

EXTERNAL FINANCIAL LIBERALIZATION AND FOREIGN DEBT IN CHINA

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Abstract:

China has not been a large net capital importer during the reform period (1979 - present). This is surprising because economic theory predicts it should have been in light of it's low capital - labour ratio. One possible explanation with important policy implications is that foreign capital inflows may have been restricted due to the slow pace of external financial liberalization. The empirical analysis conducted in this paper lends support to this hypothesis. However, before policy makers in China can look upon external financial liberalization as a growth-inducing strategy, fiscal reform and greater levels of domestic financial liberalization are first needed.

1. INTRODUCTION

Earlier studies by Chai (1994) and Lardy (1995) showed that China has not been a large net capital importer during the reform period (1979 – present). This is a surprising finding because, according to economic theory, China should have been a large net capital importer in light of its low capital - labor ratio. It is a standard economic proposition that, *ceteris paribus*, the scarcer is one factor of production in relation to another, the higher its marginal productivity (Thirlwall, 1989, p.116). There are two possible distortions to the free flow of capital that could have led to this outcome. Firstly, repression of the domestic financial sector may have induced an artificially high outflow of Chinese capital abroad. Secondly, limited external financial liberalization (EFL) may have restricted the extent to which foreign capital has been able to enter China.

The first hypothesis has already received empirical support. Gunter (1996) and Sicular (1998), for example, documented extremely large volumes of capital flight exiting China. The second hypothesis, however, has received little research attention. In one exception, Wei (1996) argued that even though China became an important host country for foreign direct investment (FDI) during the 1980's, the volume incoming was still considerably less than that which could have been expected on the basis of the determinants of FDI. This finding suggested that there was still considerable room for further liberalization. During the early 1990's, controls over FDI were further relaxed to the extent that by mid-1990's, China was the recipient of more FDI than any other developing country (Lardy, 1995, p.1065). The sharp increase in FDI, however, was not mirrored by increased foreign debt inflows (Table 1). The hypothesis can therefore be advanced that foreign debt inflows have not experienced significant liberalization and this has restricted the overall extent to which foreign capital has been able to enter China. Investigating this hypothesis is important for two reasons. Firstly, if there is evidence that foreign debt inflows have been restricted, then one of the reasons that

China has not been a large net capital importer, as expected, would be better understood. Secondly, restricted foreign debt inflows imply that some potentially productive investments have gone without funding, to the detriment of China's economic development.

The structure of this paper is as follows. Section 2 provides a brief overview of the EFL that has taken place in China during the reform period with respect to FDI and foreign debt inflows. Section 3 then outlines two theoretical frameworks that are useful in guiding an empirical investigation into whether foreign debt inflows have been restricted. Section 4 then considers the empirical evidence surrounding this hypothesis. Section 5 draws policy implications and section 6 summarizes the findings.

2. LIBERALIZATION OF DIRECT INVESTMENT AND DEBT INFLOWS

Over the entire reform period, the most important category of foreign capital inflows has been FDI. While FDI lagged behind debt inflows during the 1980's, this situation was more than reversed during the 1990's (Table 1). Numerous elements of FDI liberalization can be noted. Firstly, the decision-making powers with respect to the screening and approval of FDI have increasingly been delegated away from the central authorities towards lower levels of government, particularly those located in coastal regions (Kueh, 1992, p.646). Official statistics show that by 1998, regional authorities were the controlling body for 99.6% of FDI (SSB, *CSY 1999*, p.599). Secondly, the Chinese authorities have relaxed ownership restrictions on FDI. Initially, most FDI entering China was confined to the form of joint venture enterprises. For example, during the period 1979-1983, wholly owned foreign enterprises accounted for only 3% of total FDI. By 1997, this share had grown to 36% (*ACFERT*, various years). Thirdly, FDI's have been permitted increased managerial autonomy over time. Chai (1998, p.156) stated that an FDI's authority was initially severely circumscribed with respect to input, output, pricing and financial decisions. Fourthly, the

Chinese authorities also began to use various positive incentives to attract FDI, particularly in the Special Economic Zones (SEZ's). Common incentives have included offering concessions on customs duties, industrial and commercial taxes, income tax and taxes on profit remittances (*ACFERT 1985*, p.404). They have also included reduced fees for land use, labor services and other public utilities (Chai, 1998, p.157). Finally, controls over the economic sectors in which FDI can be conducted have been relaxed. For example, in its bid to enter the World Trade Organization (WTO), China has begun to open up its formerly closed services sectors such as banking, retailing and telecommunications, along with major infrastructure activities for foreign investment (Chai, 1998, p.159).

