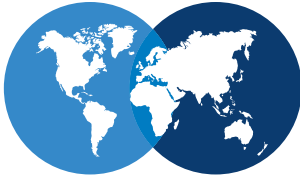


GLOBAL FINANCIAL INTEGRITY

Illicit Financial Flows from China and the Role of Trade Misinvoicing



Dev Kar and Sarah Freitas
October 2012



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Executive Summary

Section I

Over the period 2000 to 2011, cumulative illicit financial flows from China totaled a massive US\$3.79 trillion, if one were to exclude the country's intra-regional trade with Hong Kong and Macao. We found that if adjustments for such trade were not made, the resulting outflows due to trade misinvoicing were significantly understated due to trade data distortions. The sharp rise in illicit outflows, from US\$172.6 billion in 2000 to US\$602.9 in 2011, implied an increase of about 7.2 percent per year in inflation-adjusted terms, which was just below the 10.2 percent average rate of economic growth.

While our estimates are based on gross outflows, they do not differ much from the net of illicit inflows from outflows—a methodology with which we disagree with because there is no such thing as “net crime.” Nevertheless, even if illicit inflows are netted from illicit outflows, China still suffered net illicit outflows of US\$3.75 trillion over this period. One of the adverse effects of illicit flows from China has been a worsening of the country's income inequality as the rich get richer through tax evasion (which comprises by far the major portion of such outflows) and through using the world's shadow financial system to shelter and multiply their illicit wealth.

Misinvoiced trade between Chinese companies and the United States increased from US\$48.8 billion in 2000 to US\$59.0 billion in 2011. The volume of trade misinvoicing between mainland China and the United States rose to US\$72.0 billion before the financial crisis of 2008, but has declined since then, probably as a result of lower growth in bilateral trade between the countries.

The commodity groupings most susceptible to trade misinvoicing include UN Commodity Trade Statistics Database (COMTRADE) group 84 (nuclear reactors, boilers, machinery, etc.) and group 85, (electrical and electronic equipment), with the sub-group for electronic circuits (HS Code 854231) showing the largest cumulative illicit outflows (US\$84.1 billion). Trade misinvoicing related to the sub-group for mobile phones (HS Code 851712) increased at the fastest pace from 2007-2011. This is consistent with previous studies at GFI which indicate that the more specialized a product, the easier it is to misinvoice.

Section II

A significant part of the illicit outflows from China round-trip back to the country as recorded foreign direct investment (FDI). Such round-tripped FDI is given preferential treatment vis-à-vis domestic capital such as tax concessions, government guarantee of loans extended by foreign corporations to domestic firms, land and other facilities at concessional rates, etc.

However, a lot of licit money also leaves China as FDI in places like Hong Kong and the British Virgin Islands (BVI), only to then be laundered into another entity and reinvested in China as FDI from Hong Kong or the BVI. It is a complex money laundering scheme used in order to take advantage of favorable regulations for FDI and to allow high net worth individuals (HNWIs) to secretly accumulate wealth in contravention of government regulations and oversight.

Mainland China and Hong Kong are the largest foreign direct investors in each other's economy, with the BVI serving as the 2nd biggest foreign direct investor in both mainland China and Hong Kong, and BVI serving as the largest recipient of FDI from Hong Kong. Indeed, it appears that while the BVI invested a massive \$213.7 billion in mainland China in 2010, nearly all reciprocal investment in the BVI from the Chinese mainland was routed through Hong Kong. The BVI has a population of about 28,000 and a GDP of only around US\$1.1 billion, so it is hard to see how it can undertake such massive FDI outflows unless funds were routed back in via Hong Kong, and/or subsidized by illicit funds.

Of the roughly US\$2.83 trillion that flowed illicitly out of China from 2005-2011, US\$595.8 billion wound up as cash deposits or financial assets (such as stocks, bonds, mutual funds, and derivatives) in tax havens. On average, roughly 52.4 percent of investments that flowed into tax havens from China during 2005-2011 were illicit while 47.6 percent were licit.

