

Fixed Versus Flexible Exchange Rate in China

By

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WTO and its integration with world goods and financial markets raise anew this issue. However, little has been written addressing the specific questions in China. Although this issue has been widely discussed in China, the literature seldom relies on advanced economic theories or other countries' experiences and lessons. Therefore, this paper introduces the general theories and criteria concerning exchange rate regime choice; examines certain aspects and lessons from developing countries; analyzes China's present exchange rate system and financial environment and tries to provide some policy implications for the future.

Choosing an appropriate exchange rate regime is not an abstract question with an absolute answer. In addition to a number of criteria, there are several other important principles to consider. It is essential to recognize that a country's exchange rate regime is one component of its general economic policy strategy, which needs to be consistent with other components, most importantly the conduct of the monetary and fiscal policies. A country's exchange regime should also be suitable for its economic environment with the ability to adapt itself to the new trends in this environment. It is important to know that whatever exchange rate regime a country pursues, the long-term success depends on the commitment to sound economic fundamentals and a strong banking sector. China successfully maintained its exchange rate regime in the past, even during the recent Asian crises. This is resulted from China's success in policy cooperation and prudence. But within the new global environment, it is no doubt that China should move to a more flexible exchange rate arrangement in the future. This process should be gradual and in pace with the other financial sector's

choice. It describes China's current exchange rate arrangement, analyzes its feasibility and soundness with its current financial situation and its cooperation with monetary and fiscal policies in different economic periods. Given current global patterns of trade, it is necessary that China move toward a more flexible exchange rate regime in the future. Several reasons are examined in this section. It is also pointed out that the future reform should be gradual at a pace in line with economic growth, financial reform and integration with the global market.

II. Evolution of Exchange Rate Regime, New Trends and China's Reform

Getting the exchange rate right is essential for economic stability and growth in developing countries, especially for China, which is under its way of economic and financial reform and accelerating its integration with the global goods and financial markets. The evolution and future trends concerning exchange regimes are very important to understand the internal and external environment.

II.1 Evolution of international exchange rate regime.

Exchange rate regimes and the current international monetary and financial system are profoundly different from those envisioned under the Bretton Woods agreement. This system allowed countries to maintain a pegged exchange rate, avoid the peg in order to avoid the undue volatility and prevent competitive devaluation while permitting enough flexibility to adjust to fundamental disequilibrium under

emerged and was coupled by increasing capital market integration. During the 1990s, developing countries gradually played a larger role in the increasing globalized economy. At the same time, the collapse of the Soviet Union and other former socialist economies signaled the beginning of their efforts to integrate with the world economy. Exchange rate regimes and policies differed widely across countries. The U.S. Dollar remained the major international currency in both goods and assets trade. The currency of the three largest industrial countries (US Dollar, Japanese Yen and Euro) floated against each other. Several medium-sized industrialized countries' currencies also floated independently. At the same time there were repeated attempts to limit exchange variability among various European Union countries with the Exchange Rate Mechanism (ERM) instituted under the European Money System (EMS). For developing and transitional countries, a mixture of exchange rate regimes prevailed, though many moved toward the adoption of more flexible exchange arrangements. Capital mobility was rising and globalization occurred at an accelerating pace. Private capital flows came to play a major role in the financing of current account imbalances for many countries.

The fourth phase is marked by the birth of the Euro at the beginning of 1999. It is an increasingly bi- or tri-polar currency system characterized by a high degree of capital mobility and a variety of exchange rate practices across countries.

From the evolution of the international exchange regime and currency system, we can draw important lessons and analyze the new trends, which will to some extent provide guidance for China and other developing countries facing choices concerning

countries is a prominent theme in the recent evolution of the international monetary system. Although it accelerates nowadays, the shift from fixed to a more flexible system dates back to the breakdown of the Bretton woods system in the early 1970s, when the world's major currencies began to float. At first, most developing countries continued to peg their exchange rates either to a single key currency, usually the U.S. Dollar or French Franc, or to a basket of currencies. By the late 1970s, they began to shift from single currency pegs to basket pegs, such as the IMF's special drawing right (SDR). However, developing countries have shifted away from currency pegs toward explicitly more flexible exchange rate arrangements since the early 1980s. This shift has occurred in most of the world's major geographic regions.

In 1975, 87 percent of developing countries had some type of pegged exchange rates, while only 10 percent had flexible rates (the remaining 3 percent were accounted for by the "limited" flexibility category). By 1985, the proportions were 71 percent and 25 percent, respectively. In 1996, only 45 percent had pegged rates while 52 percent had moved toward flexible regimes (Eichengreen and Masson, 1998). However it should be noted that a number of countries that officially report their exchange rate as "flexible" have exhibited remarkable exchange rate stability against the U.S. Dollar, including a number of Southeast Asian currencies prior to the recent crises in the region.

At the same time as the developing and transitional economies have been shifting their exchange regimes toward a system with greater flexibility, many of them have been moving toward current account convertibility and a somewhat less dramatic

countries and regional partners. The average share of external trade rose to about 40 percent from the late 1960s to the late 1990s. This trend has been more marked in the case of East Asia. Maintaining a tight exchange rate link to the currency of one of the major industrialized countries while conducting trade with other major countries can pose significant difficulties. Growing inter-regional trade linkages with countries that have different pegs or different regimes also poses significant problems. So the developing countries are likely to see that their interest lies in a policy regime with greater flexibility.

There are several other reasons that have contributed to the shift from fixed to flexible rates. For example, the acceleration of inflation among developing countries made the flexible exchange rate more preferable to absorb downward pressure and maintain stability. The shifts of exports toward manufactures made developing countries more exposed to external shocks, a flexible exchange rate will help to mitigate these shocks. The portfolio diversification, as a consequence of globalization, has markedly improved developing countries' financial markets, accelerates foreign exchange markets' development and made more flexible exchange rates possible. Although there are several important exceptions, this shift among developing countries has occurred worldwide.