In contrast to this considerable liberalization, controls over foreign debt inflows remain relatively tight. Foreign borrowing in China is classified either as plan or non-plan borrowing (IMF, *ERA 1998*, p.115). Plan borrowing is comprehensive in that it includes (1) borrowing by the government sector from foreign governments and international financial institutions; (2) external borrowing by Chinese financial institutions; (3) external borrowing by authorized Chinese enterprises; and (4) short-term trade credits over 3 months. Non-plan borrowing is limited to (1) borrowing by foreign-funded enterprises; and (2) borrowing from branches of foreign banks or jointly invested banks operating in China. The State Planning Commission is responsible for coordinating foreign borrowing for projects included in the annual and five-year plans. Project executing agencies (such as the Ministry of Finance, provincial governments, etc) propose projects to the State Planning Commission. The State Planning Commission reviews these projects and then recommends to the State Council the overall number of projects and the associated financing. Loans from foreign governments and international financial institutions require the clearance of the State Planning Commission and the approval of the State Council. All medium and long-term commercial borrowing abroad under the plan requires approval from the State Administration of Foreign Exchange (SAFE) and must be conducted through authorized Chinese financial institutions. The SAFE

permits institutions responsible for undertaking commercial borrowing to contract short-term loans up to specified limits without prior approval. The headquarters of the People's Bank of China (PBC) and SAFE are responsible for the examination and approval of all bonds issues abroad (*ACFB 1991*, EE, p.208; *1998*, p.61). The overwhelming majority of domestic institutions that have been permitted to issue bonds abroad during the reform period have been connected to the central government such as the Ministry of Finance and the Bank of China (*ACFB 1998*, EE, p.156).

Some decentralization in the control over foreign commercial loans occurred in 1991 with the issuance of regulations that authorized the local branches of the SAFE and PBC to be responsible for the actual examination, approval, supervision and administration of such loans (*ACFERT 1992/3*, p.202). Official statistics indicate that by 1996, regional authorities constituted the controlling body for 50.2% of total foreign loan inflows. This was up from just 7.4% in 1983. However, it should be noted that in response to the Asian crisis, the central government again tightened controls over foreign lending to the extent that in 1997, regional authorities were the controlling body for only 10.7% of total foreign loan inflows (*ACFERT*, various years).

Another aspect of EFL with respect to foreign debt inflows is that foreign banks have increasingly been permitted to establish operations directly in China. Initially, foreign banks were confined to the status of representative offices, which meant that they could not undertake activities directly related to generating a profit. They were also geographically confined to Beijing and the SEZ's (*ACFB 1992*, EE, p.235). Over time, these constraints have been gradually relaxed. Firstly, geographical restrictions have been relaxed and by year-end 1997 foreign financial institutions were located in 23 cities across China (PBC, *CFO 1998*, p.101). Secondly, 1987 regulations allowed foreign banks to begin increasing their business scope, enabling them to engage in profit making activities such as loans, deposits, portfolio

investment and guarantees (*ACFB 1992*, EE, p.240). However, their customer base was largely restricted to servicing foreign enterprises operating in China, while the servicing of Chinese enterprises and individuals through local RMB transactions remained prohibited (*ACFB 1993*, EE, p.29). By 1997, 543 representative offices of foreign banks had been established in China and the total loans of foreign-funded financial institutions had grown to US\$274.7 billion, compared with just US\$2.05 billion in 1991 (PBC, *CFO 1998*, p.101; *ACFB 1998*, EE, p.189). In December 1996, four foreign banks located in the Pudong district of Shanghai were permitted to engage in limited RMB business (*ACFB 1996*, EE, p.50). By 2000, two-dozen foreign banks were allowed to lend in RMB in Shanghai and Shenzhen. However, their RMB loans totaled just RMB 1 billion, in large part because they were banned from accepting retail deposits and their ability to accept commercial deposits also remained highly circumscribed (*The Economist*, April 8th, 2000).