I. Illicit Financial Flows from China and their Implications

(i) Introduction

Illicit financial flows or illegal capital flight involve money that is illegally earned, transferred, or utilized. While the funds could be earned through bribery, kickbacks, or other illicit activities, they may well be earned through legitimate means. It is the transfer in contravention of capital controls or the nonpayment of applicable taxes that renders the funds illicit. The methods used by economists to estimate the volume of illicit funds leaving a country make no attempt to link illicit flows with the nature of the source of capital, whether licit or illicit. In fact, there is no method that can apportion total illicit flows into tax evasion, criminal proceeds, or corruption. The survey method, which relies on the opinions of government regulatory agencies, private corporations, and others, can shed some light on the relative importance of these flows in a global context. Such survey results indicate that globally, tax evasion by high-net-worth-individuals (HNWIs) and corporations comprise by far the largest component (around 65 percent) of cross-border illicit flows from developing countries, followed by the proceeds of crime (30 percent) and corruption (5 percent).¹

Research at Global Financial Integrity (GFI), a Washington DC-based research and advocacy group, shows that outflows of illicit capital from developing countries have been a growing problem over the past decade. In order to assess the impact of illicit flows on economic development and poverty alleviation, GFI publishes regular annual updates of the volume and pattern of outflows from developing countries and regions. In addition, country case studies at GFI allow an in-depth analysis of the drivers and dynamics underlying such outflows.

According to the latest annual report, developing countries lost between US\$775 billion and US\$903 billion in 2009, down from the previous report's estimate of US\$1.26 to US\$1.44 trillion in 2008.² The main reason for the falloff in illicit outflows in 2009 was due to the economic downturn, which reduced foreign direct investments, new loans, and trading volumes. In fact, the IMF's *World Economic Outlook* noted that the 2009 decline in export and import volumes were the sharpest since the September 2001 attacks. Nevertheless, GFI finds that illicit outflows from the developing world have increased by at least 10.2 percent per annum over the decade in inflation-adjusted terms.

What drives outflows of illicit capital from a country? GFI studies show that cross-border transfers of illicit capital are propelled by three main types of drivers—macroeconomic, structural, and governance-related. In China's case, large and growing current account surpluses lead to capital outflows, some of which may well be licit capital flight (such as private sector hot money outflows). High and rising inflation could also contribute to illegal capital flight, assuming owners do not wish to see the real value of their holdings decline over time. The widely held perception that the Yuan is under-valued (because of the trade surpluses) may feed into expectations of exchange rate revaluation in the future which could lead to speculative inflows and round-tripped capital (see Section II for a discussion of round-tripping). Structural factors for China include non-inclusive growth, as a result of which there are a larger number of high net worth individuals (HNWIs) who choose to shelter their burgeoning wealth abroad. Another structural factor is increasing trade openness (exports and imports of goods and services as percent of GDP), which provides more opportunities to traders to misinvoice trade as the customs administration struggles to keep pace with rising trade volumes. Governance

¹Baker, Raymond W. (2005). *Capitalism's Achilles Heel: Dirty Money and How to Renew the Free-Market System*, John Wiley & Sons, Inc.

²Kar, Dev and Sarah Freitas (2011). *Illicit Financial Flows From Developing Countries Over the Decade Ending 2009*, Global Financial Integrity, Washington DC.

factors include corruption and weak regulatory systems which are reflected in an expanding underground economy relative to official GDP. The underground economy both drives and is driven by illicit flows.

(ii) The Serious Implications of Illicit Flows

Illicit financial flows are mainly generated and transferred by Chinese residents who are connected to the country's globalized economy. The proceeds of tax evasion, profit-shifting, bribery, kickbacks, trade misinvoicing, income on unreported external assets, and tax breaks on round-tripped illicit funds all accrue to those who are thus connected. To the extent that the government fails to collect applicable taxes, the middle- and low-income groups suffer the consequences.

Tax revenue collection continues to be a persistent challenge in China. Revenue performance of the general government (defined as central plus state and local governments) steadily improved from 13.8 percent of GDP in 2000 to 22.3 percent of GDP in 2011. However, China's revenue falls short of the G-7 group of major advanced economies, which average 36.0 percent of GDP per annum and lags behind emerging and developing countries' average revenue collection of 26.6 percent of GDP.³ Even though China has made significant progress in strengthening social safety nets, the IMF notes that it will likely require more resources over the medium-term to broaden the coverage of the system on a sustainable basis. The Chinese government cannot fail to collect sufficient tax revenues to meet its ambitious spending promises given that its expenditures on the social safety net account for just 5.7 percent of GDP. Economies at comparable levels of development spend, on average, more than twice as much.⁴

Apart from the fact that rampant tax evasion—likely to be the largest component of illicit outflows—have reduced tax revenues, the loss of capital has directly contributed to a worsening of China's income inequality. Around the late 1970s, when the process of economic transition from a closed to an open market system started in China, the country had a relatively egalitarian society. Since then, China's income distribution has become increasingly skewed, with the Gini coefficient—the international standard for measuring income inequality in a country—rising from .31 in 1981 to .47 in 2008.⁵ The rising inequality is also taking a toll on average household consumption, which declined by over 10 percentage points of GDP since the early 1980s.⁶ Indeed, increasing income inequality remains the soft underbelly of China's impressive rise in the world economy and presents a serious challenge for maintaining social and political stability. That income inequality is a sensitive issue is borne by the fact that the government has not released official data on the Gini coefficient since 2000. Officials are doubtless aware that data on household income, which are obtained through government-sponsored surveys, are unlikely to reflect foreign holdings of illicit assets by high net-worth individuals, thereby understating the already bad news regarding income distribution.

