People's Republic of China's Round-Tripping FDI: Scale, Causes and Implications

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1. Introduction

There is no doubt that part of People's Republic of China (PRC)'s FDI inflows belongs to the return of the Chinese capital that has gone aboard escaping the foreign exchange control. The World Bank and other agencies and experts have estimated that the scale of this round tripping could be as high as a quarter of the total FDI inflows into PRC (see World Bank 2002). But the World Bank did not provide clear definition on round tripping FDI and did not explain its estimation method. This paper attempts to fill this gap in the literature by providing an estimation of the overall scale of PRC's round tripping FDI with detailed description on the methods and assumptions. The paper also clarifies a few conceptual issues related to the different types of round tripping FDI and their measurement problems.

A useful study of PRC's round tripping FDI needs to have both the breath and depth that can capture and piece together the underlying real picture of the unique pattern of capital flows from the incomplete and imperfect statistics and existing theories. Because of the inconsistence and fragmentation of FDI statistics across different sources (for example, the Mainland PRC, Hong Kong, China SAR, and OECD countries) and the intrinsic secrecy nature of the round-tripping capital, it is almost impossible to obtain a direct and accurate measure on the scale of the round-tripping FDI. Hence, the results here should be viewed very much like a sketch of a suspect put forward by a detective who has attempted to piece together the available information about the suspect into a recognizable sketch. This rough sketch however could provide a very useful framework for more informed debates and research about many related policy issues.

The issue of PRC's round tripping FDI is important for policy makers in PRC, other countries as well as various international organizations. The prevailing view on PRC's FDI is that PRC attracted too much of the global FDI flows at the costs of other developing economies. Hence, PRC's currency should be revaluated to restore the international balance in capital flows and competitiveness. The findings of this study, however, do not seem to support this prevailing view. The estimations here indicate that the round-tripping FDI in PRC are likely in the range of 30% to 50%, much higher than the previous estimation of about a quarter by the World Bank.

The evidences suggest that a large part of the capital originally created in PRC has managed to go abroad and has stayed aboard waiting for opportunities to return back to PRC. On average the round tripping FDI, e.g. the returning Chinese capital, is about 20% to 30% of the capital flight of various estimations. The pattern of capital creation and movement uncovered here suggests that competition for FDI flows are not a zero-sum game. The FDI inflows are not simply a fix sum to be competed away among different countries. Instead, PRC's experiences have shown that FDI inflows are probably endogenously determined by the capacity of the hosting countries to create new capital. When a developing economy like PRC is creating new capital, a significant part of the new capital is likely to find its way abroad through mis-invoicing in international trade, smuggling, and other channels of capital flight since the people who are creating the new capital have strong incentives to diversify domestic risks and to seek better protection of property rights. The accumulated capital flight then forms the base for sustained round tripping FDI back home when the opportunities to make profits and create new capital at home continue to exist.

In the case of PRC, Hong Kong, China SAR plays an important role in each of the three stages of capital's journey: (1) the original creation of new capital in PRC, (2) the capital flight out of PRC and (3) the round tripping FDI back to PRC. In the past two decades, about 40% to 60% of PRC's FDI inflows were from Hong Kong, China

according to PRC's official report. However about half of Hong Kong, China's FDI to PRC as reported by PRC can not be verified or confirmed from the related statistics collected in Hong Kong, China. Clearly Hong Kong, China is crucial in understanding PRC's round tripping capital flows.

Hong Kong, China is not alone in facilitating capital creation, capital flight, and the return of flight capital through round tripping FDI. The offshore financial centres, such as British Virgin Islands, Bermuda, and Cayman Islands, have been playing more and more important role, particularly in facilitating legitimate round tripping capital flows for the purpose of listing the Mainland PRC companies in Hong Kong, China and other overseas stock markets. The U.S., EU and other Asian economies are also important in facilitating capital flows across the Chinese borders through their close trade and investment relations with PRC.

The high level of round tripping FDI in PRC as shown in this study should not be interpreted as a problem of ineffective regulation in PRC since a large part of the round tripping capital is actually creating new value for capital as it moves across borders to get better financial services in Hong Kong, China or other overseas financial centres. This is very much similar to the substance of global FDI activities, including cross-border merges and acquisitions and cross-border debt financing. PRC's weak domestic financial system means that the FDI has effectively become an important channel of project financing which is separated from the domestic financial system but is closely related to the external financial systems in Hong Kong, China and other developed economies. As PRC relaxes its capital control in the future, it is expected that the part of round tripping with the purpose of getting around the government regulation so as to enjoy preferential tax policy or better protection of property rights would decline while the part of round tripping with the purpose of getting better financial services such as listing in Hong Kong, China's stock markets would rise. On the whole, PRC's round tripping FDI is more of a statistics interpretation problem than a substantive constraint or drawback for PRC and the global economy.

Section 2 of this paper will review briefly the existing literature and data sources related to round-tripping FDI in PRC. Section 3 will provide some background information on the recent development in PRC and global FDI flows. This section is useful in putting PRC's FDI into a proper international and comparative perspective and is highly relevant for the later discussion on the causes, determinants and implications of PRC's round tripping FDI. Section 4 examines the patterns of FDI flows in PRC, focusing particularly on those issues related to identifying the nature and scale of round tripping FDI in PRC. Section 5 discusses briefly the incentives, causes, determinants of the round tripping FDI. Based on the discussions in the previous sections, section 6 provides a method of estimating the scale of PRC's round tripping FDI based on the gaps in reported FDI statistics by PRC and the source region. Section 7 concludes the paper by discussing the policy implications.

2. The Existing Literature and Statistics

On round tripping the most recent and high profile study is the one by the World Bank, published in its "Global Development Finance 2002". The World Bank used a separate box with the title "Round-tripping of capital flows between PRC and Hong Kong, China" to highlight the importance of the round tripping FDI in PRC (see Box 2.3 on page 41 of World Bank 2002). The box contains a table and a graph. The table shows Hong Kong, China's FDI to PRC compared to PRC's total FDI inflow is as high as 50% in 1996, 42% in 1998, 40% in 1999, and 38% in 2000. The graph

shows Hong Kong, China's annual flow of FDI to PRC follows closely PRC's net errors and omissions in its Balance and Payment. Since the net errors and omissions term is usually regarded as a proxy for capital flight. The graph gives the impression that PRC's capital flight have come back to PRC by round tripping and in the form of Hong Kong, China's FDI to PRC.

The World Bank box article cited previous research (Lardy 1995, p. 1067; Harrold and Lal 1993, p.24) which estimated the scale of round tripping to be around one quarter of the total FDI. Then the box article concluded that the extent of this round tripping may have increased in the recent years referring to the box table and graph. Clearly the World Bank box article did not attempt to give a detailed estimation on the scale of round tripping. But many researchers and commentators have used the number 20% to 30% as a rough gauge on the scale of PRC's round tripping FDI.

Although a number of previous researches highlighted the round tripping issue but the discussions focused on capital flight. (see for example, Sicular 1998, Adams 1993, Gunter 1996, Lardy 1995, Harrold and Lall 1993). Yasheng Huang in his 2003 book on "Selling China: FDI during the Reform Era" spent a whole section on round tripping FDI (see page 35 to 41) but his focus was on the implications without attempting to estimate the scale of the round tripping FDI. He is concerned about PRC's attracting too much FDI without using its own high and cheap savings first.

In PRC, a number of studies by local scholars on capital flights were published and they are important bases for studying the channels of capital flight and round-tripping (see for example articles listed in the Chinese references section).

For our current study, the most important source is the newly revamped calculation of Hong Kong, China's Balance of Payment statistics by the Hong Kong, China government statistics division. In recent years the Hong Kong, China government has put a lot of resources in estimating the statistics on external direct investment by implementing firm-level surveys. This study draws heavily on this source. PRC's Balance of Payment and FDI statistics are examined and compared with Hong Kong, China's to develop a useful framework on estimating the scale of PRC's round tripping FDI.

The United Nations Conference on Trade and Development provides extensive FDI statistics at both the aggregate and disaggregate level. This is the major data source that allows this study to check the FDI flows into PRC as reported by source countries. Unfortunately, many of PRC's FDI source countries did not provide detailed statistics. Hence, our study can only explain about 70% of PRC's FDI with independent source country statistics.

The international setting of PRC's FDI also needs to be examined, particularly in relation to cross-border capital flows other than the FDI flows. This is because PRC's FDI is in a way a substitute for debt and portfolio financing (see McCauley 2002 and discussion on Hong Kong, China IPOs in section 6).

The US Treasury database on cross-border capital flows is also very useful in seeing PRC's capital outflows through the debt and equity markets. In particular, PRC has increased its purchases of USD bonds dramatically through both official and non-official channels. This can be regarded as a hedging strategy against large FDI inflows. It also reflects the role of cross-border capital flows in the protection of property rights. The Chinese government is protecting the property rights of foreign investors through improved business environments in PRC while the U.S.

government is protecting the property rights of the Chinese investors in the U.S. bond markets.

The article by Frank R Gunter (Gunter 2004) provides detailed estimation of PRC's capital flight over the period 1984-2001 based on two standard approaches: the balance of payment measure pioneered by Cuddington 1986 and the residual measure used by BIS and World Bank. Gunter 2002 made a few important adjustment to the standard approaches by adjusting for the mis-invoicing, legitimate domestic foreign exchange banking assets, and gaps in reported bank debts by PRC and BIS reporting institutions. His comprehensive and recent estimation on PRC's capital flight provides a useful benchmark for us to compare our estimation of round tripping FDI with his estimation of capital flight.

3. Round Tripping FDI in Global Context

Global FDI to developing economies have been driven by profit opportunities as well as by the reduction of physical and institutional barriers to cross-borer capital mobility. The improvement in transportation and communication reduced the physical barriers while reforms in developing countries such as PRC led to new profit opportunities. Since the early 1980s, PRC emerged as a major global development frontier. The barriers to foreign trade and investment in PRC have declined steadily since, leading to PRC's accession to the World Trade Organization in late 2001. By the end of 2002, only a year after joining the WTO, PRC overtook the U.S. in FDI inflows, becoming the most attractive FDI destinations in the world and received $52.7 billion in FDI.

The dramatic achievement by PRC seems to suggest that today's global economy is unprecedented in terms of opening and of the amount of FDI into developing countries. However, foreign capital flows into developing countries today are far below historical record achieved before the World War I. Gross value of foreign capital stock in developing countries peaked at 32.4% in 1914 but dropped to 4.4% in 1950 and recovered only to 10.9% by 1973 and 21.7% by 1998 (Maddison 2001, page 128). Hence, in spite of and market-oriented reform and technological advances during the last century, the world today is less open for capital flows to less developed countries than one hundred years ago.

This conclusion seems easier to accept if we regard capital flows to the developing economies as endogenously determined, depending on the capacity of the developing countries to create new capital in their home country. The more the developing countries are able to create new capital, the more income the developed economies will get from developing economies, and the more FDI from developed economies are likely to flow to developing economies. This seems to be the case before the World War I when British and other empires were deriving large incomes from their colonies and then re-invested part of these incomes back to their colonies. These sorts of foreign capital flows could be regarded as round tripping FDI in a broad sense and they are similar to what is happening now in PRC.

Capital flows among developed countries are much freer than between developed and developing countries because of better protection of property rights and less capital control in the developed economies. From 1989 to 1998, Japan's holding of net foreign assets increased from $294 billion to $1,153 billion while the U.S. holding of net foreign liabilities jumped from $49 billion to $1,537 billion (Maddison 2001, page 137). Clearly Japan has exported a large amount of capital to the U.S. in search of better risk-adjusted return and in preparation for its aging population, even when the policy environments in Japan, such as the volatility of exchange rate and

the secular appreciation of yen, have not been favourable to Japanese investment in foreign assets.

Similar incentives for risk diversification should also exist for the Chinese capital. But due to exchange control the Chinese capital outflows have been artificially depressed and can only find their way out in the form of capital flight, e.g. through illegitimate channels such as mis-invoicing of exports and imports and smuggling etc. As we will discuss in the later sections, the scale of capital flight from PRC has been very large, indicating that a lot of new capital has been created in PRC during the last decade. This flight capital then forms the base for some of the FDI flows into PRC, or the so called round-tripping FDI. If we compare PRC's present conditions with historical experiences before the World War I, we should not be surprised by the rapid growth of FDI or round tripping FDI into PRC. The driving force behind the FDI is fundamentally the capacity of the receiving countries in creating profits and new capital. History and PRC's present experiences do not support the view that there is a level of fixed amount of FDI capital to be allocated or competed away among the developing countries. FDI is not a zero sum game!

Foreign invested enterprises in PRC have contributed to more than half of PRC's exports. PRC has been generating current account surplus since 1994 (see Table 1). As current account surplus simply means net savings or net export of capital, PRC is taking in FDI on the one hand and exporting capital to capital-rich economies like the United States on the other hand. How to reconcile these inconsistent patterns of capital flows? One way to understand these is to recognize that PRC has been creating a lot of new profits and new capital and some of the FDI into PRC are either Chinese flight capital returning home or foreign investors' incomes from PRC investing back to PRC. Since not all capital originally created in PRC went back to PRC, some of them have stayed aboard or "exported" aboard as reflected in PRC's current account surplus.