The brief review of the history and new trends of developing countries' exchange rate arrangements has implications for China. The external environment facing China

the cost of exporting. The purpose was to encourage exports, restrict imports and serve the whole economy.

During this period of economic reform, the exchange rate of Renminbi was adjusted frequently. For instance, between January 1949 and March 1950, the Renminbi/U.S. Dollar exchange rate was adjusted 49 times. With the onset of the Korean War, China ceased tying its currency to the Dollar in favor of the British Pound.

From 1953 to 1972, with the highly planned economy and the generally fixed exchange regime against major currencies, China's exchange rate remained stable. During this period, the Renminbi/Pound exchange rate was adjusted only once from ¥ 6.893 /1£ to ¥ 5.908/1£. The Renminbi/Dollar exchange rate was only adjusted from ¥2.4618/1\$ to ¥ 2.2673/1\$ in December 1971 in response to the sharp depreciation of the Dollar (Song, 1999).

In this phase, the Renminbi exchange rate was relatively fixed as a result of its single currency peg. However, the computation was not based on the currency market. At the period of establishing the new country, China's capability of export is low and the demand for import is high. Also with the political consideration, the Renminbi exchange rate was overvalued in relation to the market price.

II.3.2 Phase Two (1973- 1985): A basket peg and dual exchange rate system

After the collapse of the Bretton woods system in 1973, the world's major currencies began to float against each other with significant fluctuation in response to

¥2.8 per dollar.

However, in order to comply to the single exchange-rate standard and facilitate international trading, the use of the internal settlement rate was discontinued at the beginning of 1985 and all transactions were to be executed at the official rate published by the State Administration for Exchange Control (SAEC).

II.3.3 Phase Three (1986-1993): managed floating and swap center----first step toward market determined rates

At the beginning of 1986, the PBC shifted its exchange rate policy from pegging to a basket of currencies to a managed floating. This was an important part of China's financial reform, driven by its desire to move toward market economy.

In November 1986, Chinese enterprises and foreign investment corporations in the four Special Economic Zones (SEZs) of Shantou, Shenzhen, Xiamen and Zhuhai were permitted to engage in foreign exchange transactions in the Foreign Exchange Adjustment Centers (FEACs) at the rates agreed between buyers and sellers. The establishment of the swap center marked the introduction of an embryo foreign exchange market in China. By October 1988, 80 swap centers had been established. The rate determined in the swap centers constantly depreciated relative to the official rate.

Meanwhile, the regulation of foreign exchange was still strict. The official rate remained unchanged at ¥3.72 per dollar from July 5, 1986 to December 15, 1989, during which time a 21.2 percent depreciation of the Renminbi was announced. At the

An interbank foreign exchange market was also established. All regional swap markets were amalgamated into the Shanghai foreign exchange center. It was managed by the China Foreign Exchange Trade System (CFETS). CFETS offers trading and settlement services to its members, which include domestic banks, foreign banks and a number of non-bank financial institutions (NBFIs). The Renminbi is primarily traded against the US Dollar with a small portion of trading against the Hong Kong Dollar and the Japanese Yen. There are no forward transactions or hedging operations in this market.

During this time some older regulations were nullified while new regulations were enacted. In the unified market, the issuance of retention quotas was terminated. The priority lists that governed the provision of foreign exchange and regulated market access were abolished. Under the new regulations, domestic enterprises are required to conduct their sales and purchases of foreign currencies and receive current transaction control through authorized financial institutions. On the other hand, the foreign-funded enterprises (FTEs) may purchase or sell foreign exchange directly from the CFETS. Different regulations also apply to domestic and foreign banks. Domestic banks may buy and sell foreign exchange for their customers, while foreign banks may only sell foreign currencies against the Renminbi. Foreign banks are not allowed to operate in the domestic money market. (Mehran, Quintyn, Nordman and Laurens, 1996). Another important regulation is the “regulation of foreign exchange purchasing, selling and providing” (Yang, Yang, 1999). This requires that domestic banks to hold a minimum amount of liquid foreign exchange assets to ensure that they

in which access to foreign exchange was highly restricted and the exchange rate was firmly administered to a system wherein the exchange rate was unified and stabilized via a market based managed floating.

Economic development and reform have accompanied the evolution of China's exchange regime. As China has had little experiences with market based economic activity, it is important to consider the institutions, which govern economic behavior there and in other countries as well before deciding upon the appropriate exchange rate arrangement for China. Although this question has been widely discussed in China, the literature is seldom based on economy theory or economic history. In order to answer this question, we should briefly review the early literature concerning the exchange regime choice to build an appropriate theoretical framework. In addition, careful examination of developing countries' experiences should also be considered. Finally, before studying China's case in detail, it is important to consider the events leading up to the recent Asian currency crisis.

III. General Considerations Regarding the Choice of Exchange Regime

The literature concerned the desirability and feasibility of an exchange rate regime includes a discussion of the relative merits of fixed and flexible exchange rate, "optimum currency areas" and monetary versus exchange-rate-based stabilization.

This section focuses on some general considerations about the exchange regime choice in the context of industrialized countries. For these countries, the choice

In the face of foreign nominal shocks, the early debate between the merits of fixed and flexible exchange rates (Friedman, 1976) favored flexible exchange rates and was built around an implicit sticky-price model. It emphasized the insulation properties of market-determined exchange rates. Faced with movements in the foreign price level, domestic prices can be stabilized by a suitable adjustment in the exchange rate. Thus, when foreign nominal shocks are most prominent, flexible exchange rate is desirable.