3. THEORETICAL FRAMEWORK

In this section two theoretical frameworks are outlined that are useful in guiding an empirical investigation into whether foreign debt inflows have been restricted. The first seeks to compare a country's actual level of foreign debt with some estimated optimal level of foreign debt. If actual foreign debt is less than the optimal value, this under-borrowing would suggest that foreign inflows have been restricted. The optimization approach typically seeks to determine how much a country should borrow based on the inter-temporal maximization of a social welfare function. Despite the strong theoretical underpinnings of the optimization approach, it has rarely been used in practice to determine under-borrowing / over-borrowing because many parameters in these models are generally not directly observable or difficult to estimate empirically.

Table 1. Foreign Capital in China

| Year | FDI | Foreign Loans | Bonds |
|------|---------|---------------|--------|
| 1982 | 429.9 | 1783.1 | |
| 1983 | 635.2 | 1064.7 | |
| 1984 | 1257.6 | 1161.5 | 124.2 |
| 1985 | 1658.5 | 1743.6 | 762.4 |
| 1986 | 1874.9 | 3855.7 | 1158.9 |
| 1987 | 2313.5 | 4565.6 | 1239.4 |
| 1988 | 3193.7 | 5625.1 | 861.6 |
| 1989 | 3392.6 | 6144.6 | 141.1 |
| 1990 | 3487.1 | 6531.6 | 3.0 |
| 1991 | 4366.3 | 6779.1 | |
| 1992 | 10007.5 | 6640.1 | |
| 1993 | 27515.0 | 9800.7 | |
| 1994 | 33766.5 | 7913.0 | |
| 1995 | 37520.5 | 9544.0 | |
| 1996 | 41725.5 | 9270.0 | |
| 1997 | 45257.0 | 9614.0 | 2407.0 |
| 1998 | 45462.8 | 10000.0 | 1000.0 |

Notes:

1. The unit is \$US million.
2. Official statistics classify China's usage of foreign capital according the value of contracts signed during a given year and by the amount actually utilized during a given year. All data in the above table are utilized values.
3. Official statistics place funds raised through bonds and shares under the category of foreign loans. This is not conventional and hence, wherever possible, the value of such funds has been subtracted from the official total for foreign loans. Unfortunately, the volume of funds raised through bonds and shares is not separately listed in 1982 and 1983. Therefore, the figure for foreign loans for these years in the table above is inclusive of that raised through bonds and shares.
4. Official statistics do not disaggregate the volume of funds raised through bonds and shares until 1997. However, given that share purchases by foreigners were not permitted until 1991, all foreign funds must have been raised through bonds issues.
5. A blank space signifies that data was unavailable.

Sources:

1. *ACFERT*, various years.
2. SSB, *CSY 1999*, p.595.

This paper, however, applies a model derived by Gemmell (1988), which seeks to overcome these traditional shortcomings through only including those variables that can be empirically estimated or are readily available. Gemmell's model is based on a simple, two-period debt model and a country is deemed to be maximizing a social utility function (U) of the form $U = C_1^\alpha + C_2^{1-\alpha}$, where α is a parameter that depicts a society's relative preference for current (C_1) and future consumption (C_2). On the basis of this utility function, a country's optimal level of borrowing relative to GDP, \bar{B} , is derived as being equal to

$$\bar{B} = \frac{\phi\{\gamma(\pi_d + \pi_f) - r\}}{e\{(1+r)(1+\phi) - \phi\gamma\pi_f\}} \quad (1)$$