Most of global FDI, especially FDI among developed countries, is in the form of mergers & acquisitions rather than through green-field investment. In 2001, M&A amounted to as much as 80% of global FDI. Among all the M&A in 2001, 83.5% conducted in the developed countries, 31.1% in U.S. alone and only 5.8% in Asia and the Pacific region. But cross-border M&A are very similar to round tripping FDI except that they are not intended to get around of the regulation. Instead, they are for the purpose of getting the services of global financial markets since the mergers and acquisitions involve more in changes of ownership and control than in net transfers of capital across borders. As 80% of the global FDI are in the form of mergers and acquisitions, we should not be surprised to see global round tripping FDI to reach a level as high as 40% if we account the cross-border ownership swaps as in the mergers & acquisitions deals as round tripping FDI.

Global FDI stock increased from $636 billion in 1980 to $6258 billion in 2000, an increase of almost ten folds. During the same period, world trade volume increased only about three folds from $4 trillion in 1980 to $12.5 trillion in 2000. This is mainly due to the increasing importance of mergers and acquisitions related FDI, which could be regarded as a kind of round tripping FDI.

PRC's share of global FDI increased from a low base of 1.7% in 1990 to a peak of 13% in 1994. After 1994, PRC's share of global FDI declined steadily to only 2.7% in 2000 largely due to massive M&A activities in the developed economies during the tech bubble. After the burst of tech bubble, global FDI dropped 50% in 2001 but PRC's FDI was growing steadily, contributing to a recovery of PRC's share in global FDI to 6.4%, which is consistent with its trade expansion to 4.3% of the global export

by 2001. From comparing PRC's FDI with the global FDI trends we may conclude that the global round tripping FDI through mergers and acquisitions are much larger and more volatile than PRC's round tripping FDI.

FDI into PRC have exceeded $40 billion since 1996 and have been growing steadily every year since 1990. This puts pressures on other developing countries, especially its Asian neighbours. The Asia-7, including India, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, and Thailand, with more population than PRC, only had $33 billion FDI inflows at their peak year of 1997. After the Asian financial crisis in 1997-1998, the Asia-7's FDI inflows declined dramatically to only $18 billion by 2001. The Asian financial crisis however did not slow FDI flows into the developing economies as a whole. FDI into developing economies excluding PRC recorded steadily growth from $34 billion in 1990 to $147 billion in 1997, and peaked at $197 billion in 2000, and then fell to $158 billion in 2001 (Cheong and Xiao 2003).

In 2001, per capita FDI inflows are $120 for the world, $420 for the developed economies, $42 for the developing economies excluding PRC, $37 for PRC, and only $12 for the Asia-7. Apparently, based on these statistics PRC is winning the competition for FDI inflows over its neighbours. However, recognizing the significance of round tripping FDI in PRC, which is as high as 30% to 50% according to the estimation in this paper, would narrow this gap. As pointed out previously, this gap in FDI inflow is driven primarily by the capacity of the hosting countries in creating new capital. If there is any competition, it is more of competition on domestic reform, which can increase the economy's capacity to create new capital (e.g. profit-making opportunities) and less of competition on a fixed amount of global FDI inflows.

According to the FDI statistics, the access to foreign capital is unequal with 5 billion population in the developing countries, 80% of the world, receiving only $2.1 trillion out of 6.8 trillion total in the FDI stock by 2001. In 2001, per capita FDI stock is $1,118 for the world, $3,763 for the developed economies, $478 for all developing economies excluding PRC, $309 for PRC, and only $220 for the Asia-7. Again, it is useful to remember that this inequality in FDI stock is exaggerated by large components of round tripping FDI in the form of mergers and acquisitions in the case of developed economies or in the form of round tripping FDI in the case of PRC.

The developed economies provided most of the global FDI stock but its share is declining from 95.8% in 1980 to 87.8% in 2001. In the last decade, Hong Kong, China emerged as a major financial centre for facilitating capital flows into PRC. Hong Kong, China's outward FDI stock increased from $2.3 billion in 1985 to $375 billion in 2001, exceeding Japan's $300 billion. In 2001, Hong Kong, China captured 5.7% of global FDI outward stock, compared with only 4.6% for Japan. A significant part of Hong Kong, China's outward FDI into PRC however is "round-tripping" Chinese capital. We will give a detailed estimation on the scale of PRC's round tripping FDI through Hong Kong, China and other source regions in section 6.

4. Patterns of PRC's FDI and their Relations to Round Tripping

The rapid FDI inflows into PRC, following its economic opening and reform, are essentially driven by two factors: PRC's large surplus labour and PRC's declining barriers for cross-borer mobility of capital and capitalistic institutions. In 2001, Japan, with its half a century long rapid economic growth and development, attracted only $49 per capita in FDI inflows and $395 per capita in FDI stock, compared to the world average of $120 in flow and $1118 in stock and PRC's $37 in flow and $309 in stock. Japan may be a capital-rich economy but many other capital-rich OECD economies

such as U.S. recorded large FDI inflows. Also, at official exchange rates, PRC's foreign trade is more than 40% of GDP while Japan's is about 20% at the current official exchange rates. The gap may be exaggerated because of under-valued RMB and over-valued JPY according to purchasing power parity exchange rates. Nevertheless these numbers seems to indicate that the Chinese economy is more open than the Japanese economy.

Moreover, PRC allows a large amount of processing trade, which requires large amount of imported components. Large scale processing trade is only possible for very open economies with close to zero transaction costs, tariffs and other taxes. PRC has committed to this close to zero transaction costs and taxes for processing trade since early 1980s, drawing lessons from its successful neighbours of newly industrialized Asian economies. The processing trade is important in creating jobs for some unskilled labour in PRC and in creating new capital or profits for the foreign investors. The later is a key condition for attracting both real FDI and round tripping FDI.

PRC's importing of capitalistic economic institutions is also unprecedented in scale, scope, depth, and speed, ranging from central banks, modern public corporations, labour markets, stock markets, and social security systems. The transfer of capitalistic institutions and practices is facilitated greatly by the existence of mature market economies in Hong Kong, China and Taipei,China as well as large amount of returning overseas students and overseas Chinese business communities. In a way, the overseas Chinese human capital could also be regarded as a kind of round tripping human capital as it went aboard first and then came back to PRC with experiences and knowledge about the global economy.

However, in the near future, PRC's financial and legal systems are under great pressure to price the risks and returns for millions of large and small projects, which would challenge even the best bankers in the world. The legal system, in spite of great achievements in legislation, is still weak in the enforcement of property rights and contracts. This weakness affects directly the robustness and efficiency of the Chinese economy and is one of the key factors behind the sustained capital flight and round tripping FDI.

PRC's competitiveness in labour intensive manufactures is well recognized and attracted 60% of PRC's total FDI as shown in Table 2. However, FDI is also significant in non-labour-intensive real estate sector that has about 12% of PRC's FDI and is ranked the second in the amount of FDI inflows among all major sectors. There are more than 20,000 real estate developers in PRC, 10% of which are FIEs. Many of them are likely to use round-tripping FDI to enjoy preferential policies on land use rights or to access external and domestic financial services. The services sector also attracted substantial FDI. Foreign invested enterprises have penetrated into virtually all kind of manufacturing and service industries. This is at least partly due to some round tripping FDI by disguised private enterprises, which attempts to take advantage of the preferential policies for FDI.

The concentration of PRC's FDI in a few clusters of coastal super cities have created a critical mass for global scale production, distribution and financing. This is one of the key factors behind PRC's rising capacity to create new capital. It is primarily these coastal regions that are attracting both real and round tripping FDI inflows into PRC. Table 3 ranks PRC's 31 provincial level regions by their average FDI inflows in 2001-2002 and provides a number of indicators for the provincial economies. The provinces and cities are then cut into three groups by their ranking in FDI inflows: the top-9, the middle-12, and the bottom-10. The top 9 includes, in descending order of

the share of average FDI during 2000-2001, Guangdong (25.7%), Jiangsu (14.9%), Shanghai (9.3%), Fujian (8.5%), Shandong (7.6%), Liaoning (5.4%), Zhejiang (4.8%), Tianjin (4.6%), and Beijing (3.8%). Many foreign visitors are impressed by the physical changes in the cities such as Shanghai and Beijing but the real stars of productive investment and manufacturing capacity in PRC is Guangdong and Jiangsu, where land prices have not been driven up to international levels as in Hong Kong, China, Shanghai and Beijing while access to finance, research and other services provided by the big cities is still convenient. The concentration of FDI in the top-9 is impressive if not surprising. This group has about one third of PRC's population but produced half of PRC's GDP and attracted three quarters of PRC's FDI and generated 90% of PRC's foreign trade. This is entirely consistent with the main theme of this paper: FDI inflows, real or round tripping, are attracted by the hosting economies' capacity to create profits and new capital.

FDI has dominated PRC's use of foreign capital. Foreign loans and other forms of foreign capital have declined to about 10% in recent years from about 70% before 1990. This is partly due to PRC's weak domestic banks and capital markets which have not yet been able to intermediate cross-border financial transactions. PRC's FDI on the other hand does not need to rely much on domestic financial system. The existence of round tripping FDI and rising importance of FDI provides an alternative for equity and debt financing for PRC's growing private enterprises (McCauley etc 2002).

The number of foreign invested enterprises in PRC is huge. By 2003 PRC has approved establishment of about 432,820 Foreign Invested Enterprises (FIEs) with a cumulated realized FDI as much as USD461 billion. Some of these FIEs are really disguised Chinese private enterprises through round tripping FDI. The FIEs have played very important role in the Special Economic Zones (SEZs). In Shenzhen, one of the SEZs next to Hong Kong, China, in 2002, the FIEs have generated two thirds of the city's gross industrial output. Although it is impossible to verify directly, it was understood well among practitioners that the FDI statistics are inflated by many FIEs. It is not surprising to see FDI reported by PRC is usually higher than those reported by Hong Kong, China and other source regions. The operational life of FIEs in PRC is short for many. As of the end of 2002 the number of FIEs approved in PRC was 424,196 but more than 200,000 of them, or 48%, have closed and only about 220,000 (among which about 160,000 industrial enterprises) are still in operation. Many FIEs have wound up purposely in order starting new FIEs as the preferential tax policies are given to new FIEs over their first 5 years. It is common for these new FIEs to use round tripping FDI for their registered capital (Huang 2003c).

Table 4 shows PRC's inward FDI flows over the years from 1994 to 2001 and grouped by four major regions and selected economies which have close trade and investment relations with PRC. The share of total FDI by each of the four major regions in 2001 is respectively 36.3% for Hong Kong, China and Macau, 16.7% for offshore financial centres, 17.9% for Asia Pacific economies, and 27.6% for developed countries. Each of these four regions is likely to have different rate of round tripping FDI into PRC. We will examine their patterns separately in Section 6.

It was noted that round tripping FDI is less likely to happen for large investment projects originated from developed economies such as US, Germany and Japan. This may be true but the problem is that there are also many small investment projects associated with overseas Chinese who is likely to be involved in the round tripping FDI because of their close relations with the local people in PRC. Table 5 shows PRC's top 15 suppliers of FDI in 2002. Hong Kong, China ranked the first with $20.5 billion utilized investment, followed by U.S. ($4 bn), Japan ($3.6 bn),

Taipei,China Province ($3.3 bn), British Virgin Islands ($2.4 bn) and Singapore ($2.1 bn). The interesting issue here is the size of the investment per project. Are FDI projects from USA on average much larger than from Hong Kong, China or British Virgin Islands? Table 5 shows that the FDI per project has little correlation with the size or importance of the source economies. It turns out that Cayman Islands has the largest average size of FDI per project at $556,000, followed by Netherlands at $407,000, British Virgin Islands at $366,000. Eight out of the fifteen countries/regions have average size of their FDI per project below $110,000, including U.S. and Hong Kong, China. The average FDI per project from Canada and Taipei,China province was below $60,000, the smallest among the group. If small size projects are more likely to be associated with round tripping FDI, then both developed economies such USA and Canada and Asia Pacific economies such as Singapore and Republic of Korea are equally likely to have significant round tripping FDI in PRC.

Table 6 examines the average size of utilized FDI in foreign invested enterprises with different legal types. Except for the joint exploration type, all the other types, including joint ventures, contractual joint ventures, and wholly foreign owned enterprises, have low levels of average utilized value of FDI ranging from $85,000 to $157,000 per enterprise. The joint exploration type has only 183 foreign invested enterprises with average size of realized FDI at $4 million per enterprise.

Table 7 shows the average size of the foreign invested enterprises by selected regions over the period from 1994 to 2001 in terms of utilized FDI per enterprise and per project. Although there is a tendency for the size to increase for all selected regions, the pattern that offshore financial centres have much larger FDI per project and per enterprise remain. This is largely due to the fact that many large Chinese enterprises have used these offshore financial centres to facilitate their listing in Hong Kong, China and other overseas stock markets.