The early literature also demonstrated that when domestic shocks are important, the choice of exchange rate regime depends on whether these shocks are monetary or real. When domestic shocks originate in the domestic money market, conventional theory indicates that a fixed exchange rate is more effective in stabilizing the output. A disturbance to money demand or supply would be countered by offsetting changes in the international reserves under a fixed exchange rate. Thus it would not affect the supply-demand conditions in the goods market. In contrast, if domestic shocks originate in the goods market, the flexible exchange rate would be more desirable for output stability. Shocks to domestic goods demand would generate offsetting changes in foreign demand through an adjustment in the exchange rate, which will moderate the impact of the domestic shock to output (Mundell, 1962). In general, since the economy is likely to be faced with both nominal and real shocks originating at home and abroad, the exchange rate regime that can stabilize domestic output efficiently will be characterized by some intermediate degree of flexibility.

III.3 Structural characteristics

exchange regime, the rate would appreciate and help to stabilize the output. In contrast, for a positive real shock, a fixed exchange rate would be desirable. A flexible exchange rate instead might exacerbate the destabilizing effect. A real foreign shock spills over to the domestic goods market and by raising foreign interest rates, causes a domestic capital outflow, a depreciation of the currency which further destabilizes domestic output. Under a fixed exchange rate, the capital outflow would push domestic interest rates up and dampen the impact of a higher external demand on domestic output. With the same logic, it can be demonstrated that following a domestic monetary shock, a high degree of capital mobility makes a fixed rate more effective in stabilizing output by limiting the destabilizing movements of domestic interest rates. Given a domestic demand shock, in contrast, the fixed exchange rate amplifies the destabilizing effects on output by preventing the change in the interest rate.

The degree of wage rigidity also influences the effectiveness of exchange rate policy. The effects of a nominal devaluation on the output depend mainly on how nominal wages and prices respond to devaluation. If devaluation causes a large increase in the nominal wage, the change in the real wage is small. When the indexation of the wage to the general price level is high, the effect of a change in the nominal exchange rate upon the real wage and the output will be small (Arizenma and Frenkel, 1985).

The above discussion on exchange regime choice provides the theoretical

IV.1 Flexibility and domestic financial sector

One salient difference between the developing countries and the industrialized countries is the degree of financial sector development, which affects the choice and implementation of the exchange rate regime.

It has been argued that there are two important conditions that must be met in order for a flexible regime to be feasible (Wickham, 1985). First, the domestic financial system must be well developed. Second, the domestic asset market must be well integrated with the international system. Domestic and foreign currency assets are substitutes in the private portfolios of wealth holder. Since developing countries' asset markets tend to be less sophisticated and do not exhibit a high degree of integration with the rest of the world, flexible exchange rates seem inappropriate there.

IV.1.1 Status of domestic financial sector

An advanced financial sector is comprised of well-developed institutions, instruments and markets and is necessary for the existence of a flexible exchange rate regime (Mehran, Quintyn, Nordman and Laurens, 1996). The institutions include the establishment of banks and other financial intermediaries as well as the infrastructure, such as the payment system. In advanced financial systems, there are well-established institutions that efficiently and competitively coordinate the demands and supplies of various financial assets. In developing countries, the predominant source of financial

seems apparent that exchange rate determination via the market forces is not a realistic option (Black, 1976).

Another feature of developing countries' financial sectors is the strict control on the current and capital account transactions as well as the domestic financial market. For instance, the freedom to make and receive current payments is often curtailed by import quotas and restrictions on access to foreign exchange. Capital inflows and outflows are strictly controlled. Governments often want to centralize foreign exchange transactions in the central bank or use the commercial banks as heavily regulated agents to enforce the control. The authorities directly determine the exchange rate. In the domestic financial markets, interest rates are also directly determined by the monetary authority and are typically fixed. Government budget deficits are frequently financed through direct borrowing from the central bank or by the sale of securities at pegged interest rates. Under such a policy environment, it is not surprising that the development of financial sectors has been retarded.

For a competitive and unified foreign exchange market to emerge, current account convertibility is needed. Nonbank individuals must be given substantial freedom to make and receive current account payments. An efficient payment clearing process is required. Financial intermediaries should be given greater freedom to engage in interbank foreign exchange transactions, hold foreign assets, negotiate lines of credit and make other transactions with foreign banks. The liberalization of domestic interest rates is also needed to broaden both domestic and international intermediation and support the exchange rate. With these reforms, nonbank

service flows to relative price changes will be delayed. Thus in the period immediately following an exchange rate change, the terms of trade typically moves against the country whose currency has depreciated and offsets any effects of the exchange rate change on trade volumes.

On the other hand, speculators are assumed to have a stock demand for net foreign assets that is sensitive to expected capital gains. So there will be desirable changes in stock demands in response to the expected appreciation or depreciation. So, for dynamic stability in the foreign exchange market to obtain short-run capital flows to expected relative asset yields are necessary. In the circumstances that financial market separation prevents the possibility of speculative capital flows, the floating rate will be unstable in short run. The flexible exchange rate is not desirable from this perspective. It should be pointed out that this conclusion is drawn on the assumption that the domestic financial sector is sound.

Without a healthy financial sector, developing countries should not integrate with the world financial market too quickly. Prudential policies should be undertaken. One important thing to consider here is that whatever exchange rate regime a developing country pursues; long-term success depends on a strong banking sector. High integration with the world system puts more demands on the banking system. With a generally weak banking system and little integration with the world market, developing countries are thought to be more suited to adopt fixed exchange rates.

IV.2 Implication of “Optimum Currency Areas”

important in computing the domestic currency price of tradable. In addition, developing countries depend on particular primary product exports, which are subject to price cycles and real domestic supply shocks. A floating rate would render real commodity prices highly variable even if the supply of other currencies were stable. For countries exhibiting high economic growth or a weak monetary system, the inflation rates are high and variable. Thus, the policies are uncertain.

