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**VIET NAM'S LESSON FOR CHINA:
AN EXAMINATION OF THE SACHS-WOO
HYPOTHESIS**

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This paper examines Sachs and Woo's (1997, 2000) hypothesis on the basis of Viet Nam's experience with her 1989 reforms that China would have grown faster had she followed the *Big Bang* approach to reform instead of the *Gradual* approach. The paper scrutinizes this hypothesis from the viewpoint of accuracy of facts, appropriateness of the characterization, and acceptability of the hypothesis. The paper finds that Sachs and Woo fall short of meeting these criteria. The paper then examines the possible reasons for Sachs and Woo pitfalls and shows that the source of these pitfalls lies in their *subjective* preference for the *Big Bang* approach to reform.

Key words: Economic Reforms, Transition, Viet Nam, China

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Nature does not jump! «Quantum theory does not require the existence of discontinuities: neither in time (quantum jumps), nor in space (particles), nor in spacetime (quantum events)».

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1. Introduction*

In several recent papers, Sachs and Woo (1997, 2000)¹ put forward the hypothesis that Viet Nam's experience with her 1989 reforms shows that China would have grown faster had she followed the *Big Bang* approach to reform instead of the *Gradual* approach. This paper scrutinizes this hypothesis from the viewpoint of (a) accuracy of facts, (b) appropriateness of the characterization, and (c) acceptability of the hypothesis.

So far as facts are concerned, Sachs and Woo (2002) appear to either misunderstand or misrepresent the history of Vietnamese reforms in several important respects. According to them, Vietnamese reforms started to succeed only after 1989. In actual fact, reforms started much earlier and produced significant positive results during pre-1989 years. In fact, it is the success of pre-1989 reforms that made it possible for Viet Nam to implement the 1989 reforms and to withstand the industrial contraction these reforms caused.

With regard to the characterization, this paper shows that Viet Nam's 1989 measures do not satisfy either of *Big Bang*'s two connotations, namely that it has to be the sudden *beginning* of a process, and that it has to be *big*. The paper demonstrates that, first, the 1989 measures were a continuation of efforts made earlier along the same direction. Second, the 1989 changes appear bigger when viewed

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¹ The journal version of the paper, Sachs and Woo (2000), is almost identical to its NBER Working Paper version, Sachs and Woo (1997), except at a few places. Most of the references in this paper are to Sachs and Woo (2000), other than a few cases where we refer to Sachs and Woo (1997).

from outside than they actually were when seen from inside. Third, the 1989 measures did not involve any privatization, regarded generally as a hallmark of *Big Bang*.

With regard to the hypothesis itself, the paper shows that it is not acceptable in its either *prospective* or *retrospective* interpretations. In 1989, when Viet Nam undertook its so-called *Big Bang*, China was already ahead of Viet Nam in terms of reform. Hence in a prospective sense, there was not much scope for China to raise its growth rate by emulating Viet Nam's 1989 measures. On the other hand, China's growth rates during 1978–1989 were already very high by historical and international standards, making it difficult to see how China could have grown any faster during pre-1989 years by imitating Viet Nam's 1989 measures earlier in the period.

The paper finally raises the question why Sachs and Woo fall into the pitfalls above. It shows that the reason of the pitfalls lies in the authors' *subjective* preference for the *Big Bang* approach. This subjectivity leads them to see *Big Bang* and success where these do not exist, and to see failure and departure from *Gradualism* where these are not the case. Sachs' and Woo's subjectivity may have several sources. The epistemological source seems to lie in their lack of appreciation of the dialectics of the reform process. This lacking finds reflection in their reluctance to see (i) the time-specificity of various reform measures and (ii) the organic connection between economics and politics in the reform process and (iii) in their often very linear, mechanistic reasoning.

The discussion of the paper is organized as follows. Section 2 provides the background and splits the overall research question into four constituent parts. Section 3 considers the issue of factual accuracy of Sachs' and Woo's assertions. Section 4 examines the appropriateness of their characterization of the 1989 measures as a *Big Bang*. Section 5 discusses the acceptability of their hypothesis. Section 6 examines the reasons behind Sachs and Woo's pitfalls. Section 7 concludes.

2. Background

Jeffery Sachs is one of the architects of the *Big Bang* approach and has played an active role in its actual implementation in several countries, including Russia. The 'disappointing' results in Russia, on the one hand, and the success of China following the *Gradual* approach, on the other, have led many to question the merit of the *Big Bang* approach. Sachs however remains defiant, and argues that even China's experience supports *Big Bang*. In particular, alluding to Viet Nam's 1989 reforms, Sachs and Woo (1997, 2000) put forward the hypothesis that China would have grown faster had she followed the *Big Bang* approach to reform. The following passage presents their hypothesis in full:

«Suppose that China had in fact pursued more rapid liberalization of the economy, including a harder constraint on state enterprises and a faster unification of product markets and the market for foreign exchange. How much larger would have been the dislocations in the economy? While we cannot answer this crucial question with any precision, it is instructive to look next door at the case of Vietnam. During 1985–88, Vietnam implemented a gradual reform strategy that did not address serious macroeconomic imbalances. The program failed: inflation and import of rice accelerated while growth performance remained unchanged. In 1989, Vietnam enacted an Eastern-Europe style “big bang,” including across-the-board price liberalization, 450 percent devaluation to unify the exchange market and a tight credit policy. The collective farms were returned to family farms with long-term leases. Growth accelerated, inflation ended, agricultural productivity soared (turning Vietnam into a rice exporter in 1989), and small, non-state enterprises proliferated. The “big bang” did not cause an output decline in Vietnam as in Eastern Europe (Sachs and Woo 2000, pp. 16–17)».

The goal of this paper is to examine the validity of this hypothesis. To facilitate the task, we split the research question into the following three constituent questions. First, how accurate are Sachs and Woo with regard to *facts*? Second, how appropriate is their *characterization* of the Vietnamese 1989 reform measures as a *Big Bang*? Third, how acceptable is the Sachs and Woo hypothesis?

3. How accurate are the facts?

We begin with the issue of facts. For that purpose, we first list the main factual points that Sachs and Woo try to make in the passage above. The passage claims that:

- a) The gradualist reforms of Viet Nam began in 1985.
- b) The return from collectivist farming to family farming took place in 1989 and was part of the 1989 *Big Bang*.
- c) The pre-1989 reforms were of no positive effect. As Sachs and Woo put it, «inflation and import of rice accelerated» while «growth performance remained unchanged».
- d) Pre-1989 reforms did not address «serious macro-economic balances».

In order to examine the accuracy of these claims it is necessary to take a brief look at the history of Vietnamese reforms.²

² Detailed accounts of early years of Vietnamese reforms can be found in, among others, Arkadie and Mallon (2003), De Vylder and Fforde (1988), Fforde and Vylder (1996), Riedel (1995), Riedel and Comer (1997), and Tran (1994).

3.1 Pre-1989 reforms in agriculture

Disappointed by the outcome of the economic performance during the immediate post-unification years of 1976–1980, Viet Nam started major reforms in her agriculture beginning in 1981. Viet Nam started off in 1976 with considerable euphoria resulting from Viet Nam’s stunning victory in 1975 over the US and reunification of the country under the banner of the Communist Party of Viet Nam (CPV). The main goal during 1976–80 was therefore the construction of socialism, which in terms of economic policies for agriculture meant collectivization and cooperativization, particularly in the South. At the beginning, both campaigns were conducted with some gusto. However, the perils of imposition of collectivization on a pre-industrial agriculture began to surface soon. Inefficiency of production was the pervasive passive form of these perils. However, in the South, particularly in the Mekong delta, they took the active form of leaving large tracts of land uncultivated and of slaughtering large numbers of cattle.

Alarmed by these developments, and in the midst of the gloom that set in, the Sixth Plenum of CPV CC (held in August-September of 1979), decided to reduce the pace of transformation and to change the direction. In particular, it decided to introduce what came to be known as the «Contract System,» directed towards household/family farming and away from collective farming. The switch was formalized in the form of Resolution 100 adopted by the Central Secretariat of CPV on January 13th 1981. The move was backed by decisions of the 5th Congress of CPV held in 1982.

The *Doi Moi* program adopted by the CPV Sixth Congress in 1986 helped agricultural reforms to progress further. Following the Congress, the National Assembly passed a «Law on Land» in its December 1987 session. This Law, enacted in 1988, conferred long-term private land use rights for agricultural purposes to rural families.³ Also, the Party Resolution No. 10, passed on April 5, 1988 by the Politburo of CC CPV, greatly enhanced the rights of rural families and reduced the legal authority of village cooperatives. This resolution allowed farmers to hold about 40 percent of the contracted output, and thus encouraged them to put in more labor as well as invest capital. In many areas, farmers raised funds for building irrigation works and purchasing draught power (buffaloes and oxen) and even small agricultural machinery. They also took the initiative to apply new technology and introduce new varieties to increase yield.

Were these reforms of no effect, as Sachs and Woo suggest? Contrary to their suggestion, the pre-1989 reforms actually brought about a marked positive change in Vietnamese agriculture (Table 1 and Figure 1). While the average annual growth rate of gross agricultural production for the 1976–1978 period was negative 3.8 per-

³ The «land use rights» are not the same as «private property rights» that include the right to sell the land.

cent, it jumped to 5.1 percent during 1979–1988. If we leave out 1979 and 1980 as years of recovery from natural disasters and wars with China and Cambodia,⁴ the average annual growth rate for 1981–1988 turns out to be 4.4 percent, a significant jump over the previous period’s growth rate. Going across the columns of Table 1, we see that the turnaround was wide-ranging, covering both cultivation and livestock.⁵

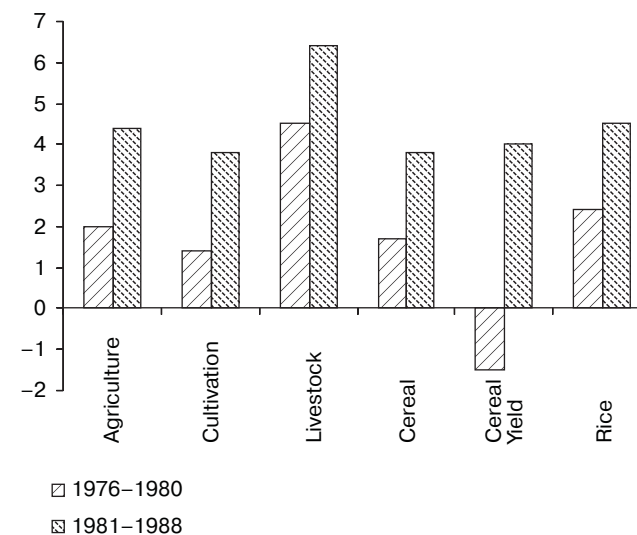


Figure 1: Impact of pre-1989 reforms on the performance of Vietnamese agriculture: Comparison of average annual growth rates (%) during 1976–80 and 1981–88

Table 1 also shows that, contrary to Sachs and Woo’s suggestion, 1989 measures did not have much, if any, positive impact on Vietnamese agriculture. It is true that the overall growth rate of agriculture in 1989 proved to be higher than in 1988. However, this was largely a result of a rebound from a downturn in livestock in 1988.

⁴ In addition, there was considerable decline toward the end of 1970s in the amount of aid that Viet Nam was receiving, primarily from the East European socialist countries belonging to the COMECON (Council of Mutual Economic Assistance) block.

⁵ The cereal production underwent a dramatic improvement, with the average annual growth rate increasing from –4.7 to 4.7 between the periods of 1976–1978 and 1979–1988, respectively. Much of this increase resulted from increase in yield, which is not surprising given that arable land in Viet Nam is very limited. While the yield of food crops had decreased at an annual rate of 9.1 during 1976–1978, it increased at a rate of 4.4 percent during the whole period of 1979–1988. Even Riedel and Comer, who are sympathetic to Sachs and Woo’s view, concede that «the response to this reform was ... a remarkable acceleration in agricultural output» (Riedel and Comer 1997, p. 6).