Table 8 provides a few indicators showing the impact of FDI on the Chinese economy over the period from 1985 to 2002. In recent years, total utilized value of FDI is about 4% to 5% of PRC's GDP at official exchange rate, comparable to similar ratio for Canada (4%), Mexico (4%), New Zealand (6.4%), France (4%), Hungary (4.6%), Poland (3.9%), and UK (3.8%) but much high than the ratio in U.S. (1.3%) and Japan (0.4%). The contribution of foreign invested enterprises to PRC's gross industrial output has increased from 11.3% in 1994 to 33.4% in 2002. The contribution of FIEs to PRC's exports has increased from 28.7% in 1994 to 41% in 1997 and 52.2% in 2002. The contribution to employment by FIEs reached 3% of total urban employment. The most impressive achievements by FIEs are their contribution to PRC's industrial and commercial taxes, which increased from 4.25% in 1992 to 14.4% in 1998 and 20.5% in 2002. Clearly FDI in PRC are making large amount of profits. This means that a lot of new capital has been created in PRC. This forms the base for sustained capital flight from PRC as well as sustained round tripping FDI back to PRC.

5. Incentives and Causes of PRC's Round-Tripping FDI

Incentives for Round Tripping

What are the incentives for capital to make round trip, leaving PRC first and then coming back to PRC? It is not only about profit-making but also related to the safety and risk management of the capital. We can group incentives for round tripping FDI into the following categories:

1. Tax Advantages and Fiscal Incentives

PRC provide many preferential policies to attract foreign direct investment, including low tax rates, favourable land use rights, convenient administrative supports, and even favourable financial services from domestic and foreign financial institutions. In another word, it pays to be foreign invested enterprises even if you are really just a domestic private enterprise. But the costs of becoming a disguised private enterprise wearing a FIE hat are also high in many cases. You have to have foreign investment. If you cannot find foreign investors who are willing to invest in your enterprises, you have to bring capital aboard by yourself and come back as FDI (See Huang 2003c for detailed discussion on PRC's preferential policies on FDI).

2. Property Rights Protection

This is an important factor as the Mainland PRC has very different legal and institutional settings from Hong Kong, China and other economies for investment and capital flows. The motivation of PRC's private sector to park their wealth in Hong Kong, China is huge and fluctuates with the economic and political development in both places. PRC's basic infrastructure for property rights delineation and enforcement is still very weak. Many private enterprises operate in the environment of very restrictive regulation with loose and ad hoc enforcement. In most cases they have to break the formal rules to make profits. Hence, they have incentives to move their profits out of PRC first and then move them back in the form of FDI when they see profit opportunities as the Chinese governments tend to give better protection of property rights to foreign investors.

3. Expectations on Exchange Control and Exchange Rate

This is also an important factor relating to exchange control and exchange rate, which is often ignored in the academic discussion but has been the most important consideration for business people as well as speculators. This factor is playing more and more important role in recent years as PRC is relaxing its control on capital account and the international pressure on PRC to revaluate RMB intensifies. Activities associated with speculation on exchange rates are not easy to identify directly as they are buried in the large volumes of normal investment. But the changes in PRC's Balance of Payment account, including the level of official reserves and the level of errors and omissions term in the balance of payment account (a rough estimate of capital flight) would reflect partly the trend in speculative movement of cross-border capital flow.

4. Competitiveness of Hong Kong, China and Overseas Financial Services

Hong Kong, China is an international financial centre but serves primarily PRC related business. Local companies in Hong Kong, China have a lot of business in PRC. Many Mainland companies also reside in Hong Kong, China. These local and Mainland companies in Hong Kong, China become the best intermediation for FDI flows between Hong Kong, China and the Mainland. A significant part of the round tripping FDI in PRC is related to Hong Kong, China companies with close ties to the Mainland entities. But there is another important reason for making round tripping FDI: the listing of the Mainland companies in Hong Kong, China's stock markets. We will discuss this in detail in the next section.

Two Types of Round Tripping: Rent-Seeking or Value-Seeking?

The difficulty of estimating the scale of PRC's round-tripping lies in the fact that the definition and the nature of round-tripping FDI are not clarified conceptually. Money is fungible in the modern economy. Although we have technically precise definition of FDI, the nature of round tripping FDI can be very different. Conceptually at the heart of the debate on FDI in particular and finance in general, we should differentiate two broad types of round tripping:

- The first type of round-tripping, e.g. "round tripping for escaping regulation," creates no value added but facilitates the private sector's effort to get around the legal or administrative constraints/weakness, such as barriers to trade, high taxes, lack of property rights protection, etc. Most people apply implicitly this definition for PRC's round tripping FDI.

- The second type of round tripping, e.g. "round tripping for value added services," creates value added much like the financial sector's role for the real economy. The purpose of this type of round tripping is more than those specified in the first. Most cross-border mergers and acquisitions involve this type of round tripping of capital for value added financial services. Hong Kong, China as a modern international financial and trade centre is at the heart of the "round tripping for value added financial services."

Unfortunately after careful examination of available data sources, we conclude that it is impossible to distinguishing these two types of round tripping FDI empirically. It is like the concept of demand and supply in economic theory. You can distinguish the two in theory but in reality you need to have very good data to identifying the model. The available data do not allow us to get any reasonable estimation of the two different types of round tripping FDI. But we will see in Section 6 that qualitatively the two types of round tripping FDI do play important role in the case of PRC.

Another issue we need to keep in mind is the transaction costs of moving capital across borders. If the perceived value of round tripping by the underlying investors is less than the transaction costs, they will stop doing round tripping. However, if the value added services, such as listing in Hong Kong, China's stock markets or using Hong Kong, China's banking services, are much higher than the transaction costs involved. Round tripping may continue even if no obvious direct regulatory incentives exist for round tripping. As we will point out in Section 6, PRC currently does not include the round tripping FDI occurring in the process of listing Chinese companies in Hong Kong, China in its official FDI statistics.

PRC's Round Tripping FDI in the Context of Global Capital Flow

PRC's round tripping FDI can be viewed from a broad perspective of global mis-match of capital and investment opportunities. Globally it is recognized that Asian savings and capital are flowing to the U.S. markets because of the competitiveness of the U.S. financial markets and its economy. This is reflected in the large current account surplus a number of the Asian countries have with regards to the U.S. But U.S. and global multinational corporations are looking for investment opportunities globally and particularly in PRC and other Asian economies in the form of FDI as FDI does not need to rely on the poor domestic financial systems in the developing Asian economies. This is also round tripping capital flows in the broadest sense of the term. Although, this paper will not estimate this sort of broadly perceived round tripping capital flows, it is useful to put PRC's round tripping FDI in this context of global capital flows.

In 2001, the U.S. current account deficit (net capital import) reached $393.4 billion. On the other side, current account surplus (net capital export) was $87.8 billion for Japan, $57.1 billion for the six Asian traders, $17.4 billion for PRC, and $39.6 for transition economies. Except for Japan, many countries with current account surplus (net capital export) are not capital rich economies. According to IMF, U.S. absorbed 64% of global net capital exports in 2000 (measured by the sum of current account surplus of the rest of the world).

Who is financing the net capital imports to the United States? The U.S. goods deficit, which is the major part of its current account deficit, is as high as $484 billion. The U.S. goods account deficit is financed by the rest of the world: 18% by North America, 18% by Western Europe, 14.5% by Japan, and 21.3% by PRC. Clearly PRC is exporting capital to U.S. to finance the U.S. trade deficits with PRC while at the same time PRC is receiving large amount of FDI from the U.S. This can be viewed as a sort of the broadly perceived “round tripping capital flows”. But this “round tripping capital flows” is exaggerated because of the specialization and supply chain management among the greater PRC economies.

It is clear that in the last decade the part of U.S. trade deficits attributable to Hong Kong, China and Taipei,China are either declining or stabilizing while the part due to PRC is rising rapidly. This is largely because the production of final goods has been rapidly relocated to PRC from Hong Kong, China, Taipei,China as well as other Asian economies. But the key components or high value added parts of the supply chain are still kept in the more developed Asian economies. If this part of the contribution to the production of final goods is excluded, PRC’s own value added in exports to the U.S. would be very small. What it means is that PRC lends a lot of capital to the U.S. in the form of its current account surplus with U.S. but at the same time PRC borrows a lot from its Asian neighbours in the form of PRC’s current account deficits with Asian neighbours. This sort of round-tripping capital flows and goods flows is becoming part of normal functioning of the global market economy.

Another piece of evidences on round tripping capital flows is related to the net purchases of U.S. bonds by foreign residents. During the ten years from 1988 to 1997, Asia’s net purchases of U.S. bonds reached $415 billion, compared to only $1,447 billion by the rest of the world. In 2001, Asia’s net purchases of U.S. bonds were as high as $147 billion, compared to only $405 billion by the rest of the world. PRC’s net purchases of U.S. bonds in 2001 were as much as Japan’s at about $52 billion. Both Japan and PRC have increased their net purchases of U.S. bonds after the Asian financial crisis. During the ten years from 1988 to 1997, PRC’s net purchases of U.S. bonds were only 11.5% of the Asia total. But it increased to 23% in 1999, 19% in 2000, and 35.2% in 2001. Given PRC’s $280 billion official reserves and about $260 non-official-reserves foreign exchange credit in the banking system, PRC’s increased net purchases of U.S. bonds are inevitable. But it is still surprising to know that by 2001 PRC’s share is as much as 35.2% of the Asia total. Clearly PRC is putting a lot of official and private savings in U.S. government bonds. Why? A simple explanation is to get better protection of property rights! Like other foreign investors in U.S. assets, the Chinese government and the Chinese people certainly believe that the property rights of their U.S. investment are well protected. On the other hand, PRC also gives better protection to property rights of foreign investors than to domestic investors. Hence, on the whole, both sides are happy and better protection of property rights enhances value and productivity of capital. This is also one of the positive impacts of round tripping capital flows.

It is interesting to note that the private foreign bank lending to PRC is not as important as FDI. This can be seen from the changes in cross-border banking capital flows between Hong Kong, China and Mainland PRC during the last decade. Hong Kong, China used to be an important centre in Asia for making syndicated loans to PRC and other Asian economies. From 1994 to 1999, Hong Kong, China was a net lender of banking capital to Mainland PRC. After 2000, however, Hong Kong, China turned into a net borrower of banking capital from Mainland PRC. Since 1997, there has been a steady decline in Mainland's gross banking liabilities to Hong Kong, China from more than $50 billion in 1997 to less than 20 billion after 2001. This was triggered by the bankruptcy of the GITIC (Guangdong International Trust and Investment Corporation), which borrowed from foreign banks in Hong Kong, China with the implicit understanding that the Chinese government would guarantee the loans. The Chinese government however decided not to use its money to save this regional state-owned holding company in order to avoid moral hazard problem in similar cases for other companies and in the future. After the GITIC bankruptcy, foreign banks became very cautious in extending syndicated loans to PRC.

During the Asian financial crisis in 1997, Hong Kong, China suffered a huge withdrawal of foreign banking capital. Hong Kong, China's foreign banking funds fell from $630 billion in June 1997 to $250 billion by April 2002, a drop of 60%. Among the total withdrawal of $380 billion, $251 is by Japan. In spite of fluctuations in capital flows, Hong Kong, China's banks have been extremely resilient during and after the crisis with NPLs staying no more than 5%. HSBC, Bank of East Asian and other Hong Kong, China banks have started to prepare their entry into the Mainland markets by investing in some small Chinese joint-stock banks such as HSBC's holdings of shares in Bank of Shanghai. Hong Kong, China's banking sector since early 2000 has become a net borrower of the Mainland PRC funds. When these funds are used in non-banking sectors of the Mainland economy, including in the form of FDI, they will become round tripping capital as well. But the fact that Hong Kong, China's banking sector is having more and more net borrowing from PRC indicates that more and more profits, income, and new capital are created in PRC. That again is the force behind the sustained capital flight and round tripping FDI.

Capital Flight and Round Tripping FDI

It is useful to take a look at the scale of PRC's capital flights. Without capital flight in the first place there would be no round tripping FDI back to PRC. Table 1 provides a summary account of PRC's balance of payments since 1982. Two items are related to PRC's capital outflows. One is the current account surplus and the other is the errors and omissions term. PRC's accumulated current account surplus since 1982 reached $134.6 billion or 11.6% of GDP in 2001 and $215.9 billion or 15.4% of GDP in 2003. The accumulated errors and omissions since 1982, a rough estimate of the accumulated capital flight were at $139.8 billion or 12.1% of GDP in 2001 and $113.6 billion or 8.1% of GDP in 2003.

Frank R. Gunter, in his recent article (Gunter 2004) provides a comprehensive study on PRC's capital flight. He provides basically two measures: one based on the balance of payment and the other using the residual method.