Taking these points into consideration, OCA theory argues that developing countries with open economies should peg in order to secure the monetary value of their currencies. Mundell (1961) argued that an optimum currency area will improve money's effectiveness as the medium of exchange (due to a reduction in transaction costs), a store of value (due to a reduced element in exchange risk) and the unit of account (due to informational economies). In highly opened developing countries, the ratio of tradable to nontradable output is large. It was argued that if a country issues its own currency and allows it to float against that of a large trading partner, the amplitude of fluctuations in the exchange rate would likely cause a corresponding fluctuation in the domestic currency price of tradable. This in turn causes considerable variability in both the price level and relative prices because monetary policy is only capable of affecting the price of nontrable. This tends to undermine the ability of a domestic currency to perform its monetary function and encourage agents in the economy to substitute foreign currency to domestic currency (Mckinnon, 1963; Katseli, 1981; Connolly, 1982).

Despite all the benefits of having a domestic currency that serves the needs of

exchange stability, governments will then be compelled to limit either the movement of capital or their own policy autonomy. If they are unwilling to sacrifice either, they have to forsake the pegged exchange rate. It should be recognized that there are both costs and benefits involved in choosing either fixed or flexible exchange rates. An optimum currency area consideration can help to improve the benefits and limit the costs.

For a developing country to decide if it should peg and which currency to peg to, a series of criteria defining an optimum currency area are available. First, the two areas must exhibit similar inflationary patterns (Fleming, 1971). When the inflation rates between a developing country and an industrialized country are similar, an equilibrium flow of current account transactions is more likely to take place and less likely it will need adjustment through a flexible exchange rate. Then a fixed link between the two currencies would be desirable.

The second to be considered is production and export diversification (Kenen, 1969). A high degree of production and export diversification provides some insulation against a variety of shocks and forestall the need to make frequent changes in the terms of trade via the exchange rate. According to this criterion, if a fixed regime is desirable for certain developing countries, the choice of a peg depends on how concentrated its trade and capital account links are with a particular industrialized country and the degree of similarity between their productive structures.

The third criterion regards the symmetry of shocks, as asymmetric shocks are likely

goods (Aghevli, Monhsin and Montiel, 1991). Such rates help to maintain external competitiveness and yield internal and external equilibrium. But because of a variety of real shocks, the real exchange rate may deviate from the equilibrium level. For example, a major cause of deterioration in external competitiveness in most developing countries has been a high rate of domestic inflation coupled with the maintenance of a fixed nominal exchange rate. From this point of view, a flexible exchange rate would be desirable because it can prevent the emergence of large and sustained misalignments between relative prices and thereby avoid an external imbalance. By adopting a flexible regime, the authorities would be free to formulate their monetary policy in accordance with their domestic objectives, allowing exchange rate adjustments to equilibrate the balance of payments.

But several questions need to be contemplated regarding flexible exchange regimes. It has been argued that a flexible exchange rate does not free the authorities from the external constraint on their domestic policies. Under capital mobility, domestic policies greatly influence the interest rates, which will have effects on the exchange rates and the current account balance consequently. These, in turn, will constrain the domestic policies (Turnovsky, 1976). Another issue is whether the authorities under a flexible exchange regime can effectively use their independence in policy making to achieve their domestic objectives. Proponents of fixed exchange rates argue that a fixed regime can impose financial discipline that would be absent under a flexible regime. By discouraging inflationary finance, a fixed regime would help to achieve financial stability. So it is important to consider the authority's

regime imposes fiscal discipline that requires the government's primary surpluses satisfy an intertemporal budget constraint.

A fixed regime by tying the hands of the authorities enables them to maintain the balance of payments.

A fixed exchange rate is said to be desirable also because it can serve as an anchor and help the authorities to establish credibility in pursuing noninflationary policies. Such credibility could also be gained by other means, such as announcing inflation and monetary targets. But the exchange rate is the most desirable instrument. Because the inflation rate is not under the direct control of the authority, an inflation target that is not linked to specific policy commitments which can be readily monitored is not likely to be credible. Under a monetary target, the monetary aggregates can be monitored, but the relationship between various monetary aggregates and inflation is quite complex. The exchange rate is readily observable at any instant, as opposed to inflation and money supply data, which are provided by authorities with a lag. By announcing a fixed exchange rate, the authorities would undertake all the necessary policies to establish and maintain price stability. Thus, the exchange rate is more desirable as an anchor.

IV.3.2 Credibility versus flexibility

A fixed exchange regime can impose financial discipline and successfully provide an anchor only if the exchange rate is fixed permanently and not adjusted periodically.

expect a high inflation rate. The authorities' effort to maintain a fixed regime and to stabilize the price would thus introduce a negative inflationary surprise, leading to higher-than-expected real wages and a correspondingly lower supply of output. In this scenario, the authorities have to abandon the official exchange rate to avoid deflationary surprise and output contraction. The third reason is that the credibility is not sufficient. The authorities' commitment to a fixed regime may not be credible for long especially when the economy is not functioning successfully. For example, maintaining high interest rates to defend the exchange rate may over time undermine the credibility of the fixed regime. An unsustainable fixed regime would only result in a sharp devaluation, a succession of financial crises and a high degree of economic instability. By contrast, in a flexible regime, the cost of an unsustainable policy may reveal more quickly through flexible exchange rates and prices. From this aspect, a flexible regime may exert an even stronger discipline on policy. In most developing countries with a high and persistent inflation rate, the use of fixed exchange rates as an anchor and a provider of financial discipline has not been successful because the governments have little credibility and the economic fundamentals are weak.

IV.4 Adjustment and price and wage rigidity

In order to maintain internal and external balance, the process of adjustment under fixed and flexible regimes is quite different. Which process is desirable depends on the relative costs. The decision is critically influenced by the degree of flexibility in wages and prices.

The choice of appropriate exchange regime depends on the relative cost of the two adjustment systems. Under a downward price and wage rigidity, which is common for most developing countries especially those with highly planned economies, a flexible exchange rate is more desirable. This is because an exchange rate change, which corrects relative prices immediately, would avoid most of the cost of a prolonged period of fiscal correction due to price and wage rigidity.

