3	235.3	47.2	52.8	18.3	59.7
1988	403.3	280.9	47.7	52.3	18.4	56.8
1989	436.4	305.9	47.6	52.4	18.3	56.1
1990	476.6	324.9	48.3	51.7	16.2	54.6
1991	548.0	372.0	48.4	51.6	16.5	56.2
1992	657.7	479.8	46.6	53.4	16.6	51.5
1993	835.2	611.8	46.5	53.5	16.5	57.3
1994	1,032.3	762.3	46.3	53.7	16.2	37.3
1995	1,268.7	899.5	47.3	52.7	16.1	34.0
1996	1,573.2	1,013.7	49.7	50.3	15.9	36.3
1997	1,801.3	1,132.4	50.3	49.7	15.5	31.6
1998	2,013.9	1,242.2	50.8	49.2	12.6	28.2

Data calculated from State Statistics Bureau (1999)

Table 2: Production in Employment Structure in China, Soviet Union and United States**Part A: China: Change in Production and Employment, 1978-1998**

	<u>Composition of GDP, 1995 prices, %</u>			<u>Composition of Employment, %</u>		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
1978	41.2	34.0	24.7	70.5	17.3	12.2
1979	40.9	34.2	24.9	69.8	17.6	12.6
1980	38.0	37.0	24.9	68.7	18.2	13.1
1981	38.4	35.6	26.0	68.1	18.3	13.6
1982	39.0	34.2	26.7	68.1	18.4	13.4
1983	38.1	34.2	27.8	67.1	18.7	14.2
1984	37.3	33.9	28.8	64.0	19.9	16.1
1985	33.8	35.9	30.3	62.4	20.8	16.8
1986	32.2	36.5	31.3	60.9	21.9	17.2
1987	30.3	37.5	32.2	60.0	22.2	17.8
1988	28.2	38.8	33.0	59.4	22.4	18.3
1989	28.0	38.4	33.6	60.0	21.6	18.3
1990	28.9	38.0	33.0	60.1	21.4	18.5
1991	27.2	39.7	33.0	59.7	21.4	18.9
1992	25.1	42.3	32.6	58.5	21.7	19.8
1993	23.2	44.8	31.9	56.4	22.4	21.2
1994	21.5	47.3	31.2	54.3	22.7	23.0
1995	20.5	48.8	30.7	52.2	23.0	24.8
1996	19.7	50.0	30.3	50.5	23.5	26.0
1997	18.8	50.7	30.5	49.9	23.7	26.4
1998	18.1	51.5	30.4	49.8	23.5	26.7

Part B: Cross-Country Comparison of Production and Employment Structure

	<u>Composition of GDP, 1995 prices, %</u>			<u>Composition of Employment, %</u>		
	United	Soviet	China	United	Soviet	China
	States	Union		States	Union	
	1986	1988	1978	1986	1988	1978
Agriculture	1.9	9.3	41.2	2.7	19.3	70.5
Industry	23.5	48.9	28.9	17.6	28.9	17.3*
Construction	6.1	10.7	5.1	4.6	11.5	**
Services	68.5	31.1	24.7	75.1	40.3	12.2

China data from State Statistic Bureau (1999). Statistics for United States and Soviet Union are from Lipton and Sachs (1992).

* = data includes construction, ** = data included in industry category

Table 3: Ratio of Gross Value Added to Gross Output Value (GVA/GVO, in percent) in 1987
(data supplied by Ren Ruoen)

source of data	<u>Chinese ratios calculated from different data sources and under different concepts</u>			<u>US ratio</u>
	<u>industrial yearbook</u>	<u>input-output table</u>		<u>US</u>
method of calculating gross value added	(i) not really known	(ii) national account concept	(iii) US census concept	(iv) US census concept
Food Manufacturing	13.48	14.94	27.63	32.85
Beverages	25.02	33.55	45.62	44.61
Tobacco Products	5.46	67.10	73.37	64.27
Textile Mill Products	19.21	25.63	35.51	38.84
Wearing Apparel	26.51	29.40	38.81	48.65
Leather Products and Footwear	24.19	27.37	38.97	47.94
Wood Products, Furniture & Fixtures	26.62	31.84	40.75	43.92
Paper Products, Printing & Publishing	28.29	32.19	41.14	55.28
Chemicals Products (incl. oil refining)	27.17	35.11	51.06	29.85
Rubber and Plastic Products	25.55	29.34	38.37	50.06
Non-metallic Mineral Products	40.37	40.98	49.06	52.40
Basic & Fabricated Metal Products	27.05	32.36	39.86	42.94
Machinery & Transport Equipment	33.39	34.00	42.53	44.79
Electrical Machinery & Equipment	29.08	29.03	37.86	55.33
Other Manufacturing Industries	33.20	37.11	46.00	62.78
Total Manufacturing Industries	26.49	31.43	41.62	43.86

GVA/GVO from Jefferson, Rawski and Zheng (1996) data on China are from the Industrial Census

	Total Manufacturing Industries
China, 1980	32.7
China, 1984	31.4
China, 1988	28.5
China, 1992	25.4
USA, 1989	46.2

Price

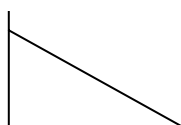


Diagram 1: Light Industrial Good