Balance of payment measure
= Nonblank private short-term capital + net errors and omissions;

Residual measure
= Sum of Current Account Balance + Net Foreign Investment
+ Change in Reserves + Change in Debt;

Gunter made a few important adjustments to the above two standard measures. The adjustments are closely related to the issue of round tripping FDI. The key adjustment is to include the capital flight associated with mis-invoicing of exports and imports between PRC and other economies. This item is very big and dominating in the adjusted estimation of PRC's capital flight.

The other two adjustments are about banking assets in the residual measure of capital flight. The legitimate foreign assets held in PRC's banking system should be deducted from the standard residual measure and the gap between and BIS reported foreign debts and PRC's reported foreign debts should be added back.

Depending how these adjustments are incorporated using the above two standard measures, Gunter generated two low estimates, two high estimates and an average of the four estimates on PRC's capital flights. Table 9 summarizes the estimates of capital flight in Table 1 of Gunter 2004: the low estimate of capital flight is the average of the two low estimates and the high estimate is the average of two high estimates. The average estimate is the average of the four estimates. As compared to PRC's GDP at the official exchange rate, the average estimate of PRC's capital flight was only about 2% during 1985-1989 but increased steadily from 5.4% in 1990 to 12% in 1998 and then fell sharply to 2.1% in 2001.Table 9 also shows that the average estimate of PRC's capital flight has always been higher than the FDI inflows into PRC since 1985 except for the year 2001. This is consistent with this paper's argument that PRC created a lot of new capital. A lot of the new capital went aboard and stayed aboard. But some of the flight capital went back in the form of round tripping FDI. Next section attempts to estimate the scale of the round tripping FDI.

6. Estimating PRC's Round Tripping FDI

According to PRC's official definition, Foreign Direct Investment (FDI) refers to the investment in three legal types of foreign invested enterprises (FIEs) in PRC: solely foreign funded enterprises, sino-foreign joint ventures and sino-foreign cooperative ventures. The foreign investors in FIEs include any foreign enterprise, economic entity or individual as well as the Hong Kong, China, Macao and Taipei,China compatriots and the Chinese enterprises registered outside PRC. FDI must be invested in the form of spot foreign exchange, in-kind, or technology investment. The re-investment of the profits by FIEs and the funds borrowed from overseas by the FIEs for their PRC projects can also be counted as FDI.

Round-tripping FDI refers to the domestic capital that has fled the home country and then flows back in the form of foreign direct investment. In the case of PRC, it could also include domestic capital that is counted as foreign capital against the government regulation. This often happens to the foreign invested component of the registered capital for a newly established foreign invested enterprise. The faking of the foreign invested component of the registered capital could involve PRC's commercial bank lending to the foreign invested enterprises in violation of PRC's relevant regulations. It is common for some fake foreign invested enterprises to use false capital auditing report and false bank deposits documents to meet the requirements of registered capital input by the foreign partners. These incidences would clearly inflate the FDI statistics reported by the Chinese authorities.

The inflated FDI inflow statistics as reported by PRC will be much higher than the FDI outflow statistics as reported by the source region since there are no incentives for foreign investors to report their fake investment in PRC to their home countries. Hence, the gap between FDI inflow statistics as reported by PRC and FDI outflow

statistics as reported by source regions are the unverifiable or unconfirmed part of PRC's FDI inflows and can be used as a proxy measure of the round tripping FDI to PRC. This is the methods used in this paper to estimate PRC's round tripping FDI from the Hong Kong, China and other source regions.

Round Tripping FDI from U.S., Germany, Japan, Republic of Korea, Taipei,China Province, and Singapore

In this sub-section, we try to estimate the round tripping FDI to PRC from six source regions which has published their own independent statistics on FDI to PRC. The round tripping FDI from Hong Kong, China will be discussed in the next sub-section as the case of Hong Kong, China is more complicated than other source regions.

Table 10.1 to 10.6 shows FDI statistics as reported by PRC and the source regions, including U.S., Germany, Japan, Republic of Korea, Taipei,China Province, and Singapore:

- Row A of Table 10.1 to 10.6 is the FDI flows from the source region to PRC as reported by the source region.
- Row B is the FDI flows from the source region to PRC as reported by PRC.
- Row C is equal to Row B minus Row A and is the unverifiable FDI flows from the source region to PRC. Part of Row C is likely caused by round tripping FDI.
- Row D is the ratio of Row C over Row B, which is the ratio of unverifiable FDI.
- The last column of Row D is the weighted average of Row D over the recent years, which should have two components: the round tripping FDI ratio and the percentage of FDI that can be accounted by statistics reporting errors.
- Since Row D (the ratio of unverifiable FDI) fluctuated over the years, one column in the table also shows the standard deviation of Row D over the recent years.

It is useful to point out a few issues about the statistical reporting errors. They are related to many of the inconsistencies between PRC's and source regions' FDI statistics reporting practices. Many factors, in addition to round tripping FDI, such as the differences in the definition and collection of the FDI statistics across countries, may contribute to the above unverifiable part of PRC's FDI from each of the source regions. The appendix in an OECD Investment Policy Review "China: Progress and Reform Challenges" (OECD 2003b) provides a detailed comparison on these differences and some of the relevant parts are summarized here:

- PRC does not put a limit on the percentage of shares owned by investors (for example above 10% under OECD standards) when calculating the FDI statistics. So any amount of investment into the foreign invested enterprises by an individual or firm are considered FDI. This would inflate PRC's FDI inflows as reported by PRC relative to corresponding FDI outflows as reported by OECD countries. But the gap caused by this should not be counted as round tripping FDI. Instead, it should be regarded as one kind of the statistics reporting errors.

- The local government department in charge of FDI promotion is responsible for collecting and reporting FDI statistics, leading to serious conflict of interest and a tendency for PRC's FDI inflows as reported by PRC to be high than the FDI outflows as reported by the source region. This part can be counted as round tripping FDI.

- PRC only reports statistics on FDI inflows and does not report the statistics on market value of FDI stock, FDI outflows and incomes derived from FDI. These have made it difficult to cross-check the reliability of PRC's FDI inflows. It means that the method we are using to estimate PRC's round tripping FDI has a wide range of errors and should be interpreted accordingly.

Clearly some of the unverifiable FDI from source regions to PRC (Row C in Table 10.1 to 10.6) are not round tripping FDI. In another word, it seems justifiable to interpret the unverifiable FDI inflows as the high estimation or the upper bound of PRC's round tripping FDI. On the other hand, the inconsistent accounting framework discussed above by OECD study is not entirely statistical errors. The systematic accounting bias could be regarded as over-reporting on the PRC side which is similar to round tripping FDI in nature. Also, the real statistical reporting error should have bias in both directions. By looking at Table 10.1 to 10.6, we can see that the unverifiable part of FDI into PRC is mostly positive and large. This implies that the round tripping component of the unverifiable FDI is probably dominating the unbiased statistical reporting errors component.

To explore the problem of statistical reporting errors further, we attempted in Table 10.7 to estimate the unverifiable FDI for the U.S., using the same method as we used in Table 10.1 to 10.6 for the available data from eight countries: Mexico, Brazil, Finland, Canada, Hong Kong, China, U.K., Japan, and Germany. The results are quite illustrative. Mexico and Brazil reported the same FDI statistics as U.S. so that the unverifiable FDI to U.S. from the two countries are zero. The unverifiable FDI to U.S. from Finland and Canada are very small at about 4% level. The unverifiable FDI to U.S. from Hong Kong, China and U.K. are very large at 44% and 55% levels respectively, which are close to those observed in FDI to PRC. However, the difference is that the unverifiable FDI to U.S. from Japan and Germany are negative and large at -83% and -104% levels respectively. This means that the unverifiable FDI to U.S. are more likely due to statistical reporting errors. Indeed, the weighted average of the ratios of unverifiable FDI across different source countries is small at the level of 18%. We can draw two important implications from the U.S. case:

- If the unverifiable FDI is mainly due to statistical errors like in the case of U.S., it should show both positive and negative errors. In the case of PRC, we have observed consistently large positive unverifiable FDI inflows for all of the source regions where data are available. The available source regions accounted for 70% of PRC's FDI inflows. Hence, the unverifiable FDI inflows in the PRC case is mostly likely due to round tripping FDI, instead of statistical errors.

- The statistical errors of FDI data could be huge and the unverifiable FDI could reach 50% to 100% for some source countries. Hence, our method of comparing the reported FDI statistics from host and source countries to estimate the round tripping FDI should allow large margins of error.

Now let's go back to look at the results of Table 10.1 to 10.6, the weighted average of the unverifiable FDI to PRC in recent years is all positive and high for the six FDI

source regions where data are available, e.g. 68.5% from U.S., 31% from Germany, 60.9% from Japan, 60.3% from Republic of Korea, and 70.2% from Taipei,China Province, and 65.5% from Singapore. How to interpret these numbers?

- If there are no significant statistical reporting errors, these numbers here could be regarded as a proxy for the average ratio of round tripping FDI into PRC.

- If the statistical reporting errors are non-biased in the sense that they average to zero over the years, the above numbers would also be regarded as a close approximation of the round tripping FDI ratio.

- If the statistical reporting errors have systematic bias towards over-reporting by PRC side independent of the round tripping bias, we should then adjust the above numbers downward by the size of the systematic statistical reporting errors.

To be conservative, we will use the last interpretation and to allow some systematic statistical reporting errors that are biased toward the same direction as the round tripping FDI bias. How to decide the size of the adjustment? As can be seen from Row D of Table 10.1 to 10.6, there are large fluctuations in the unverifiable part of FDI in PRC for each of the six source regions. The degree of variation in the unverifiable part of FDI (Row C) over time is captured by its standard deviation. The standard deviation is a useful indicator on the likely range of both statistics reporting errors and the volatility of round tripping FDI. We do not have enough information to distinguish how much of the standard deviation is attributable to each of the two factors. Hence, we assume the systematically biased statistics reporting errors is as large as one half of the standard deviation of Row C (the unverifiable part of FDI) during the observed period. This is a strong assumption but is a conservative assumption for estimating round tripping FDI. We can then subtract one half of the standard deviation from the weighted average of unverifiable FDI (Row D of last column) to get the mean or middle estimate for the round tripping FDI ratio. We also use a band of errors of one half of the standard deviation to get the high and low estimates of the round tripping FDI ratio.

As shown in Table 10.1 to 10.6, the one standard deviation for unverifiable FDI (Row D) is 13.5% for U.S., 17.2% for Germany, 18.3% for Japan, 23% for Republic of Korea, 36.2% for Taipei,China Province, and 11.2% for Singapore. The mean estimate of round tripping FDI and the associated range of errors is then:

- 61.8% for U.S. (or in the range of 55.1% to 68.5%);
- 22.4% for Germany (or in the range of 13.8% to 31%);
- 51.7% for Japan (or in the range of 42.6% to 60.9%);
- 48.8% for Republic of Korea (or in the range of 37.3% to 60.3%);
- 52.1% for Taipei,China Province (or in the range of 34% to 70.2%)
- 59.9% for Singapore (or in the range of 54.3% to 65.5%).

Round Tripping FDI from Hong Kong, China

In recent years, a rising proportion of Hong Kong, China's outward FDI is towards the Mainland PRC, 41.1% in 1998, 52.3% in 1999, 78.1% in 2000, 74.9% in 2001, and 91.3% in 2002. By comparing the Hong Kong, China's and PRC's FDI statistics we can derive the pattern of round tripping FDI from Hong Kong, China. We can use the same method as applied to the other six source regions to estimate the ratio of round

tripping FDI from Hong Kong, China to PRC. But unlike the above cases, Hong Kong, China is a major international financial centre for PRC. In particular, many Chinese companies have been listed in Hong Kong, China's stock markets. This has important implications for estimating the round tripping FDI form Hong Kong, China to PRC. Hence, we will review briefly the background of capital market development related to PRC and Hong Kong, China.

PRC made little progress in attracting foreign portfolio investment during 1997 to 2001. According to IMF 2003, the derived amount of foreign portfolio investment in PRC increased only slightly from $19.3 to $20.1 during this period, reflecting its stagnant B shares market, which is a tiny experimental stock market designed for foreign investors with share prices quoted and traded in foreign exchange according. But it was well known that even before PRC opened its B share markets to its own residents, many shareholders of B shares were actually Chinese residents using borrowed foreign passports and foreign bank accounts to carry out transactions. This is also a kind of round tripping capital flows but in the form of portfolio investments.

In March 2001, PRC opened its "B share" market to domestic residents with foreign exchange savings. This opening caused a brief surge in prices and many foreign investors took profits and dumped many shares to domestic residents. At the end of 2002, PRC announced its plan to allow the Qualified Foreign Institutional Investors (QFII) to invest in its "A share" market designed for domestic investors with RMB savings. The Chinese authorities are also studying actively the mechanism of Qualified Domestic Institutional Investors (QDII), which would allow Chinese residents to invest in overseas securities markets, including Hong Kong, China markets, where many Chinese companies are listed but their shares cannot be sold to Chinese residents through legal channels. When the cross-border transactions in the capital markets are possible, more round tripping capital flows would happen legitimately. But even before the QDII is allowed officially, many Chinese residents are already using their flight capital to buy Hong Kong, China stocks, including IPOs of Mainland companies listed in Hong Kong, China. This kind of round tripping capital flows is looking for better risk adjusted return in Hong Kong, China's markets than in the Mainland capital markets. They will not usually be classified as round tripping FDI as the investors' share in one listed company is usually well below 10%, the threshold for qualifying as FDI.