IV.5 Lessons from recent emerging market crises

We have studied several issues concerning the choice of exchange rates in developing countries. But from a theoretical perspective, it is still not easy to say which regime is more desirable for developing countries in general. However, recent crises involving emerging market economies, from the “tequila crisis” of 1995 to the Asian, Russian and Brazilian crises between 1997-1998, carry important lessons for developing countries concerning exchange regimes. Many qualified observers such as Eichengreen (1999) conclude that for developing countries that rely upon having access to global capital markets, a fixed exchange rate is inherently crisis-prone. These countries should be encouraged out of their own interest and for the broader interests of the international community, to adopt more flexible exchange rate regimes.

This section examines the reasons for the recent crises and their global effects and analyzes the aftermath of the crises in order to draw up policy lessons that can be incorporated into developing countries’ exchange rate policies.

and Turkey who adopted more flexible regimes prior to the crisis performed much better (Mussa, Masson and Swoboda, 2000). Fixed regimes are said to be inherently crisis-prone. They accumulate upward pressures and economic instability before the crisis, and without the ability to absorb adverse shocks, which led to their collapse in the crisis.

Unhealthy economies and weak financial systems

That being said, the exchange regime alone cannot account for the pre-crisis vulnerability and the subsequent damage. Severe problems in economic fundamentals are important sources to consider as well. In fact, the crises stemmed from the interaction between large capital flows leading to a boom-bust economy and weaknesses in corporate, banking and public sector governance. Several years of rapid growth masked underlying problems associated with a long period of intervention, administrative guidance and directed lending, which gradually eroded the country's resistance to shocks. In Russia, the chronic incapacity to meet its fiscal responsibilities has been a severe problem for the central government in addition to the general culture of nonpayment and noncompliance with ordinary commercial practices and obligations. In Asian countries, such as Thailand, Malaysia and Indonesia, optimism about the economic outlook led to rapid credit expansion. A surge of inflows financed investment booms, particularly in real estate, which are government directed projects of questionable value in many cases. Large appreciation in real exchange rates and high current account deficits under a boom-bust economy heightened the risk of crisis, which ultimately led to adverse external developments

sentiment, which generated tremendous downward pressure on exchange rates, can be viewed as the trigger of the crisis. In response, domestic authorities have to either greatly increase the interest rate or keep the interest rate unchanged and adjust the exchange rate to the new equilibrium level. However, on one hand, interest rate was unable to be changed, since this would damage the already weakened banks and business. On the other hand, with large exposure to foreign-currency denominated debts, adjustment of the exchange rate is also resisted. When this situation was clear and the authorities ran short of reserves speculative attacks overwhelmed. Once the peg is broken, the recognition of the financial disruption and the massive depreciation are mutually reinforced. The economy will suffer a prolonged period of overly depreciation, seriously damage in financial sectors and business and further losses in policy credibility.

IV.5.3 Lessons and implications

Advantage of flexible exchange regime

More flexible exchange rate regimes are said to be more desirable for developing countries that exhibit greater capital account liberalization and an integrated capital market. Allowing the exchange rate to appreciate gradually to accommodate upward pressure would be a safer way to maintain long-run economic stability. With the onset of the crisis, a flexible regime would allow large adverse shocks to be more easily deflected or absorbed than a pegged exchange rate regime and avoid the large costs that often accompany a breakdown of the exchange rate regime. Furthermore, a

the recent crisis, thus changing regimes will not necessarily mitigate future disasters. Healthy economic fundamentals are essential (Kochhar and Loungani, 1998). First, the potential for boom-bust cycles should be minimized. Maintenance of a prudent macroeconomics policy, realistic exchange rate and a low inflation rate are needed to ensure sustainable long-term growth. An appropriate cooperation between monetary and fiscal policies would get rid of the potential profit opportunities that entice speculators to bet against developing countries' authorities. Second, sound financial systems are also fundamental. Financial sector reform should be aimed at completing financial markets, increasing the solvency of the domestic financial system, raising prudential standards and supervision to the highest quality and improving the efficiency of financial intermediation. Another important point is that capital account liberalization should be orderly and properly sequenced and linked carefully to the strengthening of the domestic financial system so that the appropriate exchange rate policy is met. Third, the financial difficulties in the affected countries owe much to the close link between the government, business and banks, to the system of direct lending and other quasi-fiscal activities undertaken by the government, and particularly to the resource allocation distortions arising from these links. It is important to improve governance both in public policy-making and corporate sectors. In order to strengthen market forces, a strong legal framework is needed to dictate the rules governing corporate behavior and ensure that creditors and shareholders face strong incentives for responsible management.

addition to the criteria outlined above, there are several important principles to consider. First, it is essential to recognize that a country's exchange rate regime is only one component of its general economic policy strategy and needs to be consistent with other components, especially with the conduct of the monetary and fiscal policies. Second, a country's exchange regime should suit its economic environment and adapt to new trends in this environment including changes in the degree of economic integration and capital mobility. Finally, it is important to know that whatever exchange rate regime a country pursues, long-term success depends on a commitment to sound economic fundamentals and a strong banking sector.

By juxtaposing the theoretical framework against analysis of the factors that caused the recent crisis, it is possible to assess China's choice among exchange regimes.

V. China's Exchange Rate Regime Choice

V.1 Current status-----tightly managed floating

The introduction of an embryo foreign exchange market in China started with the establishment of the Foreign Exchange Adjustment Centers (Swap Centers) in some specified cities in November 1986 (see details in II.3.4). Under "guiding priority lists" and "retention quotas", the Chinese enterprises and foreign investment corporations were permitted to engage in foreign exchange transactions in swap centers at the rates agreed between buyers and sellers (swap center rate). As the market forces emanating

reference exchange rates (Yang and Yang, 1999). These thin margins are what make China's "floating regime" a heavily managed one.