The parameter ϕ in equation (1) is calculated as being equal to $\frac{1-\alpha}{\alpha}$. Therefore, the greater the ϕ , the greater the preference for future consumption. If $\phi = 1$, this would indicate that a society had an equal preference for current and future consumption. The parameter γ is the marginal product of capital, $\frac{\Delta Y}{\Delta K} \equiv \frac{\delta}{\pi}$, where δ is the growth rate of domestic resources (real GDP) and π is the investment / GDP ratio. The parameter e is the shadow exchange rate. The parameter π_d is the proportion of domestic resources devoted to investment while π_f is the proportion of foreign borrowing devoted to investment. The parameter r is the real interest rate on foreign borrowing.

Another theoretical framework that is useful for determining whether a country has under-borrowed / over-borrowed is based on notions of debt sustainability. This approach tracks changes in a country's foreign debt obligations, along with the capacity to repay those obligations, and so aims to consider whether foreign debt has become more or less sustainable (McDonald, 1982, p.603). While the sustainability approach has the disadvantage

of not actually specifying a particular level of debt that should be targeted, it can serve as a useful complement to optimizing approaches in determining whether a country has under-borrowed or over-borrowed. For example, given that a country such as China is likely to have a vast need for foreign capital (Lardy, 1998, p.187), if actual foreign debt increased at a slower / faster rate than the capacity to repay debt, then this would be indicative of under-borrowing / over-borrowing. The sustainability approach has also been far more widely utilized by policy makers because the required information is readily available.

The theoretical conditions for sustainable borrowing have been derived in terms of the familiar two-gap model by Fishlow (1986, p.221) and Gillis, et al. (1996, p.414). The two-gap model states that foreign capital inflows can promote economic development by allowing a country to invest more than it saves, thereby filling a savings-investment gap, or import more than it exports, thereby filling a foreign exchange gap. If the foreign exchange gap is binding, then foreign capital inflows promote growth by increasing the amount of imports. In any period, the increase in debt due to this inflow is equal to

$$\frac{dD}{dt} = iD + M - E \quad (2)$$

where D is the stock of debt at any time, $\frac{dD}{dt}$ is the change in the stock of debt with respect to time, i is the average interest rate on foreign capital inflows, M is the value of imports and E is the value of exports. The differential equation (2) can be solved to show that under a foreign exchange gap, the long run equilibrium ratio of debt to exports will equal

$$\frac{D}{E} = \frac{a}{(g_E - i)} \quad (3)$$

where a is the ratio of the foreign exchange gap to exports, $\frac{M-E}{E}$, and g_E is the growth rate of exports. Equation (3) states that for a given foreign exchange gap, there is an equilibrium ratio of debt to exports that can be sustained. If export growth, g_E is greater than the interest rate i , then the ratio of debt to exports will fall. The key then to sustaining debt under a foreign exchange gap is to ensure that foreign capital inflows are put to uses that either directly or indirectly boost exports.

If it is the savings-investment gap that is binding, then foreign capital inflows boost growth by increasing the amount of investment. In this case, in any period the increase in debt due to this inflow is equal to

$$\frac{dD}{dt} = iD + I - S_d = iD + vY - sY = iD + (v-s)Y \quad (4)$$

where Y is GNP, v is the investment share of GNP, and s is the propensity to save out of GNP. Equation (4) can be solved to show that under a savings-investment gap, the long run equilibrium ratio of debt to GNP will be equal to

$$\frac{D}{Y} = \frac{(v-s)}{(g_Y - i)} \quad (5)$$

Equation (5) states that for a given savings-investment gap, there is an equilibrium ratio of debt to GDP that can be sustained. It also shows that the key to sustaining debt under a savings-investment gap is to ensure that foreign capital inflows are directed towards activities that are productive enough to ensure that the growth rate of GNP, g_Y will at least be equal to i .