However, the IPO of large Mainland companies may lead to large round tripping FDI. The process is similar to the mergers and acquisitions. When a Mainland company is preparing for listing in Hong Kong, China as a "Red Chip" company, it would register as a new local company in Hong Kong, China but with a huge injection of capital from its Mainland parent company in the form of buying up a large trunk of the shares in the Hong Kong, China "Red Chip" company (usually about 60% to 70%). This would count as FDI from the Mainland to Hong Kong, China since the portfolio investment exceeds the 10% threshold for qualifying as FDI according to Hong Kong, China statistical reporting practices. Hence, the listing of Mainland PRC companies in Hong Kong, China would lead to a large FDI inflow from PRC to Hong Kong, China.

The "Red Chip" company located in Hong Kong, China then can use the capital injection from its parent company in Mainland PRC and the funds being raised from IPO in Hong Kong, China to buy substantive profit-generating projects in PRC, perhaps from some related companies under the supervision of the "Red Chip" company's parent. This again would count as FDI from Hong Kong, China to PRC according to international practice since the procurement of projects in PRC by Hong Kong, China listed "Red Chip" companies are usually more than the 10% threshold for FDI investment. Hence, the listing of Mainland PRC companies in Hong Kong,

China would lead to a large FDI inflow from Hong Kong, China to PRC. The complication here is that according to PRC's current FDI reporting practices, the FDI investment resulting from listing Mainland companies in Hong Kong, China is not counted in PRC's FDI statistics since there is little movement of physical capital or cash in the process.

Indeed, in reality not much net capital has been moved across the border. Instead, only the ownership structure has been changed significantly and the value of the listed company may have increased a lot due to expectations about better profitability and better corporate governance. This would be the type of round tripping FDI that is intended to get value added financial services from Hong Kong, China. This type of round tripping FDI is similar to the M&A related FDI in the developed economy.

The significance of this type of round tripping FDI into PRC can be seen from the structure of Hong Kong, China's capital markets. The share of Hong Kong, China's market capitalisation by the Mainland background companies increased from only 4.8% in 1992 to 16.3% in 1997, 21.1% in 1999 and 26.3% in 2002. Table 12 shows that the share of IPO funds raised by the Mainland background companies listed in Hong Kong, China has increased from around 30% in 1991 to around 84% in 2002. Table 12 shows the top 10 IPOs in Hong Kong, China over the period from 1997 to 2002. Clearly, Hong Kong, China stock markets are very active in listing Mainland companies. This means that there must be significant round tripping FDI between Hong Kong, China and PRC with the purpose of using Hong Kong, China's value added capital market services.

However, it is difficult to estimate this sort of round tripping FDI since PRC does not count the financial transactions through the stock markets as FDI even if the investment is more than 10% of the companies' equity. In many IPO cases involving Hong Kong, China stock markets, no physically new foreign invested enterprises are established in PRC and little net foreign exchange capital is invested in PRC. But the impact of this sort of round tripping FDI related to capital market transactions is very significant to Hong Kong, China FDI statistics, especially in 2000. As shown in Table 13, in 2000, Hong Kong, China recorded $46.3 billion FDI to PRC but PRC only reported $15.4 billion FDI from Hong Kong, China. This is contrary to the general pattern during the period of 1998-2002 (except 2000) when the FDI flows from Hong Kong, China to PRC as reported by PRC were always larger than the FDI flows from Hong Kong, China to PRC as reported by Hong Kong, China. The difference between $46.3 billion and $15.4 billion is as large as $30.9 billion and can only be explained by round tripping FDI related to IPOs activities in Hong Kong, China by Mainland companies.

Indeed, as shown in Table 12, three of the top ten IPOs in Hong Kong, China for the period of 1997-2002 (e.g. China Unicom, Sinopec, and Petro China) were carried out in the year 2000 by large Mainland companies. The three Mainland companies raised about $12 billion through IPOs in Hong Kong, China stock markets in 2000. The IPO value of PRC's large companies is usually much smaller than one third of their total market capitalization due to large non-tradable shares by the state agencies. Hence, the parents of the above three newly listed companies must have held non-tradable shares exceeding $24 billion. Clearly some of the capital market transactions relating to these IPOs are included in Hong Kong, China's FDI statistics but not included in PRC's FDI statistics. It is not clear how exactly Hong Kong, China companies have treated these transactions when they reported their FDI statistics. By examining the sector statistics, we found that the surge in 2000 in Hong Kong, China's FDI flows to PRC is concentrated only in the communications sector. As shown in Row A4 and B2 in Table 13, in 2000, Hong Kong, China reported $33.2 FDI outflows to PRC in the

communications sector but PRC only reported $1.0 billion FDI inflows from all sources into the transportation, storage, post, and telecommunication services sector. Clearly much of the surge in Hong Kong, China's FDI to PRC in the year 2000 can be explained by the FDI flows in the communications sector.

Table 13 provides three versions of FDI flows from Hong Kong, China to PRC as reported by Hong Kong, China (e.g. A1, A2, and A3). A1 is the unadjusted FDI from Hong Kong, China to PRC. A2 is FDI from Hong Kong, China to PRC adjusted by simply excluding FDI from the communications sector (A2=A1-A4). After this adjustment, FDI from Hong Kong, China fell in all years during 1998-2002. The downward adjustment is particularly sharp for the year 2000, falling from $46.3 billion to $13.1 billion. This simple adjustment would exclude some of the regular FDI in the communications sector that are not related to capital market transactions. A3 is the FDI from Hong Kong, China with a less dramatic adjustment that allows for the regular FDI from the communications sector but excludes the apparent over-reporting by Hong Kong, China in the communications sector (A3 = A1- (A4-B2)). In A3, only the difference between A4 (FDI outflows from Hong Kong, China to PRC in the communications sector) and B2 (FDI inflows to PRC in the transportation, storage, post, and telecommunications services sector) are subtracted from the unadjusted FDI from Hong Kong, China to PRC (A1).

The FDI from Hong Kong, China to PRC as reported by Hong Kong, China and adjusted for the over-reporting by Hong Kong, China in the communications sector (A3) is compared with B1, which is the FDI from Hong Kong, China to PRC as reported by PRC. Using the same method as in the cases of the six FDI source regions, Row C in Table 13 (C=B1–A3) is the unverifiable part of FDI from Hong Kong, China to PRC. Row D (D=(B1-A3)/B1) is then the ratio of unverifiable part of FDI from Hong Kong, China. Following the method in the last sub-section, the weighed average of Row D can be used as the high or upper bound estimate on the ratio of round tripping FDI from Hong Kong, China to PRC. Clearly Row D fluctuates from as high as about 70% in 1998, 2001, and 2002 to as low as 8.3% in 2000. The weighted average of Row D is 53.4%. The standard deviation for Row D during 1998-2002 is 27.1%. As in the previous cases, we will use the one half of the standard deviation as a proxy for the systematically biased statistics reporting errors. Subtracting one half of 27.1% from 53.4%, we obtain the middle or mean estimate of the round tripping FDI from Hong Kong, China to PRC, which is 39.9%. In another word, based on the available FDI statistics from Hong Kong, China and PRC, the ratio of round tripping FDI from Hong Kong, China to PRC during the period of 1998-2002 is likely to be in the range of 26.3% to 53.4% with the middle estimate at 39.9%. It should be noted that this estimate of round tripping FDI from Hong Kong, China to PRC includes only the type of round tripping that is related to escaping regulations and does not include the type of round tripping that is related to capital market transactions such as listing Mainland companies in Hong Kong, China's stock exchange.

Round Tripping FDI from Offshore Centres

We have pointed out in the previous section that the offshore financial and business centres have become more and more important sources of PRC's FDI inflows. As shown in Table 4, their share of PRC's total FDI increased from only 0.3% in 1994 to 9% in 1998 and fell to 7.9% in 2001. For the period 1994-2001, the weighted average share of FDI by the offshore centre is as high as 9.6%. A significant part of FDI from the offshore centres could be round tripping FDI when the Chinese enterprises are attempting to use these centres to facilitate their financial transactions. But it is

difficult to estimate directly the amount of round tripping FDI from the offshore centres. An indirect way to gauge this is to look at how other economies have used the offshore centres in facilitating their round tripping FDI. We are fortunate to have a clear direct estimation of round tripping FDI to Hong Kong, China from the offshore centres. The Hong Kong, China Government obtained these numbers from a detailed survey specifically designed to find out the extent of round tripping capital movement through the offshore centre. The results are not only relevant for Hong Kong, China but also can be illustrative for PRC as the offshore centres are primarily used for managing capital flows of listed companies traded in Hong Kong, China's stock markets. There are no reasons why the Mainland companies, if they can move capital to these offshore centres in the first place, cannot move capital back to the Mainland as easily as Hong Kong, China companies do in their case of round tripping FDI. This is so because PRC does not have much restriction on FDI inflows in the form of FDI. Hence, it is reasonable to assume that on average the ratio of round tripping FDI from the offshore financial centres for the case of PRC could be similar to the ratio for the case of Hong Kong, China. Hence, the ratio of round tripping FDI through offshore centres in the case of Hong Kong, China provides a useful indicator for us to estimate the likely range of the similar ratio in the case of PRC.

Table 14 shows the estimation of round tripping FDI to Hong Kong, China through the offshore centres by the Hong Kong, China government statistics department. The ratio of round tripping FDI from offshore centres to Hong Kong, China was 40.4% in 1998, 27% in 1999, 48.3% in 2000, 14.4% in 2001, and 82.6% in 2002. The weighted average of this ratio for the period 1998-2002 is 40.1% and their standard deviation is 25.9%. This tells us that the round tripping FDI through offshore financial centres could be very large.

In the next sub-section, we will not use this ratio for estimating directly PRC's round tripping FDI through offshore financial centres. Instead, we will use the case of Hong Kong, China to argue that PRC's ratio of round tripping FDI through the offshore centres should be larger than the lowest ratio of round tripping FDI we estimated for PRC's six FDI source regions. More specifically, we argue that for the rest of FDI source regions excluding U.S., Germany, Japan, Republic of Korea, Taipei,China Province, Singapore, and Hong Kong, China, the ratio of round tripping FDI to PRC is similar to that for Germany, e.g. around 22.4% or within a range of 13.8% to 31%.

The Scale of PRC's Round Tripping FDI

In the previous subsections we estimated directly from the available statistics the round tripping FDI to PRC from seven FDI source regions: U.S., Germany, Japan, Republic of Korea, Taipei,China Province, Singapore, and Hong Kong, China. Table 15 puts all the crucial information together in an attempt to estimate an average ratio of round tripping FDI in PRC in recent years. As shown in Table 15, for the year in 2000, according to PRC's FDI statistics, the above seven regions contributed US$29.7 billion FDI to PRC, which is 72.9% of PRC's total FDI of US$40.7 billion. Table 15 also provide the weighted average of the round tripping FDI ratio for the seven regions as a whole: 46.5% with a range from 34.9% to 58.1%.

Now, the problem is we don't have any direct information about the ratio of round tripping FDI for the rest of PRC's FDI source regions. An overly conservative approach to deal with this is to assume that there is zero round tripping FDI to PRC from the rest. If this assumption is used, then from simple calculation the weighted average of the round tripping FDI ratio for PRC as a whole would be 33.9% with a range from 25.5% to 42.4%.

A more reasonable approach is to assume that the round tripping FDI ratio for the rest regions to be the same as for the Germany since Germany has the lowest ratio. This assumption is likely to be conservative since regions like offshore financial centres are likely to have much high round tripping FDI ratio. When this assumption is used, PRC's overall round tripping FDI ratio is 40% with a range from 29.2 to 50.2% as shown in Table 15. We believe this is the best estimate based on all the available information.

Our estimation shows clearly the scale of round tripping FDI in PRC is very large although the middle estimation of 40% for PRC's round tripping FDI is only one half of the 80% for the share of M&A related FDI for the global FDI flows. Table 16 compares our estimation of the general pattern of PRC's round tripping FDI with the pattern of PRC's capital flight as estimated by Gunter 2004. In Table 16, we multiply the high, middle and low estimates of the average ratio of PRC's round tripping FDI to PRC's total FDI as reported by PRC to get predicted flows of PRC's round tripping FDI during 1994-2001 for the high, middle and low estimates. The predicted flows of PRC's round tripping FDI are then divided by PRC's capital flight during the same period for high, middle, and low estimates respectively. The weighted average of the ratio of round tripping FDI over capital flight is 21.2% for the high estimates, 23.9% for middle estimates, and 30.6% for low estimates. In another word, based on the data during the period 1994-2001 about 20% to 30% of PRC's flight capital has returned back to PRC in the form of round tripping FDI. This seems a reasonable result to us.