Looking at cultivation, we find growth rates in 1989 and 1988 to be similar, 7.5 and 7.8 percent, respectively. In fact, the growth rate of paddy production was actually *lower* in 1989 than in 1988, 11.1 compared to 11.9 percent. Furthermore, the performance of Vietnamese agriculture deteriorated sharply in the immediate post 1989 years (Table 1).⁶

Sachs and Woo make much of Viet Nam's export of rice in 1989. According to them, while rice import was «soaring» in the previous years, 1989 measures created a miracle for Vietnamese agriculture, so that all of a sudden she had a huge increase in production and started to export rice. In fact, Viet Nam's annual rate of growth of paddy production increased from 2.4 percent (less than the population growth rate of 3.0 percent) during 1976–80 to 4.5 percent (more than twice the population growth rate of 2.1 percent) during 1981–88 (Tables 1 and 2). Over time therefore Vietnamese had more rice to consume and eventually to export. Per capita consumption of rice rose from 126 to 150 kilogram between 1981 and 1988 (Table 2). Instead of «soaring,» Viet Nam's import of rice during the years immediately preceding 1989 actually *decreased* from 0.4 million ton in 1986 to 0.1 million ton in 1988. Furthermore, Viet Nam's export of rice *increased* from 9 thousand tons in 1981 to 132 thousand tons in 1986 (GSO 2000b, p. 11).⁷ What happened in 1989 is mainly a price effect arising from devaluation, which made export more lucrative than domestic sales. That is why Viet Nam's rice export in 1989 was associated with a significant decline in per capita consumption, which fell from 150 in 1988 to 142 kilogram in 1989, and remained less than the level reached in 1988 till 1993.⁸

3.2 Pre-1989 reforms in industry

Vietnamese industrial reforms also started with the August–September 1979 CPV CC Sixth Plenum. The industrialization strategy pursued during the 1970s was influenced by the Soviet model with emphasis on capital intensive heavy in-

⁶ The annual growth rate of agriculture in 1990 and 1991 proved to be only 1.6 and 1.1 percent, respectively. The production of cereal actually fell in 1990 compared to that of the previous year and the yield of food crops fell in both 1990 and 1991.

⁷ The rising agricultural capability was not limited to rice. Table 2 shows a steady increase in Viet Nam's export of agricultural commodities throughout the 1980s. Between 1981 and 1988, Viet Nam's export of tea, coffee, rubber, peanuts increased by 82.7, 1140.7, 63.8, 6381.8 percent, respectively.

⁸ There is a similarity in this regard to what happened in Viet Nam's oil and gas sector. Viet Nam has been conducting (with Soviet help) exploration for a long time during the seventies and eighties. However, coincidentally oil output for export became available around 1989. It is therefore inaccurate to imply that Viet Nam suddenly became capable to export oil in 1989 as a result of measures taken in that year, just as it is inaccurate to suggest that the production capability to export rice was created overnight in 1989 due to the measures taken in that year. In fact, the rice output increase in 1989 was in part the outcome of coming on stream of some works in the Mekong delta area (Dong Thap Muoi). (I would like to thank a referee for pointing this out.)

dustry, and executed through a command system. This led to inefficiencies. For example, the output-capital ratio decreased from 1.48 in 1976 to 0.87 in 1980 (Tran 1994, pp. 27–28).

The CPV CC Sixth Plenum of 1979 therefore decided to reform the state owned enterprises (SOE) in the direction of self-accounting and self-financing. Following the Plenum's decision, the Vietnamese government promulgated its Decision 25 on January 21, 1981. Under the new system, state-owned enterprises were subject to three plans (hence the name «Three Plan» system). Under Plan One, the enterprises were provided with inputs at subsidized prices and in turn were required to supply set quantities of goods to the state at set prices; under Plan Two, enterprises could produce beyond the amount specified in Plan One and use revenues to purchase additional inputs; Plan Three gave enterprises the right to engage in sideline activities more or less on a free market basis, what became known as the «fence-breaking» (*xe rao*) movement (Riedel and Comer 1997, p. 6). Another decision issued around this time allowed enterprises to link managerial salary payments to output. Enterprises were allowed to retain up to 85 percent of the profits made from outside-plan production, and to use these retained profits for paying bonuses to workers.

These reforms initiated during 1979–81 were strengthened further by the *Doi Moi* program adopted at the CPV Sixth Congress. In general, renovation of the management mechanism, rather than investment promotion, was given priority as the way to enhance industrial production. Following the Congress, the Vietnamese government in late 1987 promulgated the Decree 217 that set forth a broad reform program aimed at putting SOEs on a commercial footing, with increased autonomy and financial responsibility (Arakdie and Mallon 2003, p. 125).

These changes implied altogether different type of relationships among SOEs and among business entities in general, which were now based on economic contracts instead of directives from above. The government established economic arbitration offices to facilitate enforcement of contracts. By creating a fundamentally different environment for SOEs to operate, these changes led to a significant improvement in their performance (Brabant 1990, p. 216).

The pre-1989 industrial reforms were not limited to SOEs. Another direction in which these reforms proceeded was the development of non-state owned enterprises (NSE). First, there was a basic change in the understanding of the role of the government in the industrialization process, which was now recognized more in creating conditions and «building the necessary premises» for industrialization rather than actually carrying it out. Second, in line with the changed attitude, the government took measures to facilitate the creation of enterprises under cooperative and individual ownership. As a result, the number of NSEs jumped from 3799 in 1981 to 350,909 in 1988 (GSO 2000, p. 249). Thus, contrary to Sachs and Woo's

claim, the explosion in the number of NSEs in Viet Nam started as a consequence of pre-1989 reforms and did not wait for 1989 measures.⁹

The increase in efficiency of the state owned enterprises and the rise of the non-state sector combined to bring about a turnaround in Viet Nam's industry. While the average rate of industrial growth during 1976–1980 was only 0.6 percent, it accelerated to 9.0 percent during 1981–1988 (Table 3 and Figure 2).¹⁰ Even Riedel and Comer (1997, p. 6) concede that «in industry, also, the introduction of even a limited amount of economic freedom had a tremendous effect, with industrial growth rising from an average of 0.6 percent in the Second Five-Year Plan to about 7 percent in the Third».

Table 3 also shows that, contrary to Sachs and Woo's claim, 1989 measures did cause contraction in the industrial sector. The growth rate of industrial output decreased from a high 14.3 percent in 1988 to negative 3.3 percent in 1989. The contraction applied to both the state and non-state sectors, whose output declined by 2.5 and 4.3 percent in 1989 after increasing at 15.5 and 12.9 percent, respectively, in 1988.¹¹

3.3 Pre-1989 reforms in trade, service, and crafts

The pre-1989 reforms also extended to the tertiary sector. By allowing free disposal of above-quota output, the Contract System led to the development of a free market in rural areas. This in turn stimulated handicrafts and small scale service sector enterprises. The process benefited further from many complementary measures taken by the government. For example, in early 1987 many checkpoints restricting domestic trade were removed. Many administrative restrictions on private trade were also lifted (Arkadie and Mallon 2003, p. 69).

⁹ As a result of their rapid growth, the share of NSEs in the total industrial output rose from 39.8 percent in 1981 to 43.5 percent in 1988 (Table 3). Another reflection of the growth of NSEs, which were more often under local than central jurisdiction, can be seen in the changes in relative weights of central and local enterprises. As Table 3 shows, between 1981 and 1988, the share of the local enterprises rose from 63 to 67.8 percent while the share central enterprises in total industrial output decreased from 37 percent to 32.2 percent. The percentage change in the weight of NSEs in the total output appears small compared to the dramatic increase in their number. This is because most of the NSEs set up at that time were very tiny in size.

¹⁰ The turnaround was more dramatic in the state sector than in the non-state sector. The average growth rate of industrial output in the state sector rose from -2.7 during 1976–1980 to 8.2 percent during 1981–1988, while the analogous growth rates for the non-state sector were 6.5 and 10.1 percent respectively. The fact that during these years only state enterprises were allowed to enter into joint venture projects with foreign enterprises is one reason for faster growth in the state sector. A similar situation can be seen in the relative changes in the growth rates of the central and local enterprises.

¹¹ The industrial sector remained depressed in 1990, growing at only 3.1 percent, with the non-state sector undergoing a further contraction by -0.7 percent.

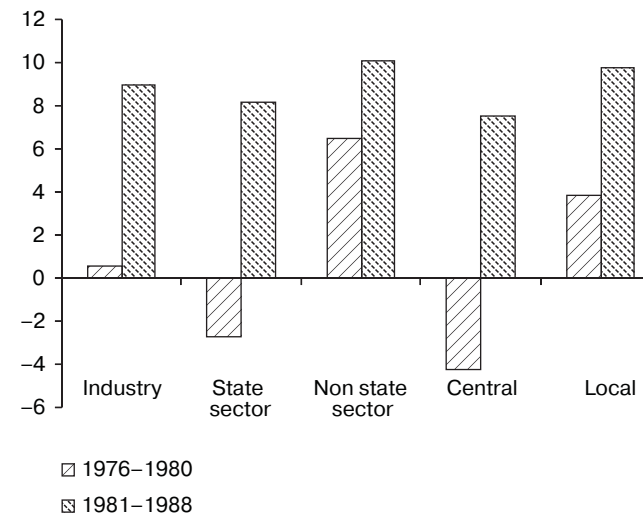


Figure 2: Impact of the pre-1989 reforms on the performance of Vietnamese industry: Comparison of average annual growth rates during 1976–80 and 1981–88

The introduction of the Three Plan system in the industry similarly led to the development of a free market in industrial products, stimulating thereby further increase in trade and services. There was a huge increase in the number of privately owned businesses, shops, restaurants, etc., as reflected in the dramatic rise in the number of NSEs, reported earlier.¹² The reforms in the area of trade and crafts had significant positive impact too. The average growth rate of the service sector (including trade) rebounded from a negative 0.1 percent during 1976–80 to 4.7 percent during 1981–85, and increased further to 8.7 percent during 1986–90.

3.4 Reforms in the external sector

Pre-1989 reforms spread to the external sector too. First of all, there was a significant relaxation of restrictions on participation in external trade. State owned enterprises were now allowed to engage in international trade on their own. Initially, only large scale enterprises were allowed to do so, and were permitted to retain only a portion of foreign exchange earnings. However, soon further reforms

¹² As Riedel and Comer (1997, pp. 9–10) observe, «Private economic activity did, however, blossom in the informal commercial sector immediately after *Doi Moi* as doors of restaurants and shops opened almost as fast as they had closed during the purge of the private sector in 1978». See also Tran (1994, p. 33) Private economic activity obviously flourished further after the reforms of 1989. See Wood (1989) for more details.

ensued, extending to a wider set of state owned enterprises the right to engage in external trade and to retain a larger portion of their earnings.¹³ Second, following the *Law on Export and Import Duties on Commercial Goods* promulgated in December 1987, most quotas were eliminated and replaced by import duties. Third, in 1988 a Foreign Investment Law was passed by the National Assembly. This law provided guarantee against expropriation, allowed full repatriation of profits, and provided tax holidays in order to encourage foreign direct investment. Altogether, these measures made it easier for foreign capital to flow into Viet Nam, and state owned enterprises, which were initially the only ones allowed to set up joint ventures with foreign firms made active use of the opportunities.¹⁴

3.5 Overall positive effects of pre-1989 reforms

The combined outcome of pre-1989 reforms was a significant turnaround in the overall performance of the Vietnamese economy. The average GDP growth rate rose to 5.4 percent during 1981–1988 from only 0.5 percent during 1976–1980 (Table 4 and Figure 3). The turnaround spread across both state and non-state sectors, with their average annual GDP growth rate increasing from –2.8 and 2.0 during 1976–80 to 6.8 and 5.2 in 1981–88, respectively. It is this wide ranging positive turn around of the economy resulting from pre-1989 reforms that made it possible for the Vietnamese economy to withstand the industrial contraction caused later by the 1989 measures.

3.6 Conclusions regarding facts

Thus we see that contrary to the claims by Sachs and Woo, what we have is the following:

- a) Gradual reforms in Viet Nam began in 1981 (and in some sense in 1979) and not in 1985.
- b) The return from collectivist to family farming started in 1981 and was by and large complete before 1989. It was not a part of the 1989 package.
- c) The gradual reforms of pre-1989 years did produce significant *positive* results, which in turn allowed Viet Nam to withstand the industrial contraction caused by 1989 measures.

¹³ As UNDP/World Bank (1993, p. 48) notes, «another early important step in the *Doi Moi* program was the *elimination of the state monopoly of foreign trade in 1988*, allowing the establishment of foreign trade organizations (FTOs) and permitting some firms to engage directly in international trade outside the FTOs».