V.1.2 Regulations on the foreign exchange selling, buying and providing

In China, foreign exchange transactions and provisional activities are strictly defined and controlled. An important regulation is the "regulation of foreign exchange selling, buying and provision" (Yang and Yang, 1999). This decree states that domestic enterprises and residents are required to conduct their foreign currency transactions through authorized financial institutions only. Foreign currency obtained under certain items and certain amount are required to sell. It also states that domestic banks are required to hold a minimum amount of liquid foreign exchange assets to ensure that they have adequate liquidity to meet their obligations in foreign currencies. Banks have to cover any shortfalls in these funds on the next day. However, if foreign exchange holdings exceed the limit, banks are required to sell the excess in the CFETS market. Because of these restrictions on selling and buying, there are usually excess demands or supplies in the interbank market. So the interventions are necessary.

V.1.3 Intervention of central bank

In order to affect its tightly managed floating, the PBC has established the central target or reference rate. Fluctuations in the Renminbi/Dollar exchange rate are not permitted to exceed +/- 0.3 percent in the CFETS market. The PBC is committed to

accomplished. (2) Capital account is still restricted. For example, the 27th item of the “regulation of foreign exchange selling, buying and provision” requires that any foreign exchange sales obtained under the capital account; such as with foreign-currency investment or borrowing should obtain prior approval from the SAEC (Yang and Yang, 1999). Strict controls limit capital inflows and outflows, especially in short term, which helps to maintain the fixed exchange regime. China has maintained its exchange rate peg through the turmoil of the recent Asian financial crisis and made an important contribution to the restoration of financial stability in the region. However, with the increase in capital mobility and greater integration with world trade and financial markets, China should actively prepare for capital account convertibility and gradually move to a more flexible exchange rate regime. These proposals weigh heavily in discussions of the direction of future Chinese reforms.

V.2 Economic environment and feasibility

One of the important principles concerning exchange regime choice which were discussed in section IV was that whatever exchange rate regime a developing country pursues, long-term success depends on a strong banking sector. When the banking system is weak and less integrated with the world market, a highly flexible exchange regime is thought to be unfeasible for developing countries. China's current exchange rate arrangement comes from its undeveloped financial sector and less open financial market.

oriented supervision has also led to a situation wherein the four state-owned specialized banks have become universal banks, whose risky nature become even more apparent in an inadequately regulated environment. Moreover, their close relationship with the government compelled the specialized banks to follow conflicting mandates. Banks have increasingly been stimulated to become profit oriented, while at the same time they had to operate under the government instruction, mostly in the form of policy lending. The main consequence of this lending practice is that the quality of the loan portfolios is poor. The weakness of these banking institutions hampers the competitiveness and efficiency of China's financial markets.

With inefficient financial intermediation, it is difficult to implement a highly flexible exchange regime.

Financial instrument development has been concentrated on the gradual development of capital market in China. The capital market began to develop in 1981 when the Chinese government began to issue government securities. Since 1988, secondary markets in bonds and shares of stocks have been allowed to operate. But under these poorly developed markets, there is only a small range of financial instruments in the market and trade in these instruments is very limited. Government bonds (treasury bonds) in China, was an alternative to credit plan (command loans planed by the government) during the first few years. Other types of bonds such as, key construction bonds, special state bonds, enterprise shares and corporate bonds appeared later. But issuance was also highly controlled by the authorities. The volume of non-government debt instruments is very limited. Since 1988, financial bonds have

requirement that the state council give prior approval for each rate change makes the process cumbersome and lengthy. Second, the interest rate policy is self-conflicting: on one hand, it is directed to encourage long-term savings mobilization, but on the other hand, it is directed to facilitate borrowing by state-owned enterprises, particularly those with financial problems. This results in negative margins for the banks and the use of indexation schemes for long-term deposits. Third, the specialized banks rely heavily on borrowing from the PBC (up to one third of their resources). Changes in the PBC's lending rates affect the average cost of the banks' resources directly and dramatically. With insufficient competitiveness and interest rate liberalization, the price mechanism can not operate effectively. Accordingly, China's financial market does not have the necessary width and depth and thus, allowing the exchange rate to be determined by market forces is not a realistic option for China. The lack of a strong financial sector and especially a viable foreign exchange market that would operate with reasonable stability in the absence of guidance from authorities makes the tightly managed floating a more desirable exchange regime for China.

V.3 Implementation of tightly managed floating

The decision to maintain a managed floating is based on the authority's recognition of the idiosyncrasies of China's financial environment. What is impressive about the PBC's exchange rate management since it began to track the Dollar in 1994 is that it successfully maintained the peg through all the turmoil during the recent financial

capital mobility and significant involvement in the global financial markets, China is less vulnerable than most emerging economies to a rapid and massive build-up of speculative pressure against a pegged exchange rate. This explains its relative ease in maintaining the exchange regime even throughout the crisis.

V.3.2 Cooperation of monetary and fiscal policy (Achievement of internal and external objective)

Another important principle concerning exchange regime choice, which we had drawn in section IV, is that it is one component that has to be consistent with the general economic policy strategy, especially the conduct of monetary and fiscal policies. Whatever exchange rate regime a country pursues, long-term success depends on sound economic fundamentals. Capital controls alone cannot explain the PBC's success in maintaining the pegged rate. Without policy cooperation and economic development, these goods could not be accomplished.

For developing countries, the macroeconomics objective is to achieve internal stability and equilibrium in the balance of payments. Under a fixed regime, the authorities adjust monetary policy corresponding to the needs of external equilibrium and fiscal policy to maintain internal stability. Under capital mobility, the interest rate becomes an effective policy instrument in external adjustment, but when capital controls are in effect, interest rates can be freed to achieve internal objectives. In China, the primary objective is to maintain the stability of the output and the price level while keeping the exchange rate pegged.

increase. On the other hand, as a result of external adjustments in the foreign exchange market (Through the Renminbi sales and the Dollar purchases), the Renminbi supply increased dramatically. Since 1994, the PBC's intervention in the foreign exchange market became the main channel for the money supply. In 1993, the ratio of foreign exchange to total assets held by the PBC was 10.5%. By the end of 1997, this ratio increased to 40.3%. External adjustments accelerated inflationary pressure.