(iii) Summary of Methodology

Economists have estimated capital flight from developing countries in several ways. Among these, the World Bank Residual measure adjusted for trade misinvoicing has come to be well-established since its formulation in 1985. Essentially, the method captures net *unrecorded* capital flows which are scaled up or down (i.e., “adjusted”) as

³Tax to GDP ratios are based on World Economic Outlook Database, IMF, April 17, 2012 (link: <http://www.imf.org/external/ns/cs.aspx?id=28>).

⁴*People's Republic of China: Staff Report for the 2012 Article IV Consultation* (2012), IMF Country Report No. 12/195, Box 10.

⁵Ravallion, Martin and Shaohua Chen (2007). *China's (Uneven) Progress Against Poverty*, Journal of Development Economics, 82(1): 1-42.

⁶Aziz, Jahangir and Li Cui (2007). *Explaining China's Low Consumption: The Neglected Role of Household Income*, IMF Working Paper, WP/07/181, International Monetary Fund.

indicated by the deliberate misrepresentation of exports and imports declared in customs invoices. Of course, the resulting capital flows arising from such fraudulent customs declarations are also unrecorded. It is assumed that such unrecorded transfers of capital involve illicit funds because there is no reason why transfers of legitimate capital should go unrecorded. For reasons noted below, GFI studies only consider gross illicit outflows.

The World Bank residual measure captures the gap between a country's recorded source of funds and its use of those funds. There are two main sources of funds for a country—new external debt contracted and net inflows of foreign direct investments. There are also two uses of funds, namely financing the current account deficit (which is essentially the shortfall of exports over imports) and addition to reserve assets. If source of funds exceeds use of funds, unrecorded or illicit capital must have been transferred from the country. Unrecorded capital leakages through the balance of payments tend to capture bribery, kickbacks, and proceeds from other forms of corruption. In case recorded use exceeds recorded source of funds, the country must have received illicit capital which are not netted out of outflows for reasons noted below.

Two types of invoice-faking, or misinvoicing, require adjusting the outflows from the World Bank residual for a comprehensive estimate of total illicit outflows: export under-invoicing and import over-invoicing. Export under-invoicing implies an understatement of a country's reported exports vis-à-vis what partner countries report as having imported from that country. Import over-invoicing indicates an overstatement of imports by a reporting country relative to partner countries' declaration of exports. The methodology used to estimate illicit flows due to trade misinvoicing is based on the Gross Excluding Reversals (GER) method which does not net out illicit inflows from outflows. Furthermore, we use the IMF's Direction of Trade Statistics (DOTS) which captures reporting countries' trade with the world; trade discrepancies are derived by adjusting imports for an insurance and freight factor of 10 percent. This is called imports free-on-board (f.o.b.) which is compared with exports f.o.b.⁷ Trade misinvoicing allows the clandestine acquisition of foreign assets and facilitates money laundering and tax evasion.

As noted, economists typically net out financial flows in the World Bank Residual measure and the trade misinvoicing measure. In doing so, their methodology is consistent with the treatment of *recorded*, or licit, capital flows in the balance of payments. However, the use of the net method in the measurement of illicit financial flows is flawed for several reasons. First, we must distinguish between net recorded flows in the balance of payment and net illicit flows. A net measure of capital flows as recorded in the balance of payments is a valid concept as it represents a net gain or loss of capital. On the other hand, a net measure of illicit flows makes little sense because the flows are illicit in both directions. After all, there is no such concept as net crime. In fact, net illicit inflows do not represent a net benefit to a country in the sense that net capital inflows recorded in the balance of payments *do*. Second, like illicit outflows, illicit inflows are also unrecorded. How could a government tax capital that is unrecorded or use it for any productive purposes? In fact, illicit inflows are more likely to drive underground economic activities than they are to boost the productive capacity of the official economy. Hence, in treating illicit inflows as if they were beneficial to a country, the netting out method seriously understate the adverse impact of such flows on economic development and poverty alleviation.

Economists have long acknowledged that trade mispricing is an important conduit for the cross-border transfer of illicit capital⁸. Their studies have corroborated the fact that foreign assets can be acquired through export under-

⁷See the 2010 publication of the IMF Direction of Trade Statistics Yearbook for details on a c.i.f. factor of 10%.