¹⁴ «In addition to freeing up international trade, another early step was a new law permitting and even encouraging foreign direct investment, by providing tax holidays guaranteeing against expropriation, and allowing full repatriation of profits» (Riedel and Comer 1997, p. 10).

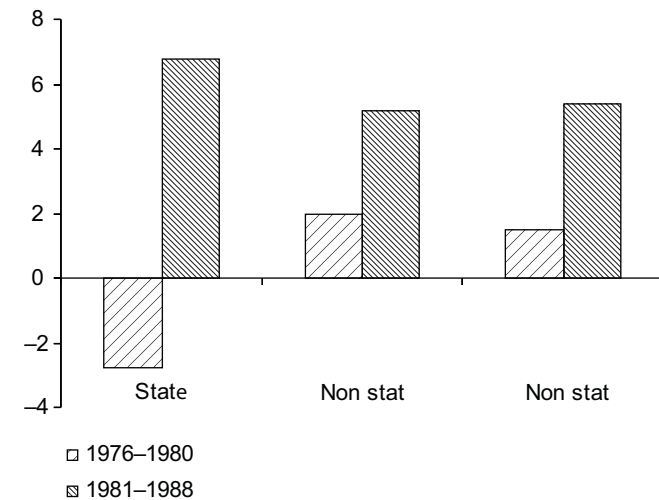


Figure 3: Overall impact of pre-1989 reforms on Viet Nam's GDP: Comparison of average annual growth rate between 1976–80 and 1981–88

d) Some of the pre-1989 reforms were also directed to macro-economic imbalances. We take up this last point for discussion in the next section.

4. How appropriate is the characterization?

Sachs and Woo give the impression that no pre-1989 efforts were directed at Viet Nam's macroeconomic imbalances. A closer look however shows that this is actually not true. According to Sachs and Woo, Viet Nam's 1989 *Big Bang* comprised of the following measures: (a) across-the-board price liberalization; (b) devaluation and unification of the foreign exchange market; (c) tight credit policy; (d) return of the collective farms to family farms with long-term lease. We have already seen that inclusion of item (d) above is incorrect. This leaves us with (a)–(c). Going by the conventional terminology of the transition literature, (a) and (b) can be grouped together as «liberalization measures,» while (c) may be classified as the «stabilization measure». In considering whether it is appropriate to characterize Viet Nam's 1989 measures as a *Big Bang*, we notice that the notion of *Big Bang* usually has two connotations: First, it has to be the (sudden) *beginning* of a fundamentally new process, and second, it has to be something *big*. Let us examine whether the 1989 reform measures satisfy these requirements.

4.1 Viet Nam's 1989 measures: Were they the beginning?

Reforms introduced in 1981, alongside their general positive impact, had some negative consequences. The most prominent among these was inflation. In the pre-reform years, when prices in Viet Nam, as in other centrally planned economies, were controlled administratively, inflationary pressures remained generally suppressed, finding outlet only in illegal, black markets. Reforms since 1981 however led to the development of a thriving market in both rural and urban areas setting the stage for *visible* inflation.

Friedman argued that inflation is always and everywhere a monetary phenomenon. Excess money supply was the main cause of inflation in Viet Nam too. There were two main sources of excess money supply, the first of which was subsidies given to SOEs in the form of budgetary grants and concessionary credits. Introduction of enterprise autonomy under the Three Plan system while SOEs were still very much under soft budget constraints led to some unintended consequences. In particular, the SOEs found it convenient to divert more resources to Plan Three catering for the free market and turn deficits on Plan One catering for the Plan Sector. They could then turn to the state budget and/or banking system for subsidies to cover their deficits on Plan One.¹⁵ The second source of inflation was the subsidies to products for consumption, particularly by urban dwellers. Together, these led to a situation of rising output associated with a rising inflation (Brabant 1990, p. 213; Reidel and Comer 1997, p. 8).

Table 5 helps to understand the process. We see that the budget deficit as percentage of revenue jumped from an average of 2.5 during 1976–1980 to 18.1 in 1981. Alongside, credit on working capital jumped 4.3 fold from 8.3 billion Dongs in 1980 to 36.0 billion in 1981. No wonder that inflation (measured by the General Price Index), after averaging 20 percent annually during 1976–1980, jumped to 70 percent in 1981. During the subsequent 1982–1984 period, the government succeeded in restraining the budget deficit. However this was offset by the expansion of credit, which grew at an average annual rate of 32.8 percent between 1981 and 1984. Accordingly, inflation during this period (1982–84) ran high, averaging about 70 percent per annum. Such high rates of inflation were undermining the gains of reforms, hurting in particular government officials and other state sector employees on fixed salaries. It therefore became imperative, on both economic and political grounds, to control inflation.

In 1985 Viet Nam took some drastic measures to curb inflation. On June 17, 1985, the 8th Plenum of CPV CC adopted the Resolution on «Price-Salary-Money» to eradicate subsidies through equivalent increase in prices and salaries. The

¹⁵ While emphasizing subsidized financing of SOEs as a source of inflation, it should be noted that there is a distinction between «passive» and «active» money, and that SOE credits were not necessarily monetized.

goals were as follows: (i) raise salaries and wages to compensate for the erosion these underwent during 1981–84; (ii) monetize the in-kind components of salary and wages; (iii) bring market and plan prices closer by withdrawing subsidies; and (iv) increase salaries and wages to adjust for rise in prices of commodities resulting from subsidy withdrawal (Brabant 1990, pp. 213–214 and Tran 1994, p. 33).

In addition to the above, Viet Nam in 1985 also undertook currency reform by introducing the new Dong, equivalent to 10 old Dong. To restrict private consumption and improve the money balance in the economy, each person was allowed to convert only a limited amount, with the remaining kept at the State Bank as long term deposits.

Further price reforms were implemented in mid-1987, raising the official price of most consumer goods closer to market prices and reducing even more the scope of rationing. At about the same time (1985–86), Viet Nam implemented substantial devaluation bringing the value of Dong down from 15 for a dollar to 80. The government also took steps to streamline the administration by reducing the number of line ministries, state committees, and other central government agencies, and by rationalizing their structure.

Unfortunately the reforms of 1985 and 1987 failed to control inflation, largely due to the following reasons: first, the additional fiscal burden from increases in salary, monetization of in-kind parts, etc. outweighed the reduction in burden from withdrawal of subsidies. As a result, the budget deficit soared from 3.6 percent of revenue in 1984 to 36.6 percent in 1985, and it remained high, averaging at 28 percent (of revenue) during 1986–1989 (Table 5). Second, the volume of credit, after undergoing a marked contraction in 1985, expanded 15-fold between 1986 and 1988. Not surprisingly, inflation soared and averaged to 222 percent per annum during 1985–1988.

An important cause of inflation lay in the government's failure to mobilize private savings to cover the government budgetary deficit and expansion of credit. There were two reasons for this failure. The first was the government's lack of realization of the importance of and/or ability to ensure positive real interest rates to entice private savings to the formal financial system. The second was the availability, particularly in the south of the country, of dollars as the alternative medium of exchange and savings (in addition to gold). As a result of these two factors, the substantial surplus generated by the successful initial (in particular agricultural) reforms remained outside the reach of the formal financial system. The currency swap of 1985 and associated restrictions on withdrawal of deposits aggravated the situation by making people more apprehensive about putting their savings in the formal system. In absence of domestic savings and in the face of dwindling external savings (loans and grants from the former COMECON countries and western world), the government resorted to inflationary financing.

What is however important to note is that Viet Nam did take important steps during the pre-1989 years to address macroeconomic imbalances, even though these did not prove successful. The measures of 1989 were therefore a continuation of these on-going efforts. Also, these reforms did not end with the 1989 measures, and follow up steps were taken during 1989–92 to keep prices in alignment. The 1989 measures were therefore neither the beginning nor the end of Viet Nam's efforts at macroeconomic stabilization.

4.2 Viet Nam's 1989 measures: Were they big?

Some of the changes introduced in 1989 were indeed apparently *big*. However, a close scrutiny shows that these changes were bigger when viewed from the outside than they were in essence. With regard to unification of product prices, it may be noted that much of the rural sector (representing about 70 percent of the economy and 80 percent of the population) was already tuned to market prices and operated outside plan prices. Hence unification of agricultural product prices did not have much effect in rural areas. Similarly, operation of the Three Plan system made a significant part of the urban sector accustomed to free market prices of industrial goods.¹⁶ The effect of unification of prices was therefore mostly limited to the relatively narrow sphere of SOE interaction among themselves.

With regard to unification of foreign exchange markets, again, the actual impact was less than what the apparent size of devaluation would suggest. One of the reasons was the previously noted wide prevalence of dollars for accounting, exchange, and store of value. Much of the private sector savings was also hedged against the devaluation of Dong by switching to dollar and gold. The devaluation therefore did not have much effect on dollar denominated transactions and on the savers' net worth.

The main sting of the 1989 measures was therefore not in liberalization but in stabilization that took several forms. The first was the reduction of government expenditure on public administration by e.g. restraining the civil servants' wage increase rate below the inflation rate and by demobilizing half a million soldiers. The second was the reduction of public investment programs. As a result of these two steps the government budgetary balance changed from a 34.2 percent deficit in 1989 to 14.5 percent surplus in 1990 and stayed on the surplus side for the subsequent years (Table 5). The third was hardening of the SOE budget constraint. Fourth, positive real interest rates and the «No Questions Asked»-policy regarding deposits enticed savings that could be used to match expanding credit. As a result of these measures inflation started to decrease, falling from about 200 percent in 1988 to 35 percent in 1989. However, inflation rebounded and reached pre-1989 levels of about

¹⁶ Fforde and de Vylder (1996) provide more detail. In particular their Table 4.1 shows how close to «free market prices» the «state staple buying prices» already became by 1988.

70 percent in both 1990 and 1991, making further measures necessary (Brabant 1990, p. 214).

Thus the liberalization measures of 1989 were of limited impact, accommodating what already existed instead of creating a new ground reality. On the other hand, the stabilization measures that had the sting led to an industrial contraction, which Viet Nam could withstand because of the continued buoyancy of the agriculture and service sectors owed to pre-1989 reforms, a buoyancy that also enabled these sectors to absorb the half a million demobilized soldiers. In view of the dependence of 1989 measures on the outcomes of pre-1989 reforms, many internal and perceptive external observers did not attach separate importance to the 1989 measures. For example, Tran, one of the acclaimed internal Viet Nam commentators, hardly mentions 1989 measures in his account of the reform process. Instead, he emphasizes that the achievements of Viet Nam «are the results of a long research and test process, not simple a “leap” in 1989 (Tran 1994, p. 23)». Similarly, Arkadie and Mallon (2000, p. 69), two perceptive external observers, note that «while some commentators focus on the reforms implemented from 1989 onwards, important micro-level reforms were introduced from 1986 that resulted in a strong supply response that greatly improved the environment for the successful implementation of the subsequent macro level reforms».

4.3 What about privatization?

Sachs (1994) recognizes that in the early years of transition, many proponents of *Big Bang* thought of privatization as the *first task*, in particular due to their apprehension that stabilization and liberalization measures would not succeed without privatization being carried out first.¹⁷ This definition of *Big Bang*, according to which the whole process should start with privatization, may be termed as the *original* definition. Subsequently, Sachs presented a *modified* definition, according to which privatization was termed as the third task, a task that was nevertheless to be undertaken *alongside* stabilization and liberalization, the other two tasks. For example, in discussing the Polish *Big Bang*, Sachs clearly mentions that «the third step of the reform process should be privatization (Lipton and Sachs 1990, p. 101)». Similarly, in discussing the Russian *Big Bang*, Sachs repeats the same position, declaring that «the third task is privatization (Lipton and Sachs 1992, p. 229)». Thus privatization remains an integral part of the *Big Bang* package. As Sachs (1994, p. 31) explains, «Shock therapy presupposes that rapid privatization will be initi-

¹⁷ «Before 1989, a common view among reformers in the East was that market stabilization and liberalization in advance of privatization would prove futile: the state-owned enterprises would not adjust to market forces, and would find ways to reassert “soft budget constraints,” thereby undermining stabilization» (Sachs 1994, p. 31).

ated *at the time* of stabilization and liberalization, so that after a few years, the economy will be not only market-oriented, but predominantly privately owned».