In order to maintain healthy economic fundamentals and ensure long-term growth, China's authority implemented tight monetary policies and fiscal policies since 1994. This was primarily done by decreasing banking credit, buying back government bonds and issuing financial bonds, etc. At the same time, supervision and prudential controls were increased for bank lending. Huge efforts were made to stop direct lending and relationship lending. In this period, many real estate investments, especially government directed projects of questionable value were ceased. In 1995, the price index decreased by 14.8%. In 1996, this index decreased to 6.1% and reached the lowest level of 0.8% in 1997. At the same time the economy maintained annual growth rates of 9.6% and 8.8% in 1996 and 1997, respectively. The soft landing had been successful.

China's international balance of payments between 1993 and 1996

account	1993	1994	1995	1996
Current account(US\$ Billion)	-11.902	7.658	1.618	7.242
1.trade(US\$ Billion)	-10.655	7.290	18.050	19.535
2. Labor service (US\$ Billion)	2.420	-0.969	-17.867	-14.422
Capital account (US\$ Billion)	23.472	32.644	38.674	39.967
Capital reserve(US\$ Billion)	21.199	51.620	73.597	105.029
Retail price index (%)	13.2	21.7	14.8	6.1

impact on the internal economy was also strong. Domestic demand began to decline and prices continued to decrease. In October 1997, the retail price index began to decline. A mild deflation of -0.8% in 1998 worsened to -1.3% in 1999, which generated pressure to depreciate and a decline in economic activity (Cheng, 2000).

A successfully maintained pegged exchange rate requires a healthy economy and sustainable growth. In order to achieve internal and external objectives, China's authority imposed a series of monetary and fiscal policies to increase domestic demand and encourage exports. Monetary policy was conducted through the use of interest rates to affect internal adjustments given limited capital mobility. From May 1996 to June 1999, the PBC decreased interest rates seven times in order to stimulate the economy. The rate on one-year deposits was decreased from 10.98% to 2.25% ; the rate on short-term liquidity asset loan was decreased from 12.06% to 5.85% . Interest rates on seven other lending activities, such as consumption loans for housing and education and export loans were also decreased. The PBC also expanded credit for commercial banks by increasing money supply. Officials coordinated their monetary stimulus with an expansionary fiscal policy. For instance, in 1998, the export tax deduction rate was increased and the construction fee for residence building was adjusted. In 1998, central government also issued 100 billion-Yuan "key construction bonds" to state-owned specialized banks and in 1999, the bond issuance increased to 210 billion Yuan. These actions were accompanied by PBC mandated increases in commercial bank credit of 100 billion Yuan and 420 billion Yuan in 1998 and 1999, respectively.

was successful in staving off panic among foreign investors and maintaining domestic economic stability. Finally, large foreign exchange reserves and a substantial current account surplus ensured the ability to maintain the pegged exchange rate and the credibility of the authority.

V.4 Reasons for future reform toward flexibility

V.4.1 New environment and flexibility

Though the reform has been successful so far, there is still the issue of what direction it should take in the future. Now that the turmoil of financial crisis has subsided and Asian economies are reviving, it may be time for China to consider a more flexible exchange rate regime. In China, economic reform and openness is progressing. The increasing reliance on both the international and domestic markets to allocate resources, including foreign exchange, means the establishment of effective price mechanisms is essential. Thus, a market determined foreign exchange rate is needed for financial reforms. Furthermore, Renminbi misalignments have been negligible for nearly 6 years. Estimates of the real Renminbi/Dollar exchange rate indicates that it is appreciated by 5% between 1995 and 1999. China's future membership with the WTO means that it must relax its restrictions on capital flows and this will require a more flexible exchange rate.

In November 1999, the Chinese and US governments reached an agreement

The primary issue in effective reform is timing. The problem facing China is to consider an exit strategy.

If a country exits from a fixed regime during a period of substantial downward pressure or as a result of a speculative attack, such as the Asian crisis, the chance of a smooth transition is not good. This kind of exit is generally accompanied by a significant loss of policy credibility, a sharp fall and substantial volatility of the real and nominal exchange rates and an extended period of declines in output.

However, a country can make a successful transition to a more flexible exchange rate regime without substantial economic disruption if they make the regime shift during a calm period in the foreign exchange market or when there is upward pressure on the exchange rate (Eichengreen and Masson, 1998). During such times, it is unlikely that people will conclude that the authority was forced to make the regime shift and correspondingly there should be less risk of credibility loss. Moving toward greater exchange rate flexibility during a period of upward pressure or a surge of capital flows means that the exchange rate will begin its more flexible life with an appreciation. While such an appreciation may have an impact on exports, it will ensure a general confidence in the authority's policy and will not affect macroeconomics stability. These conclusions had been repeatedly proved by recent experiences. For example, Chile, Israel and Poland have successfully moved to greater flexibility under the upward pressure of their currency, while Mexico and Thailand experienced significant financial disruption and loss of policy credibility when forced to abandon their fixed regimes.

liability rate (ratio of foreign liabilities to GDP) is kept at 15% annually, which is also much lower than the international criterion of 25%. Moreover, China's foreign reserves have increased to \$154.68 billion. With so many foreign reserves, a sustainable current account surplus, increasing capital inflows and a proper foreign liability structure, a smooth transition is likely to be ensured.

V.4.3 OCA theory and peg to U.S. dollar

Since the foreign exchange system reform in 1994, the Renminbi has been pegged to the U.S Dollar, which gives rise to what can be considered as an "optimal currency area". In fact, during the nineties, almost all the major Asian countries chose to peg to the U.S Dollar, although in different forms or with different extent. They comprise what has come to be known as the "Asian Dollar Area".