⁸Bhagwati (1964). *On the Under-invoicing of Imports*, Bulletin of the Oxford University Institute of Economics and Statistics; Nayak (1977), *Illegal Transaction in External Trade and Payments in India: An Empirical Study*, Economic and Political Weekly; Gulati (1987),

invoicing and import over-invoicing. Incidentally, the manipulation of trade invoices also occurs in the United States among other industrial countries.⁹ Trade mispricing accounts for about 54 percent of cumulative illicit flows from developing countries over the period 2000–2009, although the share in total outflows has declined since 2004. Over the decade ending 2009, unrecorded leakages through the balance of payments have been increasing relative to trade misinvoicing—on average, the balance of payments component account for 49.1 percent of cumulative transfers of illicit capital while the trade misinvoicing component account for 50.9 percent.

(iv) Developments in Total Illicit Outflows

Estimates of illegal capital flight or illicit financial flows from China tend to vary by a much wider margin than they do for most other countries. The main reason why they do so relates to intra China-Hong Kong trade. For one, China-Hong Kong trade poses difficulties in identifying origin of exports and destination of imports that are recorded by their partner countries. For example, if China's exports to other countries that pass through Hong-Kong are recorded by those countries as originating from the latter while China records those exports as originating from the Mainland, then total Chinese Mainland exports to the world would be overstated relative to world imports from Mainland China (implying illicit inflows due to export over-invoicing). As there are no estimates of how much trade between China and Hong Kong is destined for domestic consumption and how much is merely passing through as re-exports, economists have estimated illegal capital flight from China by both including and excluding Hong Kong and Macao from the trade misinvoicing calculations.¹⁰ We shall therefore present both estimates here.

The reasons for focusing on outflows have been discussed above. Apart from the adjustments due to intra-regional trade, estimates of illicit flows from China also vary due to the coverage of conduits responsible for such flows. For example, some studies do not include outflows due to trade misinvoicing. So care has to be exercised in comparing various estimates of illicit flows from China to ensure that the underlying methodologies are roughly comparable.

Based on GFI's gross outflows methodology and *excluding Hong Kong and Macao from world and Chinese trade*, trade misinvoicing-adjusted gross illicit outflows from China increased from US\$172.6 billion in 2000 to US\$602.9 billion in 2011, a 7.2 percent real rate of growth per annum, which is slightly below the 10.2 percent average annual growth rate of GDP over this period (Table 1).¹¹ While illicit outflows have declined in relation to GDP from 14.4 percent in 2000 to 8.3 percent in 2011, the rate of outflows has accelerated from 10.4 percent in the pre-crisis period to 13.9 percent per annum since then. Table 1 shows that cumulated illegal capital flight from China according to the Traditional "Net" measure amounted to US\$3.75 trillion compared to US\$3.79 trillion using GFI's gross outflows method.

Illicit outflows that exceed 10 percent of the world's second largest GDP are indeed worrisome. Indeed, if outflows continue to ratchet upwards, adverse repercussions on social and political stability cannot be ruled out. According to a report in the Chinese media, more than half of Chinese millionaires seem intent on leaving the country.¹² The myriad

A Note on Trade Misinvoicing, from the book *Capital Flight and Third World Debt*; Ndikumana and Boyce (2001), *Is Africa a net Creditor? New Estimates of Capital Flight from Severely Indebted Sub-Saharan African Countries, 1970-96*, Journal of Development Studies; Ndikumana and Boyce (2008), *New Estimates of Capital Flight from Sub-Saharan African Countries: Linkages with External Borrowing and Policy Options*, Political Economy Research Institute, University of Massachusetts Amherst, Working Paper.

⁹See, for example, Simon Pak and John Zdanowicz (2002), *An Estimate of 2001 Lost U.S. federal Income Tax Revenues Due to Over-invoiced imports and Under-invoiced exports*.

¹⁰*Capital Flight and Capital Controls in Developing Countries*, Gerald Epstein, Editor (2002).

¹¹Specifically, the trade adjustment involves reducing (i) world imports by Hong Kong and Macao's imports from China (ii) world exports by Hong Kong and Macao's exports to China. Similarly, China's exports to and imports from the world are respectively reduced by China's exports to and imports from Hong Kong and Macao.

¹²Zhang, Jianping, Ma Wenhui, and Tian Shuai (2012). *The fears that are driving the flight of the rich*, China Daily.

reasons noted range from personal and economic insecurity to inadequate safeguards for personal property and deteriorating environmental and medical conditions. As China Daily notes, any large-scale emigration of Chinese millionaires could sap the power of the middle class and fuel social instability.