Against this backdrop, it is of note that Sachs and Woo's list of *Big Bang* measures taken by Viet Nam in 1989 does not mention privatization at all. At a different place in the paper, however, Sachs and Woo provide the following more general definition of *Big Bang*:

«In our usage, Big Bang reforms include: rapid and comprehensive price and trade liberalization, macroeconomic stabilization, alignment of the official exchange rate to the market rate, ending legal discrimination against all types of non-state enterprises, and an *early commitment to mass privatization* of SOEs, recognizing that actual privatization will take several years in practice» (Sachs and Woo 1997, p. 5, italics added).

This new definition that includes only «early commitment to mass privatization of SOEs,» and leaves out actual privatization from its scope, may be termed as the *re-modified* definition of *Big Bang*. Needless to say, the treatment of privatization in the *re-modified* definition differs quite starkly from its treatment in the previous two definitions, either the *original* or the *modified*.¹⁸

Regardless of the definition used, it is important to note that Viet Nam's 1989 measures do not qualify to be characterized as a *Big Bang*, as they entailed neither an announcement of privatization nor its actual implementation. In fact, among transition countries Viet Nam has proved to be the most reluctant to privatize SOEs, with no commitment to whole scale privatization even to date. The total absence of privatization from the 1989 measures is therefore another reason why their characterization by Sachs and Woo as a *Big Bang* is inappropriate.

4.4 *Doi Moi* of 1986: The real turning point

Viet Nam basically followed the *Gradual* approach to reform. However, if a decisive point in her reform process needs to be identified, the CPV Sixth Congress in 1986 that adopted the *Doi Moi* program can be the best candidate.¹⁹ Even though reforms got under way from the early 1980s, they had a hesitant character. It was still not clear whether the CPV and the government as whole have committed themselves to a switch to the market system, and how far they were ready to go in this

¹⁸ These repeated modifications of *Big Bang*'s definition are instructive, and they seem to be *ex-post* responses to the negative experience of Russian privatization. In fact, it is noteworthy that Sachs now does not want to consider Russia as an example of *Big Bang* reform. (Sachs and Woo 1997, pp. 5–6) Such *ex-post* tailoring of the definition of *Big Bang* however undermines the very integrity of the concept.

¹⁹ Most of the accessible works on Viet Nam are written by outsiders. Even Tran, who worked and wrote in Viet Nam, did not belong to the inner policy circle. There is little to be found written by insiders, the people who were or are engaged in policy formulation. In that sense the inner history of policy development in Viet Nam remains still unknown.

new direction. In fact, Viet Nam witnessed contradictory processes during the initial years of reform.

As the interim period (1976–80) following the 1975 victory and political unification came to an end, Viet Nam drew up its post-unification Second Five Year Plan for 1981–85, which was to lay the foundations for «a more complete socialist transformation,» and to construct «a strict central planning system with allocations of capital and inputs and labor being made centrally». Yet at the same time, the disappointing performance during 1976–80 prompted CPV to initiate a critical reevaluation, as reflected by the discussion of the 1979 (August–September) Sixth Plenum of CC. However, the professed goals of the Second Five Year Plan clearly showed that the CPV as a whole was still not sure about the direction to take. Meanwhile at the field level, instead of further collectivization, as envisaged in the Plan, a process of de-collectivization started; instead of stricter central planning, the dynamics pointed away from the Plan. There was therefore a clear contradiction between the official line, as expressed in Plan documents, and the actual practice (Tran 1994, Fforde and de Vylder 1996 and Arkadie and Mallon 2003).

Describing the factors leading to this contradiction and understanding why practice moved away from theoretical, official thinking is beyond the scope of this paper. However, the following few brief observations can be made. First, Viet Nam could not avoid the inefficiencies resulting from collectivization imposed on a pre-industrial agriculture. Second, Viet Nam could not avoid the inefficiencies arising from an industrial policy that emphasized heavy industry at the expense of light industries, where Viet Nam's comparative advantage lay. Third, efficient management of the state owned enterprises continued to pose problems despite the attempt to overcome them through formation of Unions (of enterprises). Fourth, exodus of the Chinese population following the unification in 1975 and aggressive pursuit of anti-capitalist policies of post-1975 years added to the economic problems. Fifth, military conflicts with Kampuchea and China in 1978 made things worse. Sixth, Viet Nam had to confront the actual and potential decrease in assistance from the COMECON countries. Seventh, Viet Nam could not avoid the impact of the reforms already underway in China since 1978. Eighth, Viet Nam could not avoid the influence of successful market economies of the neighboring East Asian countries.

It was as a result of these influences that the CPV adopted Resolution 100 in January 1981 initiating de-collectivization of agriculture and the Three Plan system for industry even though these went against the professed goals of the SFYP. The hesitant nature of the reform process is reflected further in some policy reversals that took place in 1983 in order to contain «anarchy» in the market. Even the Third Five Year Plan (TFYP), drawn up for 1986–90, emphasized the need to «broaden the collective economy,» to «restrict the negative aspects of the private economic sectors,» and to uphold the leading role of the state sector.

By 1986, however, the CPV was ready for a strategic switch from central planning to the market system. Two sets of circumstances led to this development. The first is the encouraging results from reforms introduced in 1981. The second is the emergence of new problems, in particular the problem of inflation. Faced with inflation, the government had two options. One was to halt the reform process and return to central planning and administered prices. Time and experience had, however, made that route unacceptable. The other option was to accept the market outcome, and make the best use of market mechanisms to solve the problem. The Sixth CPV Congress opted for market reforms by adopting *Doi Moi*. The Sixth CPV Congress was therefore the decisive event in Viet Nam's gradual transition from central planning to market. Fforde and Vylder (1996, pp. 12–16, 144–46) for further details.

4.5 Conclusions regarding characterization

The characterization of Viet Nam's 1989 measures as a *Big Bang* is a mischaracterization that is based on a rather superficial understanding of the Vietnamese reform process. The 1989 measures did not start anything fundamentally new, and were rather a continuation and part of an ongoing wide ranging reform process. It is erroneous to absolutize and counter-pose them to pre-1989 measures. Even the failure of pre-1989 stabilization measures provided valuable learning mechanism for Viet Nam to enact and implement the 1989 reforms. If any pivotal point for the Vietnamese reform process needs to be identified, it should be sought in the 1986 CPV Sixth Congress that adopted the *Doi Moi* program.

5. How acceptable is the hypothesis?

Sachs and Woo's hypothesis may have two interpretations, namely *prospective* and *retrospective*. The prospective interpretation would suggest that China could have higher growth rates post-1989 years if she had adopted similar measures as Viet Nam did in 1989. The retrospective interpretation, on the other hand, would suggest that China would have grown faster in pre-1989 years had she adopted measures similar to Viet Nam's 1989 measures at some point in the past (say, in 1978 or 1984). It is not clear which of the two interpretations Sachs and Woo have in mind. However, to judge the hypothesis in either case we need to examine the concrete *Big Bang* steps that Sachs and Woo would have liked China to take. Their list in this regard include: (a) faster unification of product markets, (b) faster unification of foreign exchange markets, and (c) imposition of harder budget constraint on state enterprises. Let's consider these suggestions in turn.

5.1 Unification of product markets

What could China emulate from Viet Nam's 1989 measures with regard to unification of product markets? To answer this question, we may take a brief look at the Chinese price reform process, described earlier by Byrd (1987)²⁰ followed by discussions by Lau, Qian, and Roland (1997, 2000), Wu and Zhao (1987), Xu (1998), Lin and Cai (1996), and Bramall (2000). The picture that emerges from these accounts is as follows: price reform of the recent period in China started in September 1979, when industries and localities were allowed to vary prices of their products by 20 percent from centrally determined prices. Further, prices of many non-strategic commodities were left completely to «market forces». In January 1985, the pace of price reform was accelerated through the introduction of the Dual Track system, under which enterprises were allowed to charge «market floating prices» (prices that were marginally below market prices) for output that was above the Plan.

The Dual Track system triggered dynamics that propelled the economy toward more market determined outcomes along several channels.²¹ According to Byrd (1987), introduction of the Dual Track system was enough, so far as the incentive role of prices is concerned, as it made only market prices to matter at the margin, making thereby full unification of the two markets unnecessary.²² In Byrd's view, with the introduction of the Dual Track system, the price reform issue for China became a *passé*.²³

In their discussion of unification of product prices in China, Lau, Qian, and Roland (1997, 2000) distinguish two types of market liberalization. The first is the «Limited Market Liberalization (LML),» which they define as the situation when «market resale of plan-allocated goods and market purchases by planned suppliers for fulfilling plan-mandated delivery quotas are not permitted». The second is the «Full Market Liberalization (FML),» which refers to the situation when «market resale and market purchases for redelivery are all allowed by a planned supplier or a rationed user, as long as its obligations under the plan are all fulfilled». Lau, Qian, and Roland consider the Chinese product market liberalization as be-

²⁰ Byrd (1987) begins his analysis with a theoretical treatment of the dual track system and distinguishes between sellers' and buyers' markets. Given that transition economies are generally characterized by shortages, we are generally dealing with sellers market, the conclusions regarding the former is more pertinent. Byrd (1987, pp. 296–298) also notes a more complex origin of the Two Tier system going back to even the Maoist period.

²¹ See Byrd (1987, pp. 299–305) for the details.

²² Byrd (1987, p. 306) observes that «where the two-tier system remains, planning plays a re-distributional rather than allocative role».

²³ As Byrd (1987, p. 307) puts it, «At a fundamental level, the issues of market allocation and to a lesser extent price reform are become *passé*, and they no longer need to be the prime concern for reformers» (Byrd 1987, p. 307).

ing close to FML, as resale, sub-contracting, and purchases for redelivery were not prohibited.

The process of steady unification of product prices in China can be seen from the graph presented in Figure 4. It shows that between 1978 and 1988 the share of sales at market prices in total sales of state enterprises increased from about 12 percent in 1980 to about 70 percent in 1988. Similarly, the share of output sold at market prices in total sales of collective enterprises increased from about 37 percent in 1980 to about 82 percent in 1988. As the mirror opposite, the share of retail sales at state fixed prices over the same period decreased from 97 percent (of total sales) to about 30 percent. This shows that China was quite ahead of Viet Nam in unification of product prices and was not in need of a large correction as was the case with Viet Nam in 1989.

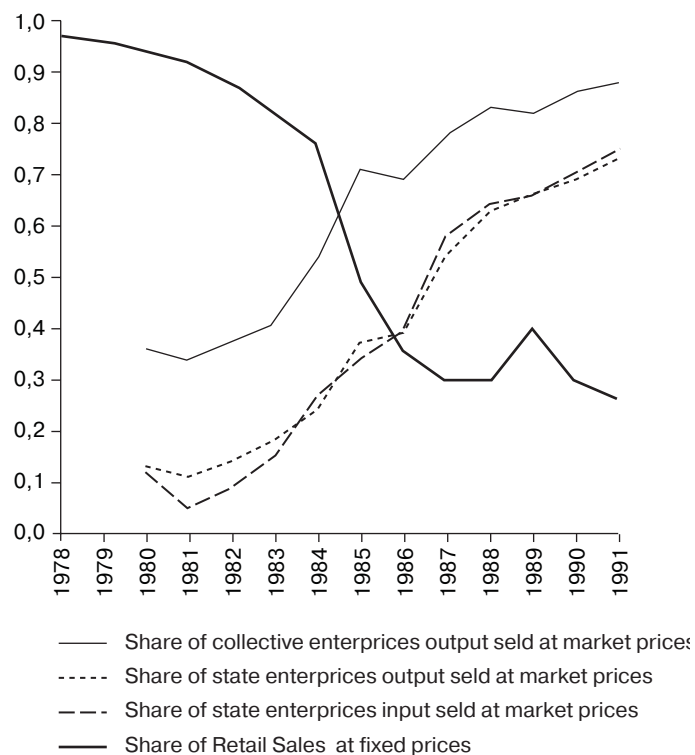


Figure 4: Continuous process of unification of prices in China

Source: Zhou (1992) and Gelb, Jefferson, and Singh (1993).