4. EMPIRICAL INVESTIGATION

Firstly, by using an optimization framework, the parameters contained in equation (1) can be estimated in order to make an assessment of whether China has under-borrowed / over-borrowed from abroad. There are no direct data available for the parameter ϕ (Table 2, column 1). However, given that during the reform period China has consistently exhibited one of the highest savings rates in the world, it can be assessed that there is at least some preference for future consumption. Therefore, ϕ is assigned a value of 1.5, which implies that α in the underlying social utility function is equal to 0.4. The marginal product of capital γ (Table 2, column 2) is estimated as described in the previous section by dividing the growth rate of real GDP by the rate of investment (SSB, *CSY 1999*, pp.55,67). The proportion of domestic resources devoted to investment π_d is taken to be the rate of investment (Table 2, column 3) (SSB, *CSY 1999*, p.67).

There are also no direct data available on the proportion of foreign borrowing that is invested π_f (Table 2, column 4). However, an attempt to estimate this parameter was made in the following manner. Official fixed investment data is broken down into the various sources through which it was funded, including foreign investment (SSB, *CSY 1999*, p. 185). This is broadly defined to include all foreign investment types such as direct investment, loans, bonds and shares (SSB, *CSY 1999*, p.242). For the purposes of this empirical exercise, it is the proportion of fixed investment that was funded through foreign borrowing (ie. predominantly loans) that needs to be isolated. Therefore, it is necessary to subtract the proportion that has been funded through non-debt creating inflows (ie. predominantly direct investment). A rough estimate of the relative importance of foreign borrowing and non-debt creating inflows can be derived from the data that describes the amount of foreign loans and direct investment actually utilized (*ACFERT*, various years). A complete data series for bonds

and shares is unavailable and hence these types of foreign investment were excluded from the estimation procedure. The parameter π_f can then be calculated by dividing the estimated amount of fixed investment funded through foreign borrowing by the amount of foreign borrowing actually undertaken (World Bank, *GDF*, various years). In a few years, the estimated amount of fixed investment funded through foreign borrowing was actually greater than the official total amount of foreign borrowing undertaken. Therefore, in these years π_f was assigned the maximum theoretically allowable value of 1. There are also no data available on the relative size of utilized foreign loans and direct investment in 1981. Therefore, it was assumed that the 1981 ratio was equal to that which prevailed in 1982 (*ACFERT 1984*, p.1095). The data generated by this exercise appear plausible. They suggest that during the earlier stages of the reform period the overwhelming majority of foreign borrowing was used for investment purposes. This is to be expected in light of tight central government controls and a high proportion of official creditors. It also suggests that the proportion was high in 1989 and 1998. These were two periods of known re-centralization in the control of foreign loans, firstly in response to rampant inflation and more recently due to the Asian financial crisis. The data also indicates that π_f fell during the early 1990's as the control over foreign loans was decentralized.

Following from Gemmell (1988, p.207), the real interest rate on foreign borrowing r (Table 2, column 5) is estimated by subtracting the percentage change in the dollar price of China's exports from the average nominal interest rate specified on debt contracts. The average nominal interest rate is readily obtainable (World Bank, *GDF*, various years). In the absence of an official export price index, one must be constructed using export quantity and value

Table 2. Data and Estimates of Optimal Foreign Borrowing versus China's Actual Foreign Borrowing