However, to maintain a fixed exchange rate implies a sacrifice of monetary independence. It means that the domestic monetary authority has to impose the same monetary policy as the country to which it pegs its currency. According to OCA theory, for a country to decide whether to peg and which currency to peg to, a series of criteria need to be considered such as similarities between inflation rates, production and export diversification, symmetry among shocks, trade integration, etc. Taking these criteria into consideration could help to maximize the benefit from the peg and minimize the cost of policy conflicts.

There are big differences between the Chinese and US economies. This inevitably leads to differences in macroeconomics policies (Zheng, 2000). Since 1997, the

among the major currencies and other Asian countries' moving away from their pegs, China's optimal policy choice is an exchange regime with greater flexibility.

V.5 Steps of future reform

One important principle for China's foreign exchange system reform is that the move toward a more flexible exchange rate regime should be done gradually to assure that all conditions for the successful operation of the new regime are put into place before its arrival. Regime shifting and capital account liberalization should in particular be consistent with the internal policy arrangement and the financial sector reforms.

V.5.1 Monetary and fiscal policy arrangement

Since a country's exchange rate regime is one component of its general economic policy strategy, it needs to be consistent with the other components, most importantly the conduct of the monetary and fiscal policies. When exiting from a regime with a high degree of exchange rate fixity, macroeconomics arrangement needs to be addressed in the interest of a smooth transition.

The Renminbi/Dollar exchange rate has been tightly fixed between 8.2 and 8.3 for 6 years. It has served as a key anchor for monetary policy and experienced

maintain strong economic fundamentals are in particular important for a flexible regime to perform successfully when capital mobility is high.

Restructuring the banking system and fostering competition are important. China's current problems with financial institutions owe much to the close links among the government, state-owned enterprises and specialized banks. Strong efforts should be made to stop the direct lending and other quasi-fiscal activities on the part of the government. Resource allocation distortions arising from these links should be stopped. Modern management techniques are also important. Asset/liability management, loan risk management and loan monitoring should be adopted by China's commercial banks. A set of prudential ratios, norms for financial reporting and disclosure standards are also essential elements for the supervisory and regulatory framework, which will foster prudent behavior by financial institutions. Reforms should also emphasize getting commercial banks to respond to monetary policy signals such as interest rates. Fostering competition and liberalizing interest rates are equally important.

Financial market reform should focus on interest rate liberalization, which is essential for the efficient allocation of financial resources and necessary to support the market exchange rate under an environment of the strong capital mobility. Based on China's current environment, reform calls for a gradual approach. Liberalization should focus on the interbank market, lending and deposit rate in turn. This is because the interbank rate market has the smallest social exposure, while it will take longer for the public to become accustomed to a different way of setting deposit rate. In order to

interbank market is important. The market is the most efficient allocator of resources when all the participants face the same rules and regulations and correspondingly compete on the same basis. In China's current foreign exchange market, this is not the case yet (Yang, 1999). Foreign funded enterprises have the rights to retain foreign exchange while domestic enterprises have to surrender their foreign exchange to the financial institutions according to the requirement. FFEs could also purchase or sell foreign exchange directly from the CFETs, while domestic enterprises have to use financial institutions to affect their transactions. Different regulations also apply to domestic and foreign banks. Foreign banks are restricted in their business activities to handle foreign exchange sales of FFEs. Addressing these issues in future reforms is important. It is essential for the development of the foreign exchange market to ensure equal access to the market for both domestic and foreign banks and enterprises.

Third, regulations should become market friendly and trading should be facilitated. In China's current interbank market, the wholesale market does not provide direct dealings between the banks. While wholesale market transactions (those between the CFETS and the banks) are settled on the next business day, retail market transactions (those between bank customers) are settled on the same day. This difference makes efficient position and risk management in banks difficult. Banks have to hold liquid funds idle to meet the unforeseen contingencies arising from retail transactions (Mehran and Quintyn, 1996). Future reform should be directed to make the settlement period for retail transactions the same as the settlement period in the CFETS market, which will improve the market evolution and making. An extension on the trading

V.5.4 Steps of capital account liberalization

An important issue regarding reforms toward a flexible exchange rate regime is capital account liberalization. Capital account liberalization is necessary when capital mobility is increased in China. It will also produce significant benefits for China's economic growth. Although it is the essential part of China's exchange rate system reform, the progress should be orderly and properly sequenced and linked carefully to the strengthening of the domestic financial system so that the precondition of a sound and well-supervised financial sector and appropriate macroeconomics policies is met. As witnessed during the recent Asian crisis, prompt liberalization of the capital account would pose significant problems for macroeconomics stability and the exchange regime.

Given other countries' experiences and China's current situation, the proper sequence of liberalization process should be to liberalize the capital flows in long-term first, and then to liberalize short-term capital flows. Direct investment capital flows should be liberalized followed by indirect investment flows. Securities based investment should be liberalized before bank lending based investment. Restrictions on foreign loans to domestic residents should be lifted before restrictions on domestic lending to foreigners are. Finally, financial institutions should have restrictions removed before the restrictions are removed from non-financial institutions and individuals. In sum, items that have no effect on the current account balance should be liberalized first while items that affect the current account balance and may bring frequent capital flows should be liberalized gradually and prudently.

exchange regime choice, specific theories on developing countries' cases and lessons from recent crisis with China's specific situations, we find out that although tightly managed floating had made great contributions to the restoration of Asian crisis as well as China's economic reform, China's future interests lies in an exchange regime with more flexibility. The optimal strategy calls for an active preparation for the regime shift. Steps toward a more flexible exchange regime should be taken orderly and linked carefully to the strengthening of the domestic financial system and capital account liberalization so as to ensure the long-run success of the new exchange regime.

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