Table 1. China: Illicit Financial Flows and Trade Openness, 2000-2011

Year	Trade Misinvoicing				CED	Nominal IFFs "Net"	Nominal IFFs Outflow	Real IFFs Outflow	Gross Domestic Product	Real GDP Growth	Total Trade Misinvoicing as % GDP	Total IFFs as % GDP	Trade Openness
	Export Under-invoicing	Import Over-invoicing	World	Share of World TM									
	USD Billions	USD Billions	USD Billions	%	USD Billions	USD Billions	USD Billions	2005 USD Billions	USD Billions	%	%	%	%
2000	73.9	54.3	128.2	74.3	44.4	172.6	172.6	204.7	1,198.5	8.4	10.7	14.4	39.6
2001	74.8	62.7	137.5	75.0	45.7	183.2	183.2	214.9	1,324.8	8.3	10.4	13.8	38.5
2002	86.9	66.9	153.8	95.0	8.1	161.9	161.9	194.4	1,453.8	9.1	10.6	11.1	42.7
2003	98.9	84.6	183.5	95.8	8.1	191.6	191.6	218.4	1,641.0	10.0	11.2	11.7	51.9
2004	129.3	121.7	251.1	100.0	0.0	229.7	251.1	269.4	1,931.6	10.1	13.0	13.0	59.8
2005	153.4	130.1	283.5	96.9	9.2	292.7	292.7	292.7	2,256.9	11.3	12.6	13.0	63.0
2006	149.9	146.2	296.1	77.3	87.0	383.1	383.1	366.0	2,712.9	12.7	10.9	14.1	64.9
2007	154.9	171.8	326.7	80.0	81.9	408.6	408.6	372.5	3,494.2	14.2	9.3	11.7	62.2
2008	138.6	209.9	348.4	84.8	62.5	411.0	411.0	341.2	4,520.0	9.6	7.7	9.1	56.6
2009	132.1	162.6	294.7	100.0	0.0	277.2	294.7	268.3	4,990.5	9.2	5.9	5.9	44.2
2010	129.8	237.6	367.4	84.3	68.2	435.6	435.6	371.1	5,930.4	10.4	6.2	7.3	50.2
2011	119.2	310.8	430.0	71.3	172.9	602.9	602.9	472.0	7,298.1	9.2	5.9	8.3	49.9
Average	120.1	146.6	266.7	86.2	49.0	312.5	315.7	298.8	3,229.4	10.2	9.5	11.1	52.0
Cumulative	1,441.7	1,759.1	3,200.8	.	588.1	3,750.0	3,788.9	3,585.5	.	.	.	.	.
Logarithmic Growth 2000-2011	5.5	16.3	11.4	.	.	11.5	11.6	7.2	.	.	.	.	.

1/ Adjustment for Hong Kong and Macao included.

2/ GDP figures from IMF World Economic Outlook; Trade Openness defined as (Imports+Exports)/GDP, where trade data is from the IMF International Financial Statistics database. All other figures are GFI

If no adjustments for intra Chinese regional trade are made, then estimates of illicit outflows grow at 1 percent per annum in real terms over this period, a much slower pace of growth than is derived by correcting for intra-regional trade. While unadjusted outflows also increase in nominal terms, they undergo a steady decline in terms of GDP from 13.1 percent in 2000 to just 4.4 percent in 2011.

There are several indications that a scenario without adjusting for intra-Chinese regional trade is likely to be unrealistic. For one, the rate of growth of illicit outflows (1 percent per annum) falls far short of real economic growth (10.2 percent per annum) with outflows actually declining in real terms in the period before the crisis. This is overly optimistic given that World Bank governance indicators related to control of corruption, political stability and absence of violence, rule of law, and other measures show a significant deterioration over the period 1996-2010. For this reason, we do not present a separate table showing developments in illicit outflows that does not adjust for intra-regional Chinese trade.

(v) Developments in Trade Misinvoicing

The deliberate misinvoicing of exports and imports comprise by far the major channel for the transfer of illicit capital from China, although the share has tended to fluctuate over the period 2000-2011. In the pre-crisis period 2000-2007, the share of trade misinvoicing in total outflows was around 87 percent on average while in the period since then, the share has come down to about 85 percent. A recent study at the IMF concludes that while the effectiveness of customs in addressing evasion may be better in India than in China, the latter appears to be catching up over time.¹³

Given that the United States is China's largest trading partner, the question about misinvoicing involving trade between the two countries naturally arises. However, it should be noted that we cannot make adjustments for intra-China regional trade when estimating misinvoicing involving China-U.S. trade. The reason is that we cannot net