5.2 Inflation

We saw that it was runaway inflation that triggered Viet Nam's 1989 measures. Was there anything for China to emulate from Viet Nam's 1989 measures with regard to inflation? Ironically, keeping inflation under control was one of the remarkable successes of China, where the general retail price index increased at only 3.94 percent per annum on average during the entire 1978–1987 period (Figure 5 and Table 6). The corresponding rate for CPI was only 4.24 percent.²⁴ This is radically different from what we witnessed in Viet Nam.²⁵

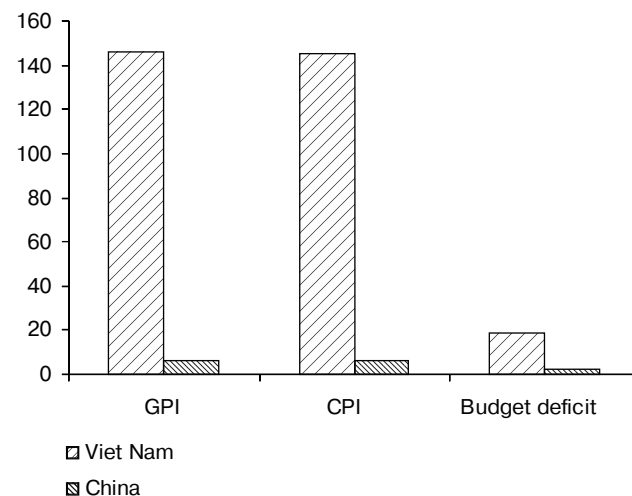


Figure 5: Comparative financial performance of Viet Nam and China during pre-1989 years: Annual average rate of inflation (in percentage) and budget deficit as percentage of revenue during 1981–1988

Thus, in so far as controlling inflation is concerned, Viet Nam had much to learn from China, rather than the other way round. Why China proved so successful in controlling inflation, is a crucial question that we will soon discuss.

5.3 Unification of foreign exchange markets

The foreign exchange markets in China were also integrated rapidly, as Lin and Cai (1996) document. They note that a dual exchange rate system was introduced

²⁴ The averages refer to simple arithmetic averages of annual rates.

²⁵ McKinnon (1994) noticed that China's success at controlling inflation was all the more remarkable in view of China's deteriorating public finances during the period.

in 1981, whereby exporting enterprises could retain a larger proportion of foreign exchange and swap their exchange entitlements with other enterprises through the Bank of China at rates higher than the official rate. In 1985 a «foreign exchange adjustment center» was established in Shenzhen in which enterprises could trade foreign exchanges at negotiated rates. By late 1980s most provinces of China had such centers, through which more than 80 percent of foreign exchange earnings were swapped. Thus de-facto a market exchange rate emerged and prevailed for the larger part of foreign exchange transactions.

The Chinese government was also keen to keep the official exchange rate of Yuan closely aligned with its market value. In order to do so, the authorities continually adjusted the official exchange rate, so that the official value of Yuan decreased steadily from 59 cents in 1978 to 27 cents by 1988 (Table 7 and Figure 6). As a result, China was not in need of a one-time major change in foreign exchange rate of her currency as was the case with Viet Nam in 1989.

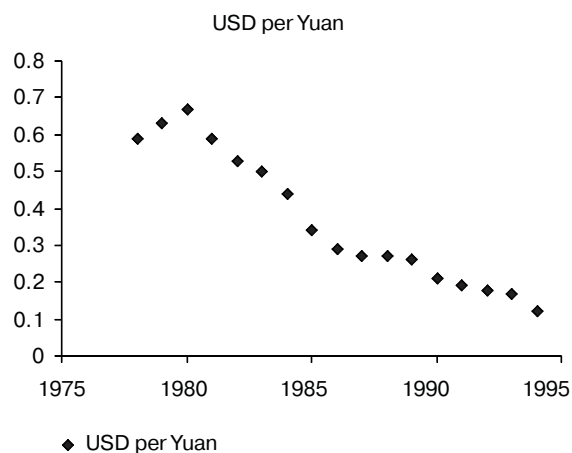


Figure 6: Continuous adjustment of the official exchange rate of Yuan

5.4 Hardening of SOE budget constraints

China was also ahead of Viet Nam in hardening the SOE budget constraint, as is shown by McKinnon (1994, p. 454), who points out that, even though China granted more autonomy to SOEs under the Dual Track system, «state enterprises remained on a tight financial leash». McKinnon shows that China's success in hardening SOE budget constraint early on is a major reason why China could avoid inflation. During reforms, SOEs play an important role in the formation of market prices, as they operate in both the planned and market sectors. Although this was

the case under both the systems, China's Two Track system could control inflation while Viet Nam's Three Plan system could not. The reason for this very different outcome lay in the broader policy environment, in particular, the type of budget constraint under which the systems operated. McKinnon (1994, p. 455) points out that in case of China the state maintained «infra-marginal price control» on, and constrained financial support for, traditional soft budget enterprises. To illustrate, he notes that from the beginning of enterprise reforms, Chinese SOEs were not allowed to bid freely with each other for scarce domestic resources (inputs) or foreign exchange. By contrast, Viet Nam's Three Plan system failed to harden the budget constraints, which thus led to inflation, even though the system provided the right incentives for supply response.

5.5 Positive real interest rates

Unlike Viet Nam, China established and maintained positive real interest rates from the very beginning of the reform process. McKinnon (1994) in fact points to China's positive real interest rates as the most important reason why China could control inflation. He notes that agricultural reforms beginning in 1978 yielded quick results and generated considerable surplus in the hands of millions of rural households. Unlike Viet Nam, where private surplus went underground, China succeeded in drawing this surplus to the formal financial sector by offering positive real interest rates. According to some estimates China could mobilize almost 80 percent of the rural savings through the banking system.

Table 7 shows the marked and steady increase in household savings in China, rising from 5.9 percent of GNP in 1978 to 27.1 percent in 1987. It also shows that much of this saving was actually deposited in the banking system.²⁶ Table 8 shows why bank deposits increased in China during the reform years: the real interest rate for most of the years during 1980–1987 was positive, averaging 1.69 percent (on household one-year time deposit). In the initial years of reform, the rate was much higher, averaging to 2.70 percent during 1980–1984. The keen appreciation by Chinese authorities of the role of positive real interest rates was further displayed by their behavior during the crisis years of 1988–1989, when some rates were fully indexed to ensure positive real interest rate despite the high inflation. When inflation came down to very low levels in 1990–1991, indexing was discontinued (McKinnon 1994, pp. 452–453).

²⁶ Total household deposits with the banking system grew by an average (simple arithmetic) rate of 33.65 percent per year during 1979–1988. This rate was faster for rural households (35.62 percent) than for urban households (32.99 percent). The corresponding rates were 41.96 percent and 29.98 during 1979–1984, showing that rural households were building up bank balances at a much faster rate than their urban counterparts during the initial years of reform.

The Chinese authorities also displayed considerable prudence in the use of deposits mobilized through positive real interest rates. The non-state sector as a whole (including rural and urban households, TVEs, and agriculture) accounted for only about 20 percent of overall bank lending, with TVEs accounting for only 6 to 7 percent (Table 9).²⁷ This shows that TVEs were financed mainly out of local governments' budget. To the extent that local governments are not allowed to run deficits, TVE financing was therefore by and large non-inflationary.

The upshot is that by mobilizing household savings through offering positive real interest rates and by not using them for TVEs, the government of China could use the bulk of it for non-inflationary financing of its budget deficit, investment program, and for meeting SOE credit needs.²⁸ In contrast, Viet Nam realized the importance of positive real interest rates belatedly and tried to attain such rates through its 1989 measures.

5.6 Any room for faster growth?

The above discussion shows that there was not much for China to emulate from Viet Nam's 1989 measures to bolster her future growth rate, negating thereby the *prospective* interpretation of the Sachs and Woo hypothesis.

What about the *retrospective* interpretation? To answer this question, we first note that even pre-1989 growth rates of China were higher than post-1989 growth rates of Viet Nam. While the average annual GDP growth rate for Viet Nam during 1989-1999 was 7.1 percent, the same for China during 1978-1988 and 1984-1988 periods was 9.6 and 10.7 percent, respectively. China's post-1989 growth rate (9.5 percent per annum for 1989-1998) is also higher than Viet Nam's post-1989 growth rate (NBS 1999, p. 4 and Table 10). As a result of higher growth rates, China's per capita income (\$1,225) in 2004 was more than double of Viet Nam's (\$514), and according to MekongCapital's computation, at Viet Nam's current growth rate of 7.1 percent (on average between 2000 and 2004), she will take more than 12 years just to catch up with China's 2004 per capita income level (see http://www.mekongcapital.com/mr_gdp.htm).

Second, China's record of nearly 10 percent annual average GDP growth for three decades is unparalleled from both historical and international perspectives. As Kojima (2006) points out, Japan's high post war economic growth lasted 18

²⁷ The Table further shows that a considerable part of savings deposited with Rural Credit Cooperatives (RCCs) was mobilized for purposes other than those in the rural sector. The RCC loans-to-deposit ratio rose from 22.0 percent in 1979 to 64.9 percent in 1988. Also, the share of TVEs in total RCC lending increased from 29.89 percent in 1979 to 50.20 percent in 1988. Thus in most years TVEs got less than half of the limited amount of credit that RCC provided for rural purposes.

²⁸ Another benefit of positive real interest rates and consequent high lending rates was that they forced the borrowing to be directed to more productive investments. See MacKinnon (1994, pp. 461-462)

years with an average annual growth rate of 9.3 percent. For Taiwan and Korea, the high economic growth phase lasted longer, about forty years, but the rate averaged to 8.3 and 8.6 percent per year, respectively. Given this record, it is difficult to see how China could have grown any faster than she already did. Most observers rather worry about China's too high growth rates and recommend that growth rather be slowed down. The Sachs and Woo recommendation for China to boost her growth rate by emulating Viet Nam's 1989 reforms seems completely misplaced.

5.7 Conclusions regarding the hypothesis

Thus, the Sachs and Woo hypothesis that China would have grown faster had she followed Viet Nam's 1989 measures is not tenable either in a prospective or in a retrospective sense. By 1989 China had already reached the stage of reform Viet Nam aimed at reaching through its 1989 steps, and hence there was not much scope for China to increase her post-1989 growth rates by emulating those steps. On the other hand, China's unprecedented high growth rates from the very beginning of her reform makes untenable the hypothesis that she could have enjoyed higher pre-1989 growth rates by adopting earlier measures like the ones Viet Nam took in 1989.

6. Why the pitfalls?

The question that naturally arises is why Sachs and Woo run into the pitfalls regarding facts and characterization and offer an untenable hypothesis. We will see that the answer lies in their *subjective* preference for the *Big Bang* approach to reform. However, to show that we first demonstrate very briefly that Sachs and Woo run into pitfalls regarding facts and characterization regarding not only Viet Nam, but China too.

6.1 Pitfalls regarding China and contradictions in the broader conclusions

Sachs and Woo papers are intended to reach some broader conclusions regarding reform processes in general, as listed below (Sachs and Woo 2000, pp. 4-5):

«(H.1) China's rapid growth has come *despite gradualism*, in areas of the economy characterized by radical rather than gradual reforms. China's ability to grow rapidly despite gradual reforms reflects China's particular structure;

(H.2) China's gradualist strategy is not transferable to Eastern Europe and the former Soviet Union (hereafter EEFSU), because of fundamental differences in economic structure;

(H.3) China's experiments in non-capitalist institutions are proving to be un-

successful in (a) agriculture; (b) rural industry; (c) state industry, and are therefore in need of further reform toward *more typical capitalist* institutions;

(H.4) China is gradually harmonizing its economic institutions with those of East Asian market economies». ²⁹

It may be noticed that there are several contradictions in the set of conclusions above. The first is the contradiction between the *universalist* and *particularist* positions. The position that even China would have done better had she followed *Big Bang* instead of the *Gradual* approach may be termed as the *universalist* position, because it suggests that the superiority of the *Big Bang* approach is universal, no matter where the country is located and what the structure of its economy is (whether labor surplus agrarian or full-employment industrial). It is this *universalist* position that finds reflection in conclusion (H.1). However, this position contradicts the *particularist* position implied by conclusion (H.2), according to which a particular reform approach is suitable for a particular country, depending on its economic structure and other conditions.

Sachs and Woo do not see the contradiction, because according to their reconciliation of the two positions, China's success following the *Gradual* approach was limited and would have been much greater had she followed the *Big Bang* approach. However, we already observed that from both historical and international perspectives, the proposition of a growth rate higher than what China already achieved is not realistic, and hence the above reconciliation is not tenable.