In this paper we have tried to focus on finding out the overall scale of PRC's round tripping FDI since that is the most relevant information for policy debates. It would be useful to know how the round tripping FDI flows are affected by many specific factors over time such as changes in tax rates, expectations on changes in exchange rates, relaxation of capital control, access to overseas capital markets, rate of returns of investing in PRC etc. But the limited amount of the data does not allow us to investigate these interesting issues in any detail. By looking at the available data it seems reasonable to conclude that the major driver for the round tripping FDI is the long-term dilemma that on the one hand there are profitable opportunities in PRC but one the other hand investors would like to keep their capital aboard. Unlike the short term flows of portfolio capital or other speculative investment, FDI in PRC is relatively stable against the fluctuations in many of the macro economic variables such as interest rates, exchange rates, and tax rates. The relationship between PRC's round tripping FDI and PRC's capital fight seems also quite stable over the longer run. The scale of PRC's round tripping FDI is large but not far from international experiences such as in the case of U.S. or in the case of cross-border M&A. Although the margin of errors for our estimation is large due to the inaccurate nature of FDI statistics, qualitatively there is no doubt that PRC's round tripping FDI is very large and significant since the data from PRC's seven FDI source regions show the same consistent patterns and they together accounted for more than 70% of PRC's total FDI inflows.

7. Conclusion

This paper estimates the scale of PRC's round tripping FDI and reviews the cause and implications of PRC's round tripping FDI. Based on the available statistical information, PRC's round tripping FDI ratio is likely to be around 40% or within the range of 30% to 50%. Our estimation is much higher than the previous estimates in the literature. The high level of round tripping FDI in PRC means that the FDI inflows to PRC are somehow exaggerated. PRC's capital flight is much larger than PRC's

FDI inflows. PRC's round tripping FDI is only about one quarter of PRC's capital flight. The high FDI inflows to PRC is largely a result of PRC's capacity to create new capital and new profits and should not be regarded as a threat to other developing economies. PRC's strong capacity in creating new capital and its weak institutions in protecting property rights has led to sustained and large capital flight and round tripping FDI. But the pattern of capital flight and round tripping FDI is largely a statistic issue and has little implications on efficiency or resource allocation. As PRC continues in its effort to liberalize its economies, we are likely to see more and more cross-border capital flows in various forms, including capital flight and round tripping FDI. Our findings suggest that the control on PRC's cross-border capital flows seems much looser than most people would believe. Since the FDI is one of the least flexible form of cross-border investment, the large scale of PRC's round tripping FDI suggests the existence of large amount of overseas Chinese capital.

This study is by itself useful as a building block for other studies relating to PRC and Asia economic dynamics. But it may have more direct implications on policies relating to PRC's exchange control, capital account liberalization, exchange rates, and PRC's international relations with US, Japan, and Asia. Due to space limitation this study focuses only on the round-tripping issue and leaves the policy implications and other related conceptual and empirical issues in the background for other or future studies.

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Table 1. PRC's Balance of Payments 1982-2003

Unit: US$ Billion	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Current Account Balance	5.7	4.2	2.0	-11.4	-7.0	0.3	-3.8	-4.3	12.0	13.3	6.4	-11.9	7.7	1.6	7.2	29.7	29.3	15.7	20.5	17.4	35.4	45.9
FDI into PRC	0.4	0.6	1.3	1.7	1.9	2.3	3.2	3.4	3.5	4.4	11.2	27.5	33.8	35.8	40.2	44.2	43.8	38.8	38.4	44.2	52.7	53.5
Net Errors & Omissions	0.3	0.1	-0.9	0.1	-0.9	-1.4	-1.0	0.1	-3.1	-6.7	-8.3	-9.8	-9.8	-17.8	-15.6	-17.0	-16.6	-14.8	-11.9	-4.9	7.8	18.4
Reserve Assets Change	-6.3	-4.1	-0.1	2.4	2.0	-4.9	-2.3	0.5	-12.1	-14.6	2.1	-1.8	-30.5	-22.5	-31.6	-35.7	-6.4	-8.5	-10.5	-47.3	-75.5	-117.0
GDP in USD at average exchange rate				304.4	294.2	321.3	400.0	448.9	389.3	406.4	481.4	601.2	542.7	701.3	818.9	903.2	960.8	992.4	1,079.5	1,157.2	1,233.7	1,406.0
Accumulated CA since 1982				0.5	-6.5	-6.2	-10.0	-14.3	-2.3	10.9	17.3	5.4	13.1	14.7	22.0	51.7	81.0	96.7	117.2	134.6	170.0	215.9
Accumulated FDI since 1982				4.0	5.9	8.2	11.4	14.8	18.2	22.6	33.8	61.3	95.1	130.9	171.1	215.3	259.1	297.8	336.2	380.5	433.2	486.7
Accumulated capital flight (E&O) since 1982				0.4	1.3	2.7	3.7	3.6	6.7	13.5	21.7	31.5	41.3	59.1	74.7	91.6	108.2	123.0	134.9	139.8	132.0	113.6
Accumulated official foreign exchange reserves	7.0	8.9	8.2	2.6	2.1	2.9	3.4	5.6	11.1	21.7	19.4	21.2	51.6	73.6	105.0	139.9	145.0	154.7	165.6	212.2	286.4	403.3
External debt				15.8	21.5	30.2	40.0	41.3	52.6	60.6	69.3	83.6	92.8	106.6	116.3	131.0	146.0	151.8	145.7	170.1	168.5	
Accumulated CA since 1982 as % of GDP				0.2	-2.2	-1.9	-2.5	-3.2	-0.6	2.7	3.6	0.9	2.4	2.1	2.7	5.7	8.4	9.7	10.9	11.6	13.8	15.4
Accumulated FDI since 1982 as % of GDP				1.3	2.0	2.5	2.8	3.3	4.7	5.6	7.0	10.2	17.5	18.7	20.9	23.8	27.0	30.0	31.1	32.9	35.1	34.6
Accumulated capital flight (E&O) since 1982 as % of GDP				0.1	0.4	0.8	0.9	0.8	1.7	3.3	4.5	5.2	7.6	8.4	9.1	10.1	11.3	12.4	12.5	12.1	10.7	8.1
Official reserves as % of GDP				0.9	0.7	0.9	0.8	1.2	2.8	5.3	4.0	3.5	9.5	10.5	12.8	15.5	15.1	15.6	15.3	18.3	23.2	28.7
External debt as % of GDP				5.20	7.30	9.40	10.00	9.20	13.50	14.90	14.40	13.90	17.10	15.20	14.20	14.50	15.20	15.30	13.50	14.70	13.7	

Source: Statistical Yearbook of China, 2002 and website of People's Bank of China.

Table 2. Foreign Direct Investment in PRC: Sectoral Distribution in 1999-2001						
Sector	1999	2000	2001	1999	2000	2001
	Value in US$ million			Share in percentage		
National Total	40,319	40,715	46,878	100.0	100.0	100.0
Manufacturing	22,603	25,844	30,907	56.1	63.5	65.9
Real Estate Management	5,588	4,658	5,137	13.9	11.4	11.0
Social Services	2,551	2,185	2,595	6.3	5.4	5.5
Electric Power, Gas and Water Production and Supply	3,703	2,242	2,273	9.2	5.5	4.8
Wholesale & Retail Trade and Catering Services	965	858	1,169	2.4	2.1	2.5
Transport, Storage, Post and Telecommunication services	1,551	1,012	909	3.8	2.5	1.9
Farming, Forestry, Animal Husbandry and Fishery	710	676	899	1.8	1.7	1.9
Mining and Quarrying	557	583	811	1.4	1.4	1.7
Construction	917	905	807	2.3	2.2	1.7
Scientific Research and Polytechnical Services	110	57	120	0.3	0.1	0.3
Health Care, Sports and Social Welfare	148	106	119	0.4	0.3	0.3
Education, Culture and Arts, Radio, Film and Television	61	54	36	0.2	0.1	0.1
Banking and Insurance	98	76	35	0.2	0.2	0.1
Geological Prospecting and Water Conservancy	5	5	10	0.0	0.0	0.0
Other Sectors	753	1,453	1,051	1.9	3.6	2.2
Source: Statistical Yearbook of China, 2002.						

Table 3. FDI and Trade Patterns by Province (Ranked by Provincial FDI amount in 2001)											
Province	Population (2001, million)	GDP (2001, current price, US$ billion)	FDI (2001, US$ million)	Population share (2001, %)	GDP share (2001, %)	FDI share (2000-2001 average, %)	Trade sahre (2000-2001 average, %)	Trade contribution by FIEs (2000-2001 average, %)	FDI as % of Fixed Capital Formation (2001, %)	FDI per capita (2001, US$)	GDP per capita (2001, current price, US$)
National Total	**1,276**	**1,286**	**46,367**	**100.0**	**100.0**	**100.0**	**100.0**	**50.4**	**23.7**	**36**	**1,008**
Guangdong	78	128	11,932	6.1	10.0	25.7	36.1	53.6	75.0	153	1,648
Jiangsu	74	115	6,915	5.8	8.9	14.9	10.5	62.1	49.6	94	1,558
Shanghai	16	60	4,292	1.3	4.6	9.3	11.7	60.8	49.7	266	3,696
Fujian	34	51	3,918	2.7	4.0	8.5	4.8	61.4	80.9	114	1,490
Shandong	90	114	3,521	7.1	8.8	7.6	6.2	49.8	27.5	39	1,258
Liaoning	42	61	2,516	3.3	4.7	5.4	4.2	59.6	32.0	60	1,446
Zhejiang	46	81	2,212	3.6	6.3	4.8	7.0	31.0	16.7	48	1,762
Tianjin	10	22	2,133	0.8	1.7	4.6	3.6	79.2	51.3	212	2,208
Beijing	14	34	1,768	1.1	2.7	3.8	5.3	31.7	26.8	128	2,479
Top 9 by FDI	**404**	**666**	**39,207**	**31.7**	**51.8**	**84.6**	**89.4**	**54.0**	**43.3**	**97**	**1,647**
Hubei	60	56	1,189	4.7	4.4	2.6	0.8	29.3	14.3	20	940
Hunan	66	48	810	5.2	3.7	1.7	0.6	17.5	15.9	12	728
Hebei	67	67	670	5.2	5.2	1.4	1.1	29.9	6.6	10	1,003
Sichuan	86	53	582	6.8	4.1	1.3	0.6	21.0	7.1	7	617
Hainan	8	7	467	0.6	0.5	1.0	0.3	45.8	35.1	59	826
Henan	96	68	457	7.5	5.3	1.0	0.7	18.0	5.7	5	711
Jiangxi	42	26	396	3.3	2.0	0.9	0.4	15.5	14.5	9	626
Guangxi	48	27	384	3.8	2.1	0.8	0.4	23.2	11.6	8	561
Shaanxi	37	22	352	2.9	1.7	0.8	0.5	14.3	6.1	10	607
Heilongjiang	38	43	341	3.0	3.3	0.7	0.8	11.4	4.3	9	1,126
Jilin	27	24	338	2.1	1.9	0.7	0.7	40.1	8.5	13	910
Anhui	63	40	337	5.0	3.1	0.7	0.7	26.4	7.0	5	626
Middle 12 by FDI	**637**	**482**	**6,322**	**49.9**	**37.4**	**13.6**	**7.7**	**24.4**	**11.4**	**10**	**756**
Chongqing	31	21	256	2.4	1.6	0.6	0.4	16.1	8.3	8	681
Shanxi	33	21	234	2.6	1.7	0.5	0.6	11.5	5.9	7	655
Inner Mongolia	24	19	107	1.9	1.4	0.2	0.5	7.9	3.6	5	784
Gansu	26	13	74	2.0	1.0	0.2	0.2	9.0	2.1	3	502
Yunnan	43	25	65	3.4	1.9	0.1	0.4	10.1	1.3	2	583
Qinghai	5	4	36	0.4	0.3	0.1	0.0	6.6	2.6	7	693
Guizhou	38	13	28	3.0	1.0	0.1	0.2	7.0	0.9	1	344
Xinjiang	19	18	20	1.5	1.4	0.0	0.5	4.3	0.4	1	954
Ningxia	6	4	17	0.4	0.3	0.0	0.1	11.6	1.5	3	639
Tibet	3	2	-	0.2	0.1	-	0.0	3.2	0.0	-	636
Bottom 10 by FDI	**226**	**139**	**838**	**17.7**	**10.8**	**1.8**	**2.9**	**8.7**	**2.7**	**4**	**614**
Source: Statistical Yearbook of China, 2002.											