¹³Mishra, Prachi, Arvind Subramanian, and Petia Topalova (2007). *Policies, Enforcement, and Customs Evasion: Evidence from India*, IMF Working Paper.

out Hong Kong and Macao's exports to and imports from the United States from U.S.-China trade data and neither can we net out China's exports to and imports from Hong-Kong and Macao out of Chinese exports to and imports from the United States. To adjust trade misinvoicing between China and the United States for intra-Chinese trade, we would need to have an accurate estimate of the proportion of trade between mainland China and Hong Kong that continues on to the United States (and vice-versa). Errors in estimating trade absorbed domestically versus those that are re-exported would lead to large distortions in trade data discrepancies. Between 2000 and 2011, based on the "no adjustment" method, misinvoicing by Chinese companies trading with the United States increased from US\$48.8 billion to US\$ 59.0 billion. In fact, the volume of trade misinvoicing between mainland China and the United States has been increasing steadily throughout the pre-crisis period 2007-2011 but have declined since then possibly as a result of lower growth in China-U.S. trade. The lower volume of misinvoicing may also be related to tighter regulatory oversight by the United States customs.

Some studies have found that trade misinvoicing occurs in order to take advantage of particular incentives and to avoid higher taxes. For example, Fisman and Wei (2004) quantified the impact of import tariffs on tax evasion using data on trade between China and Hong Kong.¹⁴ Based on data on 1,600 groupings of imported goods at the 6-digit HS level, they found that a one percentage point increase in the sum of the tariff and VAT on imports led to a two to three percent increase in evasion. Other studies on China have found that firms seek to reduce export under-invoicing when tax rebates are high if the tax incentives on the firm's round-tripped FDI is larger than the export subsidies foregone as a result of under-invoicing.¹⁵ The under-invoicing is used to shift illicit capital abroad (to places such as Hong Kong and the British Virgin Islands) while the round-tripping as FDI is used to launder the illicit assets in order to take advantage of tax breaks and incentives on the ill-gotten wealth. According to Fung et. al., Chinese firms "systematically underreport exports to Hong Kong even though the export rebates do offset some of the incentives to do so."

¹⁴Fisman, Raymond and Shang-Jin Wei (2004). *Tax Rates and Tax Evasion: Evidence from "Missing Imports" in China*, *Journal of Political Economy*, Vol. 112, No. 2, pp. 471-500.

¹⁵Fung, Hung-Gay, Jot Yau, and Gaiyan Zhang (2010). *Reported Trade Figure Discrepancy, Regulatory Arbitrage, and Round-tripping: Evidence from the China-Hong Kong Trade Data*, University of Missouri, St. Louis, unpublished.

Table 2. Top 10 Commodities Misinvoiced between China and Hong Kong, Cumulative GER 2007-2011
(in billions of U.S. dollars or in percent)

HS07 Code	Description	Export Invoicing	Import Invoicing	GER	GER Growth	Share in the Top 10
854231	Name: Electronic integrated circuits, processors & controllers, whether/not combined with memories, converters, logic circuits, amplifiers, clock & timing circuits,/other circuits Description: - Processors and controllers, whether or not combined with memories, converters, logic circuits, amplifiers, clock and timing circuits, or other circuits	77.6	6.5	84.0	13.1	19.0
854239	Name: Other Electronic integrated circuits, other than Amplifiers/Memories/Processors & controllers Description: - Other	64.2	0.0	64.2	13.3	14.5
847330	Name: Parts & accessories of the machines of heading 84.71 Description: - Parts and accessories of the machines of heading 84.71	55.6	0.0	55.6	8.4	12.6
851770	Name: Parts of telephone sets, incl. telephones for cellular networks/for other wireless networks; other apparatus for the transmission/reception of voice, images/other data, incl. apparatus for communication in a wired/wireless network (such as a local/wide ar Description: - Parts	49.0	5.4	54.8	10.3	12.4
851712	Name: Telephones for cellular networks/for other wireless networks, other than Line telephone sets with cordless handsets Description: - Telephones for cellular networks or for other wireless networks	4.0	32.2	36.3	164.5	8.2
852990	Name: Other parts suitable for use solely/principally with the apparatus of headings 85.25 to 85.28., other than aerials & aerial reflectors of all kinds Description: - Other	34.4	0.0	34.4	4.3	7.8
901380	Name: Liquid crystal devices not constituting articles provided for more specifically in other headings; other optical appliances & instr., n.e.s. in Ch.90 Description: - Other devices, appliances and instruments	4.9	28.2	33.1	7.9	7.5
847130	Name: - Portable automatic data processing machines, weighing not more than 10 kg, consisting of a least a central processing unit, a keyboard & a display Description: - Portable automatic data processing machines, weighing not more than 10 kg, consisting of a least a central processing unit, a keyboard and a display	0.9	28.7	29.7	14.1	6.7
854232	Name: Electronic integrated circuits, memories Description: - Memories	26.4	0.0	27.0	6.6	6.1
847170	Name: Storage units Description: - Storage units	22.8	0.0	24.1	13.3	5.4

1/ Based off of UNComtrade's listing of top 5 two-digit import and export groupings: 85, 99, 39, 84, 74, 90, 71 and 89. Note that 85 and 84 were in the top 5 two-digit groupings of imports and exports. 1151 commodities were analyzed at the six-digit level.