| Year | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|------|--------|----------|---------|---------|--------|--------|-----------|-------|
| | ϕ | γ | π_d | π_f | r | e | \bar{B} | B |
| 1981 | 1.5 | 0.160 | 0.325 | 1.00 | -0.086 | 1.9089 | 0.115 | 0.005 |
| 1982 | 1.5 | 0.274 | 0.332 | 0.91 | 0.103 | 2.0860 | 0.072 | 0.010 |
| 1983 | 1.5 | 0.322 | 0.338 | 1.00 | 0.181 | 2.1431 | 0.071 | 0.004 |
| 1984 | 1.5 | 0.442 | 0.344 | 0.59 | 0.067 | 3.0897 | 0.074 | 0.008 |
| 1985 | 1.5 | 0.357 | 0.378 | 0.34 | 0.145 | 3.5325 | 0.018 | 0.016 |
| 1986 | 1.5 | 0.233 | 0.377 | 0.38 | 0.183 | 3.9656 | -0.001 | 0.025 |
| 1987 | 1.5 | 0.321 | 0.361 | 0.28 | -0.044 | 3.9352 | 0.042 | 0.046 |
| 1988 | 1.5 | 0.307 | 0.368 | 0.67 | 0.067 | 3.9051 | 0.041 | 0.025 |
| 1989 | 1.5 | 0.114 | 0.360 | 1.00 | 0.023 | 4.9700 | 0.017 | 0.008 |
| 1990 | 1.5 | 0.110 | 0.347 | 0.50 | -0.029 | 5.4332 | 0.014 | 0.023 |
| 1991 | 1.5 | 0.264 | 0.348 | 0.74 | 0.084 | 5.6307 | 0.022 | 0.013 |
| 1992 | 1.5 | 0.392 | 0.362 | 0.28 | 0.092 | 5.9329 | 0.016 | 0.029 |
| 1993 | 1.5 | 0.312 | 0.433 | 0.32 | 0.057 | 5.9637 | 0.018 | 0.031 |
| 1994 | 1.5 | 0.306 | 0.412 | 0.27 | -0.102 | 8.6310 | 0.025 | 0.027 |
| 1995 | 1.5 | 0.257 | 0.408 | 0.31 | 0.067 | 8.3514 | 0.008 | 0.016 |
| 1996 | 1.5 | 0.242 | 0.396 | 0.55 | -0.043 | 8.3142 | 0.022 | 0.013 |
| 1997 | 1.5 | 0.230 | 0.382 | 0.33 | 0.076 | 8.2898 | 0.006 | 0.020 |
| 1998 | 1.5 | 0.205 | 0.381 | 0.72 | 0.110 | 8.2790 | 0.008 | 0.008 |

Source:

1. see text.

data. To make such a task manageable, price changes were only calculated for a basket of goods that have represented China's major exports. The basket includes aquatic products, cereals (grain), vegetables, coal, crude oil, rolled steel, cotton cloth, garments and shoes. A time series of the quantity and value of these goods exported are found in China's customs statistics (SSO, 1990, pp.444-453; SSB, *CSY*, various years). Quantity data for shoes is not available for 1980, or for garments and shoes in 1997 and 1998, and hence these goods have been omitted from the basket in the relevant years.

The shadow exchange rate e (Table 2, column 6) is sourced from calculations undertaken by Chou & Shih (1998, p.173). These authors estimated the shadow exchange rate over the period 1978 – 1994 and showed that by the 1990's, the difference between the estimated shadow exchange rate and the official exchange rate was minimal. Therefore, over the period 1995-1998, e is assumed to equal the official exchange rate (IMF, *IFS*, various issues). On the basis of these parameter estimates, optimal borrowing \bar{B} is calculated using equation (1) and presented in column 7. China's actual borrowing as a percentage of GNP, B is given in column 8 (World Bank, *GDF*, various years).

While results based on optimal borrowing models should be read with caution due to the need to estimate and assume values for some data, the results are indicative of under-borrowing. The estimated optimal borrowing levels averaged 3.3% of GDP while actual borrowing levels averaged just 1.8% for the entire period. Therefore, on the whole, the results are supportive of the hypothesis that limited EFL has restricted the extent to which foreign debt inflows have been able to enter China and at least partly help to explain why China has not been a large net capital importer. It also should be noted that the extent of under-borrowing appears to have varied over time. It was at its most profuse during the earlier stages of the reform period before narrowing significantly from 1985 onwards. In two periods, 1986-87 and 1992-95, China's actual foreign borrowing exceeded optimal borrowing levels. Therefore, the results

also indicate that other factors, such as domestic financial repression, may have contributed to China not being a large net capital importer, particularly in more recent years.