The second contradiction lies in the presentation of China by Sachs and Woo as an example of both *Gradualism* and *Big Bang*. In (H.2) China is presented as a case of *Gradualism*. Yet in (H.1) China's success is attributed to 'radical' rather than 'gradual' reforms, claiming that China's growth was *despite* gradualism. ³⁰ The suggestion here is that even China had its *Big Bangs*, just as Viet Nam had one in 1989, and that it is to those *Big Bangs* that China owes its growth. The question that arises is: What are China's *Big Bangs*?

Sachs and Woo (2000, p. 10) cite three examples. These are: (a) switch from collectivist to household farming, (b) liberalization of TVEs, and (c) opening to the external world. A detailed perusal of these examples is beyond the scope of this paper. However, it may be noted briefly that the portrayal of these steps as examples of *Big Bang* type measures is erroneous. First, China's record of opening up, beginning with a few special economic zones and then gradually increasing the number

²⁹ The allusion to Viet Nam pertains directly to (H.1). However, it is not difficult to see that the conclusions listed above are interrelated. Thus, (H.1) helps to reach (H.2) and (H.3), and to some extent (H.4) too. Hence the allusion to Viet Nam serves as an important link in Sachs and Woo's causality chain.

³⁰ As Sachs and Woo make it clear elsewhere in the paper, «Favorable outcomes have emerged (in China) *not because of gradualism, but despite gradualism*». (Sachs and Woo 2000, p. 3, italics added)

and scope of such special zones, is rather a classic example of proceeding gradually than that of opening up the entire economy at one stroke, as the *Big Bang* approach would suggest. Second, it is unclear what Sachs and Woo mean by 'liberalization of TVEs.' Generally TVEs have been regarded as another classic example of China's *Gradual* approach, of experimentation with intermediate institutional forms, rather than jumping directly from state ownership to outright private ownership. TVEs are an epitome of the *Gradual* approach from two other viewpoints, namely (i) spatial character of industrialization and (ii) mobility of labor. TVEs allowed China not to jump directly to industrialization concentrated in a few urban centers (as can be seen in many other developing countries) and not to jump directly from the restricted labor mobility situation (characterized by the Chinese household registration system, *Hukuo*) to a situation of entirely unrestricted mobility. As is known, TVEs were associated with the slogan: «Leave agriculture, not the village!» Characterization of TVEs as a *Big Bang* type of measure therefore does not conform to the reality. If on the other hand, by «liberalization of TVEs» Sachs and Woo are referring to subsequent privatization of TVEs, then it should be mentioned that this privatization has been a protracted process, a process that is yet to be fully completed. Third, even the switch from collectivist to household farming did not happen as fast as Sachs and Woo present. As Bramall (2000) documents, this switch also took a long time with leads and reversals. Thus it is difficult to agree with the portrayal of any of these three reforms as *Big Bang*.

However, suppose we agree with the Sachs and Woo portrayal. We are then faced with the following thorny conceptual problem. According to their conclusion (H.2), China overall is an example of the *Gradual* approach. That being the case, we have a situation where *Big Bangs* themselves are part of the *Gradual* approach. This makes the already controversial definition of *Big Bang* further problematic.

There is therefore a similarity between Sachs and Woo ways of viewing the reform processes in Viet Nam and China. Just as they ignore the role of pre-1989 reforms and try to ascribe all success to 1989 measures in Viet Nam, so in the case of China they try to attribute all success to certain apparently 'radical' measures and try to disparage and discount gradual changes. In their penchant to find successful *Big Bangs*, they try to see success and *Big Bang* where these do not exist, and in their desire to discredit the *Gradual* approach they try to see failure and departure from *Gradualism* where these are not the case. Sachs and Woo thus have a *subjective* preference for the *Big Bang* approach, and in order to promote this subjective view, they do not hesitate to sacrifice objectivity.

There may be several sources of the Sachs and Woo subjectivity. One of these is epistemological, which in this case lies in these authors' lack of appreciation of the dialectics of the reform process. This lacking finds expression in several features of Sachs and Woo's analysis, such as (i) non-recognition of the time specificity of reform measures and their propensity toward comparative statics when the essence

lies in the dynamics, (ii) limited view of the interaction of politics and economics in the reform process, and (iii) mechanistic, linear reasoning.

6.2 Non-recognition of time-specificity of reform measures

Sachs and Woo fail to recognize reform measures' time specificity, whereby a reform measure can become redundant tomorrow without losing its necessity today. In fact, its very success today may be the reason for its redundancy tomorrow.

Sachs and Woo conclusion (H.3) above displays their tendency to discount the role of intermediate institutions that arose in China in the process of reform just because these institutions are now in need of change and are undergoing change. TVEs are a good example to illustrate the point. It is well known that TVEs played and are playing a historic role in China's industrialization. From almost nothing TVEs exploded to account for about one-third of Chinese industrial production. The phenomenal growth of TVEs has been one of the major driving forces behind China's growth of GDP and exports. A confluence of factors led to the emergence of TVEs as a unique, non-capitalist institution, which finds hardly any match elsewhere in the world. Among these factors are: (i) the introduction of successful agricultural reform resulting in a significant surplus in the hands of rural households, (ii) the introduction of industrial reforms in the form of the Two-Track policy resulting in out-of-plan market for both industrial input and output, (iii) the Maoist legacy of decentralization and delegation of economic decision making to the commune/township level, (iv) the Maoist legacy of rural industrialization carried out by communes as part of the Great Leap Forward campaign, (v) the introduction of fiscal reform, pushing Chinese local governments to rely increasingly on local enterprises as sources of revenue, and (vi) the inflow of overseas Chinese and foreign capital as a result of the adoption of the open-door policy.

With time however circumstances changed, and the unique, non-capitalist ownership of TVEs proved no longer indispensable and/or suitable. There are many reasons for this outcome, some of which are as follows: (i) TVEs themselves promoted internal migration, which in turn created a divergence between the territorial community and the legal community of townships, causing thereby an incongruity between the collective ownership by the legal community and the actuality of the territorial community. (ii) Industrial reforms in cities and phenomenal growth of economic activities in the special economic zones led to the de-facto and legal acceptance of private entrepreneurship and private ownership. (iii) Economic reforms led to the creation of wealth and to the emergence of people with requisite capital and management skills to take over TVEs under private ownership. (iv) Fiscal and economic management reforms pushed local governments to generate funds through privatization of TVEs in order to finance public recurrent expenditure and

investment projects and to concentrate on the management of bigger enterprises under their control.

However, subsequent privatization of TVEs under the impact of the factors above does not mean that China was mistaken to attempt a «non-capitalist» rural industrialization during 1980s and early 1990s, or that the alternative of trying to foster private capitalist industrialization right from 1984 would have produced better results. Yet by arguing for a *Big Bang* in China, this is precisely the type of suggestion that Sachs and Woo make. Their unwillingness to recognize the time-specificity of reform measures can also be illustrated by considering other examples, such as the Household Responsibility System (of agriculture), the Dual Track System (of industry), Special Economic Zones (of foreign trade and investment), and the more recent use of Non-tradable shares (in equitization of SOEs), etc. All of these intermediate forms have their historic necessity and positive role even though with time they may or might have become redundant. The same applies to Viet Nam. The Contract System of agriculture, the Three Plan system of the industry, the Preferred Stocks in equitization, etc. may all in time lose their rationale. However that does not mean that they were not appropriate and did not have a positive role at the time they were introduced.³¹

6.3 Limited view of the interaction between economics and politics

The epistemological weakness of the Sachs and Woo position finds another reflection in their somewhat limited view of the interaction between economics and politics in the reform process. For example, Sachs and Woo argue repeatedly that the *Gradual* approach of China owes more to political considerations than to the economic rationale.³² This view is problematic on two grounds. First, it is questionable *prima facie*. Consider the example of TVEs again: when the TVE movement began, there were hardly enough individuals in the Chinese countryside (for that matter even in most urban areas) with the kind of capital and capability necessary

³¹ Sachs and some other researchers (e.g. Murphy, Shleifer, and Vishny 1992) have pointed out that the *Gradual* approach gives rise to new problems. This is perfectly natural and expected and is actually how things progress. Resolution of one contradiction leads to the generation of new contradictions, and so forth. So emergence of new problems cannot be an argument against the *Gradual* approach. The issue is whether the new contradictions are resolved at an appropriate time. Otherwise, they may create a crisis. So far it seems that both China and Viet Nam have been more or less successful at deciphering new contradictions and resolving them in time.

³² For example, Sachs and Woo (2000, p. 1) observe that «the convergence school also holds that China's gradualism results primarily from a lack of consensus over the proper course, with power still divided between market reformers and old-style socialists; and that the "innovative" non-capitalist institutions are responses to China's political circumstances and not to its economic circumstances». They make the same point elsewhere stating that «Gradualism ... has not been a strategy so much as a result of continuing political conflict and other difficulties inherent in setting a policy course in a country of some 1.2 billion people» (Sachs and Woo 2000, p. 3).

to set up TVEs. One can argue that government could direct bank credit to create such *nouveau* capitalists from scratch. This argument has its own problems. First, we saw earlier that bank credit was not the main source of financing TVEs, which were instead financed mainly by local governments' own revenues. It is difficult to suggest that local governments should have handed over its revenues to individuals to set up enterprises under private ownership. The second problem concerns how banks or local governments would choose such persons. Neoclassical economics discourages governments from making such choices and advocates the choice to be left to impersonal market forces. Thus creation of *nouveau* capitalists from zero was not a feasible option for China on *economic* grounds.

Second, the option of hatching TVEs under private ownership from the very beginning was not feasible on *political* grounds too. The society was still steeped in the ideology and practice of «socialism,» as manifested in the principle of «Eating from the Same Iron Bowl». In such a social context, any attempt to foster *nouveau* capitalists, even if successful in its immediate sense, would create social resentment, undercutting these capitalists' legitimacy and hampering their ability to function properly. Quite instructive in this regard is the experience of Russia, where a class of capitalists has emerged by «grabbing» state assets. To this day, this class finds it difficult to gain social legitimacy and hence remains vulnerable to populist pressures as well as revivalist attempts to retake those assets. Consequently, Russia still has not been able to establish a well functioning market economy.

Thus the contraposition of political grounds to economic grounds is a false contraposition. The economics and politics of a situation are usually intertwined as an organic whole, so that it is difficult to separate the two. Reforms never happen in a political vacuum; rather political parameters are as much a part of the landscape as are economic ones, the two of which are related. It is unreasonable to claim that policy advice was correct but did not prove successful as the political situation was not right. The reform policy needs to be formulated keeping both the political and economic conditions, and in particular their interrelationship, in mind.

6.4 Mechanistic, linear reasoning

Another reflection of the epistemological weakness of Sachs and Woo position can be seen in their often very mechanistic, linear reasoning. An example is provided by their claim that «since reforms unleashed growth, even more reform would have unleashed faster growth» (Sachs and Woo 2000, p. 13)³³. This is obviously a very mechanistic, linear projection.³⁴ The reality is usually far more complex, or-

³³ Similarly they argue elsewhere that «the faster the convergence, the better will be the outcome» (Sachs and Woo 2000, p. 2).

³⁴ Some may say that this is like arguing for binge drinking because some studies have found that moderate drinking leads to less cardiac problems.

ganic, non-linear, and full of breaks, feedbacks, turnarounds, and unintended consequences.

We have already noticed that China's historically and internationally unprecedented high growth rates makes redundant Sachs and Woo claim that more reforms are required to grow faster. What is important to note is that it is rather lack of reform (in Sachs and Woo sense) that may sometimes generate faster growth than the other way round! An example may be seen in the Chinese experience with liberalization of interest rates. According to Lin and Cai (1996), the main sluggishness in China's unification of markets concerns the interest rate. Referring to the situation in 1984, they explain that maintaining the interest rate at artificially low levels led to higher demand for credits. Previously, excessive demand used to be curtailed by administrative means. However delegation of credit approval authority to banks made such rationing difficult, leading to a «rapid expansion of credit and an investment thrust,» leading to very high growth rates.³⁵ We thus see an example where less reform (i.e. less liberalization of interest rates) ended up causing faster growth, illustrating the pitfalls of linear reasoning.