The GER methodology can also be applied to trade at the commodity level. The United Nations COMTRADE provides export and import data classified by the six-digit Harmonized Commodity Description and Coding System (HS) and by partner country. Data are categorized from general to specific, with the most general commodity groupings listed as two-digit codes and the most specific commodity groupings listed as six-digit codes.

We chose eight groupings (2-digit HS codes 85, 99, 39, 84, 74, 90, 71 and 89) of China's imports from and exports to Hong Kong with the largest trade value. Within these eight groupings, 1,151 more specific commodity groupings were analyzed at the six-digit level. The ten commodities with the highest cumulative gross outflows due to trade misinvoicing from 2007 to 2011 are shown in Table 2 above.

The commodity grouping of electronic circuits (HS Code 854231) has the largest cumulative illicit outflows due to export under-invoicing (US\$77.6 billion) and import over-invoicing (US\$6.5 billion), which account for nearly 20 percent of total misinvoicing involving the top ten commodity groupings. However, trade misinvoicing involving commodity group HS 851712 (mobile phones, etc.) has increased at the fastest pace over the period 2007 to 2011, commensurate with increasing trade in mobile phones. This is consistent with the finding in GFI's case study on Mexico that trade misinvoicing tends to increase with increasing trading volumes.

There is a reason why the largest volume of trade misinvoicing involves two main commodity groupings--group 84 (Nuclear reactors, boilers, machinery, etc) and group 85, "Electrical, electronic equipment". First, the more specialized a product, the easier it is to misinvoice because an inspector would need specialized knowledge in order to judge whether the product is under- or over-valued. Also, most of these commodities are often declared as "parts and accessories of machines" or some such non-specific description. This allows traders to hide the actual market price

of the product given the difficulty for customs unit value checks to flag price outliers. The aggregation of price for heterogeneous commodities presents a technical challenge because it makes no sense to price commodity groups that are “apples and oranges”.

The data analyzed above also has several limitations. First, misinvoicing within commodity-specific trade cannot be compared with the figures on China’s aggregate trade misinvoicing. The aggregate figures have been adjusted for trade with Hong Kong by removing the entity from our closed system of countries. However, as Fung, Yau, and Zhang (2010) point out, trade misinvoicing between China and Hong Kong will not be systematically biased at the commodity level, because re-exports and re-imports have been filtered out of our analysis. Second, the UN COMTRADE Disclaimer also makes it clear that there may be some statistical error between reporter and partner country trade statistics due to various factors including valuation (imports CIF, exports FOB), differences in inclusions/ exclusions of particular commodities, and timing. Third, the estimates of export under-invoicing and import over-invoicing above assume that China and Hong Kong are in a closed system of two countries. Thus simultaneous collusion cannot exist; export under-invoicing (import over-invoicing, respectively) from China to Hong Kong is a mirror statistic of import over-invoicing (export under-invoicing, respectively) from Hong Kong to China. In other words, we cannot assume that traders in Hong Kong are trying to over-invoice imports *at the same time* that their counterparts in China are trying to under-invoice exports.

Illicit financial flows from China, whether estimated on a net or gross outflows basis, are massive according to several economists. Such outflows adversely impact the collection of government revenues and worsen the distribution of income. China needs more effective collection of taxes in order to finance its expanding social expenditure commitments. The matter is urgent given that the country’s rapidly aging population is expected to generate additional fiscal pressures. It is therefore imperative that the authorities take strong measures to curtail the generation and cross-border transmission of illicit capital. Such measures should cover all three types of drivers of illicit flows— macroeconomic, structural, and governance-related.