To compliment the above analysis, data necessary for determining the sustainability of China's foreign debt during the reform period is presented in Table 3. The data shows that g_Y , g_E and i have averaged 7.8%, 15.1% and 6.9% respectively. Thus, the conditions for sustainable borrowing have been more than met. This result is supportive of the results obtained using the optimization approach and suggests that, on the whole, China has under-borrowed from abroad. The fact that $g_Y, g_E > i$ has meant that China has an extremely low level of external debt by international standards. For example, in 1998 the ratio of China's debt to exports and GNP was 72.4% and 16.4% respectively. By way of comparison with other large developing countries, the same ratios for Brazil were 358.9% and 30.6% and for India were 167.2% and 23.0% (World Bank, *GDF 2000*, pp.122,162,290). While there are no firm critical levels that constitute dangerous debt levels, on the basis of country experience with debt servicing the World Bank has established some rough guidelines. If a country has either a ratio of present value of debt service to GNP (PV/Y) of greater than 80%, or if the ratio of the present value of debt service to exports (PV/E) is greater than 220%, it is classified as severely indebted. If $48\% < PV/Y < 80\%$ or $132\% < PV/E < 220\%$, then the country is classified as moderately indebted. If $PV/Y < 48\%$ and $PV/E < 132\%$ then the country is assigned the most creditworthy ranking of less indebted (World Bank, *GDF 1996*, p.42). Over the period 1996-1998, PV/Y and PV/E in China averaged just 15% and 67% respectively (World Bank, *GDF 2000*, p.147).

Table 3. The Sustainability of China's Foreign Debt

| Year | g_Y | g_E | i |
|------|-------|-------|------|
| 1980 | 16.1 | 32.7 | 10.3 |
| 1981 | -5.4 | 21.5 | 8.2 |
| 1982 | -1.9 | 1.4 | 7.0 |
| 1983 | 7.4 | -0.4 | 7.2 |
| 1984 | 2.6 | 17.4 | 7.5 |
| 1985 | -0.9 | 4.8 | 7.5 |
| 1986 | -3.2 | 13.1 | 6.4 |
| 1987 | 8.8 | 27.5 | 6.6 |
| 1988 | 24.8 | 20.5 | 7.2 |
| 1989 | 12.0 | 10.6 | 7.3 |
| 1990 | -13.6 | 18.2 | 7.5 |
| 1991 | 4.8 | 15.7 | 6.1 |
| 1992 | 18.9 | 18.2 | 6.2 |
| 1993 | 24.4 | 8.0 | 5.5 |
| 1994 | -9.7 | 31.9 | 5.5 |
| 1995 | 29.1 | 22.9 | 6.5 |
| 1996 | 16.6 | 1.5 | 6.6 |
| 1997 | 10.0 | 21.0 | 6.5 |
| 1998 | 6.8 | 0.5 | 6.2 |

Source:

1. World Bank, *GDF*, various years.

5. POLICY IMPLICATIONS

The previous section revealed evidence of China under-borrowing from abroad. This implies that the slow pace of EFL with respect to foreign debt inflows has meant that some potentially productive investment projects have not been able to attract funding. However, it does not automatically mean that China's economic development would be best served by immediately embarking on an accelerated program of EFL. This is because the sequencing of economic reforms in a developing, transitional economy such as China plays an important role in determining whether the development impact of EFL will be a positive one (Eichengreen, et al., 1998, p.10). The first prerequisite necessary for successful EFL frequently cited in the literature is fiscal reform. According to McKinnon (1993, p.8), fiscal reform is a necessary prerequisite for all other reforms in a transitional economy. If a government cannot secure fiscal integrity, it must finance revenue shortfalls through printing money and/or compelling state banks to engage in rapid credit creation. This fuels inflation, which has well-known negative implications for macroeconomic stability and microeconomic efficiency. The most recently conducted comprehensive study of China's fiscal system indicates that much work still remains to be done in the area of fiscal reform (Wong, et al., 1995). China has still not been able to reverse the declining trend in government revenue as a percentage of GDP, which fell from 28.4% in 1979 to just 12.4% in 1998 (SSB, *CSY 1999*, p.266).