The mechanistic reasoning of Sachs and Woo also finds reflection in their conclusion (H.4), whereby they suggest that China (and for that matter Viet Nam) have no necessity to experiment with institutions, because the ultimate forms of capitalist institutions are known.³⁶ This is again quite simplistic. First of all, neither China nor Viet Nam have yet declared capitalism as their end-goal, and both governments are characterizing their reforms as rather ways to construct better variants of socialism. Hence, the entire argument that institutional forms of capitalism are known and that no experimentation is necessary may be unwarranted. Second, even if both China and Viet Nam were in fact headed toward capitalism, the fact remains that institutional forms of capitalism can be quite varied. Even after several centuries, institutions of developed capitalism vary, as can be seen in the differences in (i) the relative role of the public vs. private sectors of the economy, (ii) the role of banks vs. stock markets in financing companies, (iii) the role of labor institutions in the bargaining between labor and capital, (iv) social safety network, etc. Only through a gradual process of change, experimentation, trial and error, and evolution, can a country attain the configuration of institutions that are best suited for it, based on its economy, history, culture, physical characteristics, etc. Also, it may not be only an issue of adjusting institutional forms that are already available else-

³⁵ «Maintaining the interest rate at an artificially low level gave enterprises an incentive to obtain more credits than the supply permitted. Before the reforms, the excess demands for credit were suppressed by restrictive central rationing. The delegation of the credit approval authority to local banks in the autumn of 1984 resulted in a rapid expansion of credits and an investment thrust» (Lin and Cai 1996, p. 208).

³⁶ As they put it, «The key point is that little experimentation is needed or desired. The long-run goals of institutional change are clear, and are found in the economic models of existing market-based economies» (Sachs and Woo 2000, p. 8).

where. There is also the possibility of new institutional forms to arise. As North (1990) emphasizes, institutions cannot just be supplanted from the outside; they must be home grown (even if the seeds and samplings are brought from outside); and growth is a gradual process.

7. Concluding remarks

The analysis of this paper shows that the Sachs and Woo hypothesis alluding to Viet Nam's 1989 reforms that China would have grown faster had she adopted a *Big Bang* approach rather than the *Gradual* approach to reform is flawed. The allusion to Viet Nam suffers from inaccuracy of facts and inappropriate characterization, and the hypothesis itself is untenable in its both prospective and retrospective interpretations.

The Sachs and Woo papers contain a wealth of information and help greatly in understanding China's reform process. However, their analysis suffers from weaknesses which emanate from their subjective preference for the *Big Bang* approach. It is this subjectivity that leads them to pitfalls regarding facts, interpretation, and the overall hypothesis. The epistemological source of the subjectivity lies in the authors' lack of appreciation of the dialectics of the reform process. This lacking finds reflection in their reluctance to see the time-specificity of various reform measures and the complex interaction between politics and economics in the reform process and in their mechanistic reasoning. The discussion of other possible sources of Sachs and Woo subjectivity remains beyond scope of this paper.

Recognition of the subjectivity of the Sachs and Woo position is important, because their views, particularly those of Sachs, carry a considerable weight in academic and policy circles. Sachs had a profound impact on the course of the Russian reform, and he continues to exert considerable influence on issues concerning transition and development. The subjectivity of his position, as revealed in this paper, suggests that Sachs' views on reform and transition may warrant more scrutiny than they have received so far.

Table 1: Impact of pre-1989 reforms on Vietnamese agricultural production (Growth rates in percentage)

Year	Gross Agricultural Production: Annual growth rate (%) (Tran 1994, p. 114–6)	Gross Agricultural Production from cultivation: Annual growth rate (%) (Tran 1994, p. 114–6)	Gross Agricultural Production from Livestock: Annual growth rate (%) (Tran 1994, p. 114–6)	Production of food crops in rice equivalent: Annual growth rate (%) (Tran 1994, p. 114–6)	Yield of food crops in rice equivalent: Annual growth rate (%) (Tran 1994, p. 114–6)	Paddy production growth rate (%) (Minot and Goletti 2000, p. 44)	Population growth rate (%) (Minot and Goletti 2000, p. 44)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1976						11.7	3.3
1977	-5.6	-8.9	8.7	-6.3	-12.4	-10.7	2.4
1978	-1.8	-0.7	-6.0	-2.8	-4.7	-7.9	2.0
1979	8.7	9.5	5.4	14.0	11.6	15.1	2.1
1980	7.5	6.6	11.1	3.0	1.0	1.7	2.3
1981	4.4	1.5	15.3	4.2	5.4	6.7	2.2
1982	11.3	12.3	8.1	12.2	12.6	15.0	2.3
1983	3.3	1.3	10.3	0.9	3.7	2.1	2.1
1984	5.3	5.5	4.4	4.8	4.0	5.3	2.2
1985	2.5	2.8	1.5	2.3	1.9	2.6	2.0
1986	4.8	3.0	10.6	1.0	1.5	0.6	2.0
1987	0.4	-2.4	9.1	-4.4	-3.0	-5.8	2.3
1988	4.3	7.5	-4.8	11.5	7.3	11.9	1.9
1989	7.4	7.8	6.3	9.9	7.8	11.1	1.7
1990	1.6	1.0	3.2	-0.1	-0.3	1.0	2.1
1991	1.1	0.6	3.0	2.3	-2.3	2.0	2.4
1976–80	2.0	1.4	4.5	1.7	-1.5	-0.4	3.0
1981–85	5.4	5.3	5.8	4.8	5.3	6.0	2.1
1981–88	4.4	4.1	5.3	3.8	3.8	4.5	2.1

Source: Columns (2) through (6) are also based on GSOa (2000, pp. 77–78), GSOB (2000, p. 178, p. 190, and p. 201). The growth rates for 1976–80, 1981–85, and 1981–88 are compound annual averages of respective periods.

Table 2: Impact of pre-1989 reforms on Vietnamese agricultural exports

	Population in millions (Minot and Goletti 2000, p. 44)	Paddy production in million metric tons (Minot and Goletti 2000, p. 44)	Rice production per capita in kilograms (Minot and Goletti 2000, p. 44)	Viet Nam's net exports of rice in million metric tons (Minot and Goletti 2000, p. 44)	Apparent rice consumption in kilograms per capita (Minot and Goletti 2000, p. 44)	Vietnam's export of coffee (,000 tons) GSO 2000b, p. 11	Vietnam's export of peanuts (,000 tons) GSO 2000b, p. 11	Vietnam's production of Crude oil (million tons) GSO 2000, p. 315
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1975		10.5	144	-0.3	130			
1976	49.2	11.8	156	-0.1	137	8.5	1.5	
1977	50.4	10.6	137	-0.2	121	2.1	1.0	
1978	51.4	9.8	124	-0.1	107	3.5	0.1	
1979	52.5	11.4	141	-0.1	122	2.8	0.7	
1980	53.7	11.6	141	-0.2	124	4.0	0.5	
1981	54.9	12.4	147	0	126	2.7	1.1	
1982	56.2	14.4	167	-0.2	146	4.2	4.3	
1983	57.4	14.7	167	0	143	4.6	16.2	
1984	58.7	15.5	172	-0.2	151	3.9	17.9	
1985	59.9	15.9	172	-0.3	152	9.2	24.8	
1986	61.1	16.0	170	-0.4	151	24.0	43.2	
1987	62.5	15.1	157	-0.2	138	25.6	56.3	0.3
1988	63.7	17.0	173	-0.1	150	33.5	71.3	0.7
1989	64.8	19.0	191	1.4	142	57.4	38.5	1.5
1990	66.2	19.2	189	1.6	137	89.6	70.7	2.7
1991	67.8	19.6	188	1.0	146	93.5	78.9	4.0

Table 3: Impact of pre-1989 reforms on the performance of Vietnamese Industry (Growth rates in percentages)

	Growth rate of Industrial production (Total) (%)	Growth rate of Industrial production (Central) (%)	Growth rate of Industrial production (Local) (%)	Growth rate of Industrial production (State) (%)	Growth rate of Industrial production (Non-state) (%)	Share of local enterprises in total Industry Output (%)	Share of non-state enterprises in total industry output (%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1976						55.9	31.4
1977	10.8	16.4	6.4	11.8	8.7	53.6	30.8
1978	8.2	2.8	12.7	5.8	13.4	55.9	32.3
1979	-4.7	-14.5	2.9	-10.4	7.0	60.4	36.3
1980	-10.3	-17.2	-5.7	-15.2	-1.6	63.5	39.8
1981	1.0	2.4	0.2	-1.0	4.0	63.0	41.0
1982	8.7	4.7	11.0	4.0	15.5	64.4	43.6
1983	13.0	11.2	14.1	11.6	14.9	64.9	44.3
1984	13.2	12.0	13.8	14.3	11.8	65.3	43.8
1985	9.9	7.6	11.1	10.0	9.7	66.0	43.7
1986	6.2	5.6	6.5	6.2	6.2	66.2	43.7
1987	10.0	6.8	11.6	9.3	10.9	67.2	44.1
1988	14.3	12.3	15.3	15.5	12.9	67.8	43.5
1989	-3.3	5.9	-7.6	-2.5	-4.3	64.7	43.0
1990	3.1	15.3	-3.5	6.1	-0.7	60.6	41.4
1991	10.4	15.5	6.1	11.8	7.4		
1976-80	0.6	-4.2	3.8	-2.7	6.5		
1981-85	10.6	8.5	11.8	9.6	12.2		
1981-88	10.2	8.2	11.2	9.4	11.0		

Source: Tran 1994, p. 149.

Notes: Non state includes enterprises under cooperative and private ownership. The growth rates for 1976-80, 1981-85, and 1981-88 are compound annual averages of respective periods.

Table 4: Overall impact of pre-1989 reforms on Viet Nam's GDP

	GDP in 1994 prices Total Nguyen et al. 2002 pp. 267–8 GSO 2000 p. 29 Billion dong	GDP growth rate (Nguyen et al. 2002 pp. 267–8 GSO 2000 p. 27–29)	GDP in 1994 prices Service Nguyen et al. 2002 pp. 267–8 GSO 2000 p. 29 Billion dong	Service sector GDP growth rate (Nguyen et al. 2002 pp. 267–8 GSO 2000 p. 29)	Economic Growth Rate in State sector (GSO 2000 p. 27)	Economic Growth rate Non- state Previous Year = 100 GSO 2000 p. 27
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1976	76376					
1977	79202	5.3			6.4	4.6
1978	79757	1.1			2.1	3.0
1979	80235	-1.8			1.6	-3.6
1980	77908	-3.6			-16.9	4.0
1981	80635	2.3			1.6	2.6
1982	87166	8.8			2.3	10.8
1983	92832	7.2			2.0	8.6
1984	100166	8.3			18.8	5.6
1985	106176	5.7	42948		14.8	3.0
1986	109189	2.8	41973	-2.3	1.7	3.7
1987	113154	3.6	43893	4.6	5.7	2.1
1988	119960	6.0	47744	8.8	7.6	4.8
1989	125571	4.7	51497	7.9	-1.8	9.8
1990	131968	5.1	56744	10.2	-3.5	11.2
1991	139634	5.8	60934	7.4	6.6	5.3
1976–80		0.5			-2.8	2.0
1981–85		6.9			7.9	6.1
1981–88		5.7			6.8	5.2

Note: The growth rates for 1976–80, 1981–85, and 1981–88 presented in column (3) are compound annual average for respective periods. However, analogous growth rates presented in columns (6) and (7) and simple arithmetic averages of annual growth rates for respective periods.