Table 4. PRC's Inward FDI by Source Region (USD Billion)										
	1994	1995	1996	1997	1998	1999	2000	2001	Sum 1994-2001	Share 1994-2001
Total FDI	33.8	37.5	41.7	45.3	45.5	40.3	40.7	46.9	331.6	100.0%
Hong Kong, China	19.7	20.1	20.7	20.6	18.5	16.4	15.5	16.7	148.1	44.7%
Macao	0.5	0.4	0.6	0.4	0.4	0.3	0.3	0.3	3.3	1.0%
HK & Macao	20.2	20.5	21.3	21.0	18.9	16.7	15.8	17.0	151.4	45.7%
BVI	0.1	0.3	0.5	1.7	4.0	2.7	3.8	5.0	18.3	5.5%
Cayman Is.	0.0	0.0	0.1	0.2	0.3	0.4	0.6	1.1	2.6	0.8%
Pacific Is.	0.0	0.1	0.1	0.2	0.2	0.2	0.4	0.6	1.9	0.6%
West Samoa	0.0	0.1	0.1	0.2	0.1	0.2	0.3	0.5	1.5	0.4%
Mauritius	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.9	0.3%
Bermuda	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.9	0.3%
Panama	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.4	0.1%
Offshore financial centers	0.3	0.9	1.8	2.5	9.0	3.8	5.5	7.9	31.7	9.6%
Taipei,China Prov.	3.4	3.2	3.5	3.3	2.9	2.6	2.3	3.0	24.1	7.3%
Republic of Korea	0.7	1.4	1.4	2.1	1.8	1.3	1.5	2.2	12.3	3.7%
Singapore	1.2	1.9	2.2	2.6	3.4	2.6	2.2	2.1	18.2	5.5%
Australia	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	2.1	0.6%
Canada	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	2.5	0.8%
Malaysia	0.2	0.3	0.5	0.4	0.3	0.2	0.2	0.3	2.3	0.7%
New Zealand	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.1%
Asia Pacific	5.9	7.2	8.1	9.1	9.1	7.3	6.8	8.4	61.9	18.7%
USA	2.5	3.1	3.4	3.2	3.9	4.2	4.4	4.4	29.2	8.8%
Japan	2.1	3.1	3.7	4.3	3.4	3.0	2.9	4.3	26.8	8.1%
EU	1.5	2.1	2.7	4.2	4.0	4.5	4.5	4.2	27.7	8.4%
Developed countries	6.1	8.3	9.9	11.7	11.3	18.9	11.8	13.0	90.9	27.4%
Source: Extracted from *China Foreign Economic Statistical Yearbook 1998 and 2002.*										

Table 5. Top 15 Suppliers of PRC's FDI in 2002

Country/Region	Number of Projects	% of Total Projects	Invested Value (USD Billion)	% of Top 15 Total Invested Value	Average Investment per Project (USD Thoursand)	Rank by Invested Value	Rank by Size of the Project
Top 15 Total	424,196	100	44.8	100	105.6		
Hong Kong, China	210,876	49.71	20.5	45.73	97.2	1	11
USA	37,280	8.79	4.0	8.9	107.0	2	10
Japan	25,147	5.93	3.6	8.11	144.5	3	8
Taipei,China Prov.	55,691	13.13	3.3	7.39	59.5	4	14
BVI	6,659	1.57	2.4	5.44	366.2	5	3
Singapore	10,727	2.53	2.1	4.79	200.2	6	7
Republic of Korea	22,208	5.24	1.5	3.39	68.4	7	12
UK	3,418	0.81	1.1	2.39	312.9	8	4
Germany	3,053	0.72	0.8	1.78	261.8	9	6
France	2,033	0.48	0.6	1.24	272.7	10	5
Macao	7,827	1.85	0.5	1.07	61.0	11	13
Netherlands	1,065	0.25	0.4	0.97	407.3	12	2
Cayman Islands	706	0.17	0.4	0.85	538.7	13	1
Canada	6,040	1.42	0.3	0.75	55.6	14	15
Malaysia	2,538	0.6	0.3	0.63	111.7	15	9
Others	28,928	6.82	2.9	6.55	101.5		

Source: MOFTEC "China Investment Guide" website.

Table 6. Foreign Invested Enterprises in PRC: by Size of Utilized FDI and Legal Types in 2002					
Legal Types of FIEs	Number of FIEs	Share in Number of Projects (5)	Utilized FDI (USD Billion)	Share in Utilized FDI (%)	Size of FIEs by Utilized FDI (USD Thousand)
All	424,196	100.0	44.8	100.0	105.6
Joint Ventures	225,883	53.3	19.2	42.9	85.1
Contractual Joint Ventures	52,965	12.5	8.3	18.5	156.3
Wholly Foreign owned Enterprises	145,165	34.2	16.6	37.0	114.1
Joint Exploration	183	0.0	0.7	1.6	4024.0
Source: MOFTEC "China Investment Guide" website.					

Table 7. Foreign Invested Enterprises in PRC: by Sizes and Selected Source Regions during 1994-2001									
Size by Utilized FDI	Selected Source Regions	1994	1995	1996	1997	1998	1999	2000	2001
Utilized FDI per Project (USD Thousand)	All	71.2	101.4	169.9	215.5	229.6	238.3	182.2	179.3
	Hong Kong, China	79.9	116.7	198.9	245.5	237.1	277.3	215.3	208.8
	Japan	68.8	105.5	211.2	308.6	283.8	254.8	180.7	215.4
	BVI		180.8	261.0	553.9	683.3	502.6	331.3	333.5
	CI		86.6	278.7	528.1	790.8	994.6	382.7	547.0
Utilized FDI per FIE (USD Thousand)	All	238.1	273.6	297.5	319.7	339.9	366.5	405.8	432.5
	Hong Kong, China			299.7	320.1	336.8	367.7	396.2	429.4
	Japan			322.7	331.1	355.3	370.4	421.8	433.6
	BVI			1748.1	1628.5	1467.7	1279.5	1212.9	1134.2
	CI			3609.4	4166.3	3799.3	3191.6	3016.4	2413.6
Source: MOFTEC "China Investment Guide" website.									

Table 8. The Impact of FDI on the Chinese Economy:1985-2002						
Value Unit:USD100Millions						
	Utilized FDI	Utilized FDI /GDP at Official Exchange Rate (%)	Contribution to Gross Industrial Output Value by FIEs (%)	Contribution to Exports by FIEs (%)	Contribution to Urban Employment by FIEs (%)	Contrituion to PRC's Total Industrial and Commercial Taxes by FIEs (%)
1985	4.65	0.6	--	1.20	0.05	--
1986	7.26	0.6	--	1.60	0.10	--
1987	8.45	0.7	--	2.50	0.20	--
1988	3.19	0.8	--	3.70	0.20	--
1989	3.39	0.8	--	9.10	0.30	--
1990	3.49	0.9	2.28	12.60	0.40	--
1991	4.37	1.1	5.29	16.75	1.00	--
1992	11.01	2.3	7.09	20.44	1.30	4.25
1993	27.52	4.6	9.15	27.51	1.60	5.71
1994	33.77	6.2	11.26	28.69	2.20	8.51
1995	37.52	5.4	14.31	31.51	2.70	10.96
1996	41.73	5.1	15.14	40.71	2.70	11.87
1997	45.26	5.0	18.57	41.00	2.70	13.16
1998	45.46	4.8	24.74	44.06	2.90	14.38
1999	40.32	4.0	27.75	45.47	2.80	15.99
2000	40.72	3.8	22.51	47.93	2.90	17.50
2001	46.88	4.0	28.05	50.06	2.80	19.01
2002	52.74	4.2	33.37	52.20	3.00	20.52
Source: Extracted from *China Foreign Economic Statistical Yearbook 1998 and 2002.*						

Table 9. PRC's Capital Flight (USD Billion)																	
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Low estmate of PRC's capital flight	1.5	3.8	3.4	-1.1	2.0	6.6	-0.3	19.6	9.9	13.0	21.7	20.0	55.3	85.3	73.0	49.5	-0.9
Average estimate of PRC's capital flight	3.7	6.3	8.5	7.2	11.3	21.0	17.7	37.8	37.8	39.4	47.9	50.4	85.6	115.6	102.0	90.4	24.2
High estimates of PRC's capital flight	5.9	8.7	13.6	15.5	20.7	35.4	35.6	56.0	65.6	65.5	74.1	80.9	115.9	145.9	131.1	131.4	49.4
PRC's GDP at offical exchange rate	304.4	294.2	321.3	400.0	448.9	389.3	406.4	481.4	601.2	542.7	701.3	818.9	903.2	960.8	992.4	1,079.5	1,157.2
Low estmate of PRC's capital flight/GDP	0.5%	1.3%	1.1%	-0.3%	0.4%	1.7%	-0.1%	4.1%	1.6%	2.4%	3.1%	2.4%	6.1%	8.9%	7.4%	4.6%	-0.1%
Average estimate of PRC's capital flight/GDP	1.2%	2.1%	2.7%	1.8%	2.5%	5.4%	4.3%	7.8%	6.3%	7.3%	6.8%	6.2%	9.5%	12.0%	10.3%	8.4%	2.1%
High estimates of PRC's capital flight/GDP	1.9%	3.0%	4.2%	3.9%	4.6%	9.1%	8.8%	11.6%	10.9%	12.1%	10.6%	9.9%	12.8%	15.2%	13.2%	12.2%	4.3%
FDI flows into PRC	1.7	1.9	2.3	3.2	3.4	3.5	4.4	11.2	27.5	33.8	35.8	40.2	44.2	43.8	38.8	38.4	44.2
FDI flows into PRC/GDP	0.5%	0.6%	0.7%	0.8%	0.8%	0.9%	1.1%	2.3%	4.6%	6.2%	5.1%	4.9%	4.9%	4.6%	3.9%	3.6%	3.8%
Average estimate of capital flight/FDI	221%	334%	369%	225%	334%	602%	405%	339%	137%	117%	134%	126%	194%	264%	263%	236%	55%

Source: The low, average and high estimates of PRC's capital flight is taken from Table 1 of the article "Capital flight from China: 1984-2001" by Frank R. Gunter, China Economic Review 15 (2004) 63-85. Other data is from Table 1 of this paper or calculated by the author.

Table 10.1 Round Tripping FDI to PRC: The Case of U.S. (USD Million)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Standard Deviation	Weighted Average
A = FDI from US to PRC as Reported by US	74	556	1232	261	933	1250	1497	1947	1817	1225	914		
B = FDI from US to PRC as Reported by PRC	511	2063	2491	3083	3443	3239	3898	4216	4384	4433	5424		3381
C = B-A (Unverifiable part of the FDI flows from US to PRC)	437	1507	1259	2822	2510	1989	2401	2269	2567	3208	4510		2316
D = (B-A)/B	85.5%	73.1%	50.5%	91.5%	72.9%	61.4%	61.6%	53.8%	58.6%	72.4%	83.1%	13.5%	68.5%
High estimate of the average ratio of round tripping FDI from US to PRC													**68.5%**
Middle estimate of the average ratio of round tripping FDI from US to PRC													**61.8%**
Low estimate of the average ratio of round tripping FDI from US to PRC													**55.1%**

Source: US Department of Commerce, Bureau of Economic Analysis and China National Bureau of Statistics.

Table 10.2. Round Tripping FDI to PRC: The Case of Germany (USD Million)

	1998	1999	2000	2001	Standard Deviation	Weighted Average
FDI from Germany to PRC as Reported by Germany (Million Euro)	578	631	889	1050		
Dollar/Euro Exchange Rate (Average over the year)	1.09	1.02	0.95	0.85		
A = FDI from Germany to PRC as Reported by Germany (USD Million)	628	646	847	890		
B = FDI from Germany to PRC as Reported by PRC	737	1373	1041	1213		1091
C = B-A (Unverifiable part of the FDI flows from Germany to PRC)	108	727	194	323		338
D = (B-A)/B	14.7%	52.9%	18.7%	26.6%	17.2%	31.0%
High estimate of the average ratio of round tripping FDI from Germany to PRC						**31.0%**
Middle estimate of the average ratio of round tripping FDI from Japan to PRC						**22.4%**
Low estimate of the average ratio of round tripping FDI from Germany to PRC						**13.8%**

Source: Deutsche Bundesbank.

Table 10.3 Round Tripping FDI to PRC: The Case of Japan (USD Million)

	1996	1997	1998	1999	2000	Standard Deviation	Weighted Average
FDI from Japan to PRC as Reported by Japan (100 Million Yen)	2529	2251	1710	414	1010		
Yen/Dollar Exchange Rate (Average over the year)	109.18	121.76	131.19	113.22	108.34		
A = FDI from Japan to PRC as Reported by Japan (USD Million)	2316	1849	1304	366	932		
B = FDI from Japan to PRC as Reported by PRC	3679	4326	3400	2973	2916		3459
C = B-A (Unverifiable part of the FDI flows from Japan to PRC)	1363	2477	2096	2607	1984		2106
D = (B-A)/B	37.0%	57.3%	61.7%	87.7%	68.0%	18.3%	60.9%
High estimate of the average ratio of round tripping FDI from Japan to PRC							**60.9%**
Middle estimate of the average ratio of round tripping FDI from Japan to PRC							**51.7%**
Low estimate of the average ratio of round tripping FDI from Japan to PRC							**42.6%**

Source: Bank of Japan.