A second prerequisite reform frequently mentioned in the literature is that domestic financial liberalization (DFL) should be undertaken prior to EFL (McKinnon, 1993, p.9). There are several reasons for this. Firstly, if domestic interest rates are still repressed at below equilibrium levels, EFL can lead to a perverse capital outflow as domestic surplus units react to artificially low returns at home and seek higher returns abroad. Secondly, DFL exposes the

prudential framework surrounding a country's financial markets and institutions to testing in a market-driven environment and signals whether improvements are necessary. Without an adequate prudential framework, liberalized financial systems become vulnerable to the effects of market failure. Indeed, numerous authors have cited financial liberalization outpacing the capacity of prudential frameworks as a key factor underlying the Asian financial crisis (Corsetti, et al., 1999, p.1234). If the prudential framework of a country cannot ensure the prudent and efficient use of domestic savings, post-DFL, then it will have little hope with respect to foreign savings, post-EFL. McKinnon & Pill (1996, p.22) note that EFL poses numerous challenges for the prudential framework over and above those posed by DFL. These include the exchange rate risk on international borrowing and the danger that foreign lenders may seek to take advantage of the fact that the domestic government generally guarantees the liabilities of domestic financial institutions. Thirdly, DFL exposes domestic financial institutions to competitive pressures and forces them to change their behavior accordingly. Without this stepping-stone, they would unlikely be able to deal with the rigors of international competition bought on by EFL. This is especially the case for financial institutions in transitional economies, where staff have traditionally been concerned with simply implementing a centrally-promulgated credit plan and have acquired few technical skills and experience in areas such as risk assessment, risk management and profit maximization. Fourthly, if the government continues to intervene in the credit allocation and pricing decisions of domestic financial institutions, they will be unable to effectively compete with foreign financial institutions. Although significant progress has been made in China with respect to DFL, several key aspects remain unresolved (Laurenceson & Chai, 1998; Lardy, 1998). For one, the government continues to intervene in the operations of state banks and they have yet to be restructured to the point where they could effectively compete with foreign financial institutions. Secondly, the adequacy of China's prudential framework to deal with a market driven financial system is also questionable. The recently well-publicized troubles experienced by many of China's non-bank financial institutions are a case in point.

A third reform that may be considered necessary before a country undertakes EFL is the adoption of a more flexible exchange rate system. It should be noted, however, that the necessity of this reform is not universally accepted. IMF (1994, p.3), for example, concludes that the type of exchange rate regime appears not to be a critical factor in successfully conducting capital account liberalization. Nevertheless, this issue has attracted increased attention in light of the Asian crisis, where several of the crisis economies conducted EFL in the presence of a fixed exchange rate regime. The fundamental problem with removing capital controls under a fixed exchange rate regime is that monetary independence is lost, which can result in large fluctuations in output. While the forces of demand and supply nominally determine the exchange rate in China, in reality the system offers limited flexibility. For example, the daily movement of the RMB against the US dollar is limited to 0.3% on either side of the reference rate announced by the PBC at the start of each day's trading (IMF, *ERA 1998*, p.211). The central bank and state banks regularly intervene in the foreign currency market to maintain stability. Tsang (1997, p.241) reports on Chinese research that estimated the Bank of China was responsible for 70-80% of the foreign currency sold in the inter-bank market for foreign exchange, while the PBC was responsible for 70-80% of the foreign currency bought.

6. CONCLUSION

The fact that China has not been a large net capital importer during the reform period is curious in light of its low capital-labor ratio. It was hypothesized that one of the factors that may have led to this outcome is the limited extent of EFL. A review of the EFL that has been conducted in China during the reform period showed that while significant liberalization has occurred with respect to FDI, foreign debt inflows are still subject to numerous restrictions. The results of the empirical investigations conducted in this paper were supportive of the

hypothesis that such restrictions have limited the extent to which foreign capital has been able to enter China. This finding implied that some potentially productive investments have gone without funding. However, the policy implication of this finding is not immediate, accelerated EFL. The broader EFL literature highlights that liberalization will only promote economic development if numerous other reforms have first been conducted. In China, the most pressing appear to be fiscal reform and DFL.

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