Table 5: Inflation in Viet Nam and its sources

	General price index Previous year = 100 Tran 1994, p.179 GSO 2000 p. 378	Other consumer price index, previous year = 100, Tran 1994, p. 179 GSO 2000 p. 378	Deficit as % of revenue Tran 1994, p. 101	Revenue from foreign countries as % of state budget revenue Tran 1994, p. 102	Credit on working capital Total (end of year) Million Dong Tran 1994, p. 108	Credit on working capital State (end of year) Million Dong Tran 1994, p. 108	Credit on working capital Cooperative (end of year) Million Dong Tran 1994, p. 108	Credit on working Capital (private and other (end of year) Million Dong Tran 1994, p. 108
(1)	(2)	(4)	(6)	(7)	(8)	(9)	(10)	(11)
1976	121.9	109.6	-2.6	44.8	4649	4146	408	94
1977	118.6	108.6	-1.5	34.5	5664	5034	532	97
1978	120.9	104.4	-2.8	32.0	6030	5339	596	94
1979	119.4	116.0	-4.6	40.7	6193	5460	637	95
1980	125.2	117.8	-1.0	38.9	8302	7590	609	103
1981	169.6	195.1	-18.1	22.5	36013	35737	101	174
1982	195.4	205.4	-8.1	28.8	45322	43126	1950	246
1983	149.5	138.8	-3.9	21.6	62970	59721	2924	325
1984	164.9	179.9	-3.6	13.7	96286	90504	5436	346
1985	191.6	190.8	-36.6	25.1	36166	34404	1727	35
1986	487.3	492.7	-23.4	14.6	111622	102162	8641	819
1987	301.3	289.3	-20.9	10.2	400252	360173	30098	9981
1988	308.2	265.0	-33.6	17.3	1718697	1480114	255545	43650
1989	134.7	118.8	-34.2	21.6	3229083	2787012	268158	173913
1990	167.5	155.8	14.5	22.9	4210000	3736000	474000	
1991	167.6	170.6	13.8	5.0	7993000	7226000	767000	

Table 6: GDP growth rate, inflation, and exchange rate in China under Reform

Year	Growth rate (%) of GDP (cf. NBS 1999, p. 3)	Growth rate (%) of general retail price index (NBS 1999, p. 21)	Growth rate (%) of consumer price index (CPI) (NBS 1999, p. 21)	Government budget balance as % of government revenue	Government budget balance as % of GDP	USD per Yuan (Bramall 2000, p.381)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1976	-1.6	0.3	0.3	-3.8	-1.0	
1977	7.6	2.0	2.7	3.5	1.0	
1978	11.7	0.7	0.7	0.9	0.3	0.59
1979	7.6	2.0	1.9	-11.8	-3.4	0.63
1980	7.8	6.0	7.5	-5.9	-1.5	0.67
1981	5.2	2.4	2.5	3.2	0.8	0.59
1982	9.1	1.9	2.0	-1.5	-0.3	0.53
1983	10.9	1.5	2.0	-3.1	-0.7	0.50
1984	15.2	2.8	2.7	-3.5	-0.8	0.44
1985	13.5	8.8	9.3	0.03	0.0	0.34
1986	8.8	6.0	6.5	-3.91	-0.8	0.29
1987	11.6	7.3	7.3	-2.9	-0.5	0.27
1988	11.3	18.5	18.8	-5.7	-0.9	0.27
1989	4.1	17.8	18.0	-6.0	-0.9	0.26
1990	3.8	2.1	3.1	-5.0	-0.8	0.21
1991	9.2	2.9	3.4	-7.5	-1.1	0.19
1992	14.2	5.4	6.4	-7.4	-1.0	0.18
1993	13.5	13.2	14.7	-6.8	-0.9	0.17
1994	12.6	21.7	24.1	-11.0	-1.2	0.12
1995	10.5	14.8	17.1	-9.3	-1.0	0.12
1996	9.6	06.1	8.3	-7.2	-0.8	0.12
1997	8.8	0.8	2.8	-6.7	-0.8	
1998	7.8	-2.6	-0.8	-9.3	-1.2	

Table 7: Deposits and loans in the Chinese banking system
(Growth rates and shares)

Year	Growth rate (%) in total household deposit with state banks (McKinnon 1994, p. 448)	Growth rate (%) in urban household deposit with state banks (McKinnon 1994, p. 448)	Growth rate (%) in rural household deposit with state banks (McKinnon 1994, p. 448)	Growth rate of M0 (%) (Bramall 2000, p. 305)	Growth rate of M2 (%) (Bramall 2000, p. 305)	Growth rate (%) in total deposit with state banks (cf. NBS 1999, p. 64)	Growth rate of loans provided by state banking system in billion USD (cf. NBS 1999, p. 66)	Household savings as percentage of GNP (McKinnon 1994, p. 449)
1976								
1977						8.7	7.9	
1978						6.7	11.2	5.9
1979	33.4	30.8	40.8	26	27	18.0	10.3	7.1
1980	42.2	39.4	49.2	29	27	24.1	18.4	8.9
1981	31.1	25.4	45.0	15	23	22.0	18.5	11.0
1982	29.0	26.3	34.5	11	19	16.9	11.2	13.0
1983	32.1	28.0	40.3	21	20	17.7	12.9	15.4
1984	36.1	35.6	37.0	49	31	28.5	32.8	17.5
1985	33.6	36.2	28.9	25	17	19.0	23.9	19.0
1986	37.9	39.1	35.6	23	29	25.6	28.5	23.1
1987	37.4	40.5	31.3	19	24	21.7	19.0	27.2
1988	23.7	28.6	13.6	47	22	14.0	16.8	27.1
1989	35.4	40.5	23.6	10	18	45.3	36.1	32.3
1990	36.7	39.0	30.4	13	28	29.9	23.1	39.8
1991	29.5	30.8	26.0	20	27	29.0	20.7	45.9

Table 8: Interest rates in the Chinese banking system

Year	National Retail price index (% change) (McKinnon 1994, p. 452)	Nominal interest rate on household 1-year time deposit (McKinnon 1994, p. 452)	Nominal interest rate on household 3-year time deposit (McKinnon 1994, p. 452)	Nominal interest rate on loan to industry (McKinnon 1994, p. 452)	Nominal interest rate on loans to TVEs (McKinnon 1994, p. 452)	Real interest rate on household 1-year time deposit (McKinnon 1994, p. 452)
1976						
1977						
1978						
1979						
1980	6	5.4	6.1	2.5	2.2	-0.6
1981	2.4	5.4	6.1	2.5	2.2	3.0
1982	1.9	5.8	6.8	3.6	4.3	3.9
1983	1.5	5.8	6.8	7.2	4.3	4.3
1984	2.8	5.8	6.8	7.2	7.9	3.0
1985	8.8	7.2	8.3	7.9	10.1	-1.6
1986	6	7.7	8.3	7.9	10.1	1.7
1987	7.3	7.2	8.3	7.9	10.1	-0.1
1988	18.5	8.6	9.7	9.0	10.1	-9.9
1989	17.8	11.3	13.1	11.3	11.3	-6.5
1990	2.1	8.6	10.1	9.4	9.4	6.5
1991	2.9	7.6	8.3	8.6	8.5	4.7

Table 9: Bank lending to non-state sectors and lending and deposits of Rural Credit Cooperatives (RCC)

Year	Bank lending to urban collectives as % of total outstanding bank loans	Bank lending to urban individuals as % of total outstanding bank loans	Bank lending to TVEs as % of total outstanding bank loans	Bank lending to agriculture as % of total outstanding bank loans	Total non-state loans as % of total outstanding bank loans	Total deposits in RCC in billion Yuan (McKinnon 1994, p. 450)	RCC loans to TVEs as % of total RCC loans (based on McKinnon 1994, p. 450)	RCC total loans/total deposits (%) (McKinnon 1994, p. 450)
1976								
1977								
1978								
1979						21.59	29.9	22.0
1980						27.23	38.1	30.0
1981						31.96	36.8	30.2
1982						38.99	34.9	31.1
1983						48.74	36.7	33.6
1984						62.49	38.1	56.7
1985	4.95	0.17	5.63	6.85	17.6	72.49	41.1	55.2
1986	5.11	0.13	6.82	6.68	18.94	96.23	46.8	59.1
1987	5.47	0.16	7.25	7.28	20.16	122.52	46.6	63.0
1988	5.58	0.17	7.59	7.19	20.53	139.98	50.2	64.9
1989	5.15	0.11	7.39	7.12	19.97	166.95	52.2	65.6
1990	4.93	0.09	7.42	7.17	19.61	214.49	53.8	65.9
1991	4.74	0.08	7.63	7.39	19.84	270.93	55.7	66.8

Table 10: Comparison of Economic Performance of China and Viet Nam

Item	Viet Nam	China
Population growth rate during 1981–1988 (annual average in %) (Source: UNSD)	2.2	1.5
Population growth rate during 1991–2004 (annual average in %) (Source: UNSD)	1.5	0.9
Population growth rate during 1981–2004 (annual average in %) (Source: UNSD)	1.8	1.1
GDP (at constant prices) growth rate during 1981–1988 (annual average in %) (Source: UNSD)	5.9	11.2
GDP (at constant prices) growth rate during 1991–2004 (annual average in %) (Source: UNSD)	7.6	9.8
GDP (at constant prices) growth rate during 1981–2001 (annual average in %) (Source: UNSD)	6.8	9.7
Per capita GDP (at constant prices) growth rate during 1981–1988 (average per year in %) (Source: UNSD)	3.6	9.6
Per capita GDP (at constant prices) growth rate during 1991–2004 (average per year in %) (Source: UNSD)	5.9	8.8
Per capita GDP (at constant prices) growth rate during 1981–2004 (average per year in %) (Source: UNSD)	4.8	8.5
Inflation during 1981–1988, as measured by increase in GPI (arithmetic annual average in %) (Source: Tran 1994 for Viet Nam, McKinnon 1994 for China)	146.0	6.2
Inflation during 1981–1988, as measured by increase in CPI (arithmetic annual average in %) (Source: Tran 1994 for Viet Nam, MacKinnon 1994 for China)	145.0	6.4
Inflation during 1991–2003, as measured by increase in GDP deflator (arithmetic annual average in %) (Source: ICSEAD)	15.4	5.8
Inflation during 1995–2003, as measured by increase in CPI (arithmetic annual average in %) (Source: ICSEAD)	3.9	3.1
Budget deficit during 1981–88 (arithmetic annual average in %) (Source: Tran 1994 for Viet Nam; McKinnon (1994) for China)	18.5	2.2
Budget deficit during 1991–2002 (arithmetic annual average in %) (Source: ICSEAD)	1.8	1.4

Note: Abbreviations are as follows: General Price Index (GPI); Consumer Price Index (CPI); United Nations Statistical Division (UNSD); International Centre for the Study of East Asian Development (ICSEAD).

Table 11: Timeline of Economic Reforms in China and Viet Nam

Date	Reform in China	Reform in Viet Nam
1978 [Dec] (Third Plenum of 11 th CC, CPC)	Initiation of agricultural reforms: introduction of the <i>Household Responsibility System</i> , de-collectivization	
1979 [Aug-Sep] (Sixth Plenum of 4 th CC, VCP)		Initiation of reforms: introduction of the <i>Contract System</i> in agriculture and introduction of self-accounting and self-financing for SOEs
1979	Introduction of measures to facilitate export of manufactures and to allow for foreign investment	
1979	Beginning of gradual adjustment of the exchange value of Chinese Yuan	
1979	Creation of four coastal <i>Special Economic Zones</i>	
1981 [Jan] (CC, VCP meeting)		Adoption of <i>Resolution 100</i> formalizing adoption of the <i>Contract System</i>
1981 [Dec]		Adoption of <i>Decision 25</i> by the Vietnamese government the process toward <i>Three Plan</i> system for SOEs
1984	Initiation of industrial reforms; introduction of the <i>Dual Track</i> system	
1984	Creation of <i>Economic Development Zones</i> in fourteen largest coastal cities	
1985 [June] (8 th Plenum of VCP CC)		Adoption of Resolution on <i>Price-Salary-Money</i> ; introduction of stabilization measures and new currency to curb inflation
1986 (Sixth Congress of VCP)		Adoption of <i>Doi Moi</i> (Restructuring) program
1987		Promulgation of <i>Decree 217</i> by Vietnamese government to put SOEs on a commercial footing
1987		Further price reforms and attempts at stabilization;
1987 [Dec.] (National Assembly Session; enacted in 1988)		Adoption of <i>Law on Land</i> giving households long term user rights to land
1987 [Dec.]		Adoption of the <i>Law on Export and Import Duties on Commercial Goods</i>
1988 [Apr] Politburo CC, VCP		Adoption of <i>Resolution 10</i> enhancing rights of rural families vis-à-vis those of collectives/cooperatives
1988		Adoption of <i>Foreign Investment Law</i>
1988–89	Student unrest and <i>Tien An Mien</i> Event	
1989		Radical reform measures aiming at stabilization and liberalization
1992	Deng Xiao Peng's southern tour and reaffirmation of reform	
1993 [Nov] (CPC CC meeting)	Moving SOEs even further toward complete autonomy from the central government	
2001	China's accession to WTO	
2007		Viet Nam's accession to WTO

Note: The following abbreviations have been used: Central Committee (CC); CPC (Chinese Communist Party); VCP (Vietnamese Communist Party); WTO (World Trade Organization); and State Owned Enterprises (SOE).

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