Table 10.4 Round Tripping FDI to PRC: The Case of Republic of Korea (USD Million)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Standard Deviation	Weighted Average
FDI from Republic of Korea to PRC as Reported by Republic of Korea	264	633	838	893	723	677	348	605	541	888	1350		
B = FDI from Republic of Korea to PRC as Reported by PRC	374	723	1043	1358	2142	1803	1275	1490	2152	2721	4490		1779
C = B-A (Unverifiable part of the FDI flows from Republic of Korea to PRC)	110	90	205	465	1419	1126	927	885	1611	1833	3140		1074
D = (B-A)/B	29.4%	12.4%	19.7%	34.2%	66.2%	62.5%	72.7%	59.4%	74.9%	67.4%	69.9%	23.0%	60.3%
High estimate of the average ratio of round tripping FDI from Republic of Korea to PRC													**60.3%**
Middle estimate of the average ratio of round tripping FDI from Republic of Korea to PRC													**48.8%**
Low estimate of the average ratio of round tripping FDI from Republic of Korea to PRC													**37.3%**

Source: The Export-Import Bank of Korea.

Table 10.5. Round Tripping FDI to PRC: The Case of Taipei,China Province (USD Million)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Standard Deviation	Weighted Average
FDI from Taipei,China to PRC as Reported by Taipei,China	174	247	1140	962	1093	1229	1615	1519	1253	2607	2784		
B = FDI from Taipei,China to PRC as Reported by PRC	2783	5543	9965	5395	5777	5141	2814	2982	3374	2293	2980		4459
C = B-A (Unverifiable part of the FDI flows from Taipei,China to PRC)	2609	5296	8825	4433	4684	3912	1199	1463	2121	-314	196		3129
D = (B-A)/B	93.7%	95.5%	88.6%	82.2%	81.1%	76.1%	42.6%	49.1%	62.9%	-13.7%	6.6%	36.2%	70.2%
High estimate of the average ratio of round tripping FDI from Taipei,China to PRC													**70.2%**
Middle estimate of the average ratio of round tripping FDI from Taipei,China to PRC													**52.1%**
Low estimate of the average ratio of round tripping FDI from Taipei,China to PRC													**34.0%**

Source: from Table 6 in Tain-Jy Chen's article on "Will Taiwan Be Marginalized by China?", Asian Economic Papers, Volume 2, Number 2, page 84, 2003.

Table 10.6 Round Tripping FDI to PRC: The Case of Singapore (USD Million)						
	1998	1999	2000	2001	Standard Deviation	Weighted Average
FDI from Singapore to PRC as Reported by Singapore (Million Sinapore Dollar)	1709	2110	1441	832		
Dollar/Sinapore Dollar Exchange Rate (Average over the year)	0.59	0.60	0.59	0.56		
A = FDI from Singapore to PRC as Reported by Singapore (USD Million)	1013	1256	843	463		
B = FDI from Singapore to PRC as Reported by PRC	3404	2642	2172	2144		2591
C = B-A (Unverifiable part of the FDI flows from Singapore to PRC)	2391	1387	1329	1681		1697
D = (B-A)/B	70.2%	52.5%	61.2%	78.4%	11.2%	65.5%
High estimate of the average ratio of round tripping FDI from Singapore to PRC						**65.5%**
Middle estimate of the average ratio of round tripping FDI from Japan to PRC						**59.9%**
Low estimate of the average ratio of round tripping FDI from Singapore to PRC						**54.3%**
Source: Singapore Department of Statistics and Statistical Yearbook of China.						

Table 10.7 Unverifiable FDI: The Case of U.S. in 2000

Country	FDI to US reported by Source Country	Unit of Left Column	Avearge Exchange Rate of Dollar to other currencies	FDI to US reported by Source Country in US$ Million	FDI Reported by US in US$ Million	Over or under reporting by U.S.
Mexico	5062	million US$	1	5,062	5,062	0%
Brazil	106	million US$	1	106	106	0%
Finland	4417	million Euro	0,957	4,227	4,407	4%
Canada	38987	million Canadian$	0,6706	26,145	27,258	4%
Hong Kong, China	2900	million HK$	0,1282	372	669	44%
UK	24249	million pound	1,5309	37,123	82,652	55%
Japan	1520900	million yen	0,0093899	14,281	7,820	-83%
Germany	30000	million Euro	0,957	28,710	14,054	-104%
Sum of the above				116,025	142,028	18%

Source: U.S. Department of Commerce, Bureau of Economic Analsysis and United Nations Conference on Trade and Development.

Table 11. IPOs by PRC Companies through the Main Board of the Hong Kong Stock Exchange (USD billion)						
Year	IPO Total	H shares*	Red chips*	Others	IPO by H and Red	Share of IPO by H and Red
1991	0.9			0.9		
1992	1.5		0.2	1.3		
1993	3.7	1.0	0.1	2.6	1.2	31.2%
1994	2.2	1.3	0.2	0.8	1.5	65.8%
1995	1.0	0.3	0.2	0.6	0.5	44.2%
1996	4.0	0.9	0.4	2.7	1.3	32.9%
1997	10.5	4.1	5.1	1.3	9.2	87.5%
1998	0.8	0.3	0.0	0.5	0.3	37.2%
1999	2.0	0.5	0.3	1.2	0.8	40.2%
2000	15.0	6.6	5.7	2.8	12.3	81.7%
2001	2.8	0.7	1.5	0.5	2.3	81.6%
2002	5.8	2.2	2.7	0.9	4.8	84.1%
2003-3Q	1.8	1.1	0.0	0.8	1.1	57.9%
Source: HKEx and SFC.						

Table 12. Top 10 IPOs in Hong Kong, China: 1997-2002 (USD billion)				
Company	Listing date	Total Funds Raised	Funds Raised from HK	Share of Funds Raised from HK
China Unicom	2000/6/22	5,59	0,24	4,3%
China Mobile	1997/10/23	4,19	0,38	9,0%
Sinopec	2000/10/19	3,42	0,17	5,0%
PetroChina	2000/4/7	2,86	0,14	5,0%
BOC Hong Kong	2002/7/25	2,63	0,83	31,7%
China Telecom	2002/11/15	1,42	0,07	5,0%
CNOOC	2001/2/28	1,42	0,06	4,4%
MTR (local)	2000/10/5	1,38	0,72	52,2%
China South Air	1997/7/31	0,71	0,04	6,0%
i-Cable Comm (Local)	1999/11/24	0,55	0,05	8,7%
Source: HKEx and SFC.				

Table 13. Hong Kong, China's Round Tripping FDI Flows into PRC 1998-2002 (USD Billion)							
	1998	1999	2000	2001	2002	Standard Deviation	Weighted Average 1998-2002
A1 = FDI from Hong Kong, China to PRC as reported by Hong Kong, China	6.9	10.1	46.3	8.5	15.9		17.5
A2 = FDI from Hong Kong, China to PRC excluding the communications sector as reported by Hong Kong, China (A1-A4)	4.2	7.8	13.1	3.9	4.5		6.7
A3 = FDI from Hong Kong, China to PRC correcting over-reporting in communications sector by Hong Kong, China (A1-A4+B2)	5.9	9.3	14.1	4.8	5.4		7.9
A4 = FDI from Hong Kong, China to PRC in communications sector as reported by Hong Kong, China	2.7	2.3	33.2	4.6	11.4		10.8
B1 = FDI from Hong Kong, China to PRC as reported by PRC	18.5	16.4	15.4	16.7	17.86		17.0
B2 = PRC's total FDI inflow in the transportation, storage, post and telecommunication services	1.6	1.6	1.0	0.9	0.9		1.2
C1 = B1-A1 (Type 1 of the unverifiable FDI from Hong Kong, China)	11.6	6.3	-30.9	8.2	2.0		-0.6
D1 = (B1-A1)/B1	62.5%	38.6%	-200.7%	49.1%	11.0%		-3.4%
C2 = B1-A2 (Type 2 of the unverifiable FDI from Hong Kong, China)	14.3	8.6	2.3	12.8	13.4		10.3
D2 = (B1-A2)/B1	77.1%	52.6%	14.9%	76.6%	74.8%		60.5%
C3 = B1-A3 (Type 3 of unverifiable from Hong Kong, China)	12.6	7.1	1.3	11.9	12.4		9.1
D3 = (B1-A3)/B1	68.2%	43.1%	8.3%	71.2%	69.7%	27.1%	53.4%
High estimate of the average ratio of round tripping FDI from Hong Kong, China to PRC							**53.4%**
Middle estimate of the average ratio of round tripping FDI from Hong Kong, China to PRC							**39.9%**
Low estimate of the average ratio of round tripping FDI from Hong Kong, China to PRC							**26.3%**
Source: PRC FDI statistics from the Statistical Yearbook of China; Hong Kong, China FDI Statistics from External Direct Investment Statistics of Hong Kong.							

Table 14. Round Tripping FDI through Offshore Centres: The Case of Hong Kong, China

	1998	1999	2000	2001	2002	Standard Deviation	Weighted Average1998-2002
FDI stock	223.5	403.8	455.2	419.2	336.2		367.6
FDI stock excluding round tripping	130.4	260.4	288.1	285.2	244.0		241.6
Round tripping FDI stock	93.1	143.4	167.2	133.9	92.2		126.0
Ratio of round tripping FDI Stock	41.7%	35.5%	36.7%	32.0%	27.4%		34.3%
FDI flow into Hong Kong, China	14.7	24.4	61.9	23.8	9.7		26.9
FDI flow excluding rround tripping	8.7	17.9	32.0	20.3	1.7		16.1
Round tripping FDI flows	5.9	6.6	29.9	3.4	8.0		10.8
Ratio of round tripping FDI flows	40.4%	27.0%	48.3%	14.4%	82.6%	25.9%	40.1%
High estimate of round tripping FDI flows							**53.0%**
Middle estimate of round tripping FDI flows							**40.1%**
Low estimate of round tripping FDI flows							**27.2%**

Source: Derived from External Direct Investment Statistics of Hong Kong.

Table 15. Round-Tripping FDI to PRC: Summary of Estimated Amount and Ratio

Region	FDI in 2000 (USD M)	Share of PRC's FDI in 2000	RT-Ratio: High	RT-Ratio Middle	RT-Ratio Low	RT-FDI: High (USD M)	RT-FDI: Middle (USD M)	RT-FDI: Low (USD M)
U.S.	4,384.00	10.8%	68.5%	61.8%	55.1%	3,003	2,709	2,416
Germany	1,041.00	2.6%	31.0%	22.4%	13.8%	323	233	144
Japan	2,916.00	7.2%	60.9%	51.7%	42.6%	1,776	1,508	1,242
Republic of Korea	1,490.00	3.7%	60.3%	48.8%	37.3%	898	727	556
Taipei,China Province	2,293.00	5.6%	70.2%	52.1%	34.0%	1,610	1,195	780
Singapore	2,172.00	5.3%	65.5%	59.9%	54.3%	1,423	1,301	1,179
Hong Kong, China SAR	15,400.00	37.8%	53.4%	39.9%	26.3%	8,224	6,145	4,050
Sub-total of the above 7	29,696.00	72.9%	58.1%	46.5%	34.9%	17,256	13,817	10,366
The rest	11,019.00	27.1%	31.0%	22.4%	13.8%	3,416	2,468	1,521
All Sources	40,715.00	100.0%	50.8%	40.0%	29.2%	20,672	16,286	11,887

Source: Previous tables and author's calculation.

Table 16. PRC's Round Tripping FDI as Compared with PRC's Capital Flight (USD Billion)									
	1994	1995	1996	1997	1998	1999	2000	2001	Weighted Average in 1994-2001
A. PRC's total inward FDI	33.8	37.5	41.7	45.3	45.5	40.3	40.7	46.9	41.5
B1. High estimate of PRC's capital flight	65.5	74.1	80.9	115.9	145.9	131.1	131.4	49.4	99.3
B2. Middle estimate of PRC's capital flight	39.4	47.9	50.4	85.6	115.6	102.0	90.4	24.2	69.5
B3. Low estimate of PRC's capital flight	13.0	21.7	20.0	55.3	85.3	73.0	49.5	-0.9	39.6
C1. High estimate of average round triping FDI (C1 = A * 50.8%)	17.2	19.1	21.2	23.0	23.1	20.5	20.7	23.8	21.1
C2.Middle estimate of average round tripping FDI (C2 = A*40.0%)	13.5	15.0	16.7	18.1	18.2	16.1	16.3	18.8	16.6
C3. Low estimate of average round triping FDI (C3 = A * 29.2%)	9.9	11.0	12.2	13.2	13.3	11.8	11.9	13.7	12.1
D1 = C1/B1 (round tripping FDI/capital flight for high estimates)	26.2%	25.7%	26.2%	19.8%	15.8%	15.6%	15.7%	48.2%	21.2%
D2 = C2/B2 (round tripping FDI/capital flight for middle estimates)	34.3%	31.3%	33.1%	21.1%	15.7%	15.8%	18.0%	77.3%	23.9%
D3 = C3/B3 (round tripping FDI/capital flight for low estimates)	75.6%	50.6%	60.9%	23.9%	15.6%	16.1%	24.0%	-1452.3%	30.6%
Source: Capital flight data from Table 9; Round tripping FDI ratios from Table 15.									