II. External Assets of China in Tax Havens and Banks

As noted above, there is considerable evidence that the cross-border transfer of illicit capital from China into tax havens and developed country banks take place mainly through the deliberate misinvoicing of trade. Case studies on China show that a significant portion of illicit outflows re-enters China as FDI in a circular process known as round-tripping.¹⁶

Table 3. China, Hong Kong: Inward Foreign Direct Investment Positions, 2009-2010
(Rankings based on 2010 data)

Investment from:	Inward Reported by China, Hong Kong			
	2010		2009	
	USD Billions	Percent of World	USD Billions	Percent of World
China, P.R.: Mainland	366.5	37.6	312.3	36.9
Virgin Islands, British	324.3	33.3	288.7	34.1
Bermuda	64.6	6.6	49.4	5.8
Netherlands	60.1	6.2	48.3	5.7
United States	35.0	3.6	37.1	4.4
Japan	21.8	2.2	20.8	2.5
Cayman Islands	15.4	1.6	16.1	1.9
Singapore	14.3	1.5	12.7	1.5
United Kingdom	13.3	1.4	13.6	1.6
Confidential	9.8	1.0	6.6	0.8
Other (11 entities)	48.3	5.0	37.1	4.4
World	973.5	100.0	845.7	100.0

1/ "Others" reflects entities outside of the top 10. Entity rankings may have shifted from 2009, and thus 2009 components may not add up to 2009 total.

2/ Source: IMF Coordinated Direct Investment Survey (CDIS) Database

Table 5. China, Mainland: Inward Foreign Direct Investment Positions, 2009-2010
(Rankings based on 2010 data)

Investment from:	Inward Reported by China, Mainland			
	2010		2009	
	USD Billions	Percent of World	USD Billions	Percent of World
China, P.R.: Hong Kong	710.9	45.3	553.7	44.9
Virgin Islands, British	213.7	13.6	187.2	15.2
Japan	106.3	6.8	88.4	7.2
Not Specified	98.5	6.3	40.3	3.3
United States	63.5	4.0	55.3	4.5
Singapore	62.5	4.0	49.3	4.0
Korea, Republic of	40.3	2.6	32.2	2.6
Cayman Islands	32.3	2.1	26.2	2.1
Germany	28.7	1.8	21.7	1.8
Taiwan Province of China	23.4	1.5	21.1	1.7
Other (193 entities in 2009 232 entities in 2010, net)	189.5	12.1	157.2	12.8
World	1,569.6	100.0	1,232.5	100.0

1/ "Others" reflects entities outside of the top 10. Entity rankings may have shifted from 2009, and thus 2009 components may not add up to 2009 total.

2/ Source: IMF Coordinated Direct Investment Survey (CDIS) Database

Table 7. China, Hong Kong: Outward Portfolio Investment Positions, 2009-2010
(Rankings based on 2010 data)

Investment in:	Portfolio Investment, Assets Reported by China, Hong Kong			
	2010		2009	
	USD Billions	Percent of World	USD Billions	Percent of World
Cayman Islands	205.2	22.1	159.9	19.7
China, P.R.: Mainland	190.7	20.5	152.4	18.8
Bermuda	106.5	11.5	88.9	11.0
United States	92.5	10.0	91.9	11.3
United Kingdom	83.3	9.0	90.1	11.1
Australia	35.2	3.8	41.5	5.1
Luxembourg	28.9	3.1	22.0	2.7
Japan	24.5	2.6	18.1	2.2
Korea, Republic of	20.2	2.2	17.9	2.2
Germany	15.6	1.7	12.0	1.5
Others (80 entities in 2010, 87 entities in 2009)	126.7	13.6	111.3	13.7
World	929.4	100.0	811.4	100.0

1/ "Others" reflects entities outside of the top 10. Entity rankings may have shifted from 2009, and thus 2009 components may not add up to 2009 total.

2/ Source: IMF Coordinated Portfolio Investment Survey (CPIS) Database

Table 4. China, Hong Kong: Outward Foreign Direct Investment Positions, 2009-2010
(Rankings based on 2010 data)

Investment in:	Outward Reported by China, Hong Kong			
	2010		2009	
	USD Billions	Percent of World	USD Billions	Percent of World
Virgin Islands, British	356.7	44.6	334.0	46.6
China, P.R.: Mainland	327.6	41.0	288.1	40.2
Bermuda	32.2	4.0	26.0	3.6
Luxembourg	10.4	1.3	.	.
Confidential	9.3	1.2	7.6	1.1
United Kingdom	8.9	1.1	9.5	1.3
Thailand	6.8	0.8	5.3	0.7
Liberia	6.4	0.8	5.1	0.7
Cayman Islands	5.8	0.7	4.0	0.6
Singapore	5.6	0.7	4.8	0.7
Other (11 entities)	29.8	3.7	26.8	3.7
World	799.5	100.0	715.9	100.0

1/ "Others" reflects entities outside of the top 10. Entity rankings may have shifted from 2009, and thus 2009 components may not add up to 2009 total.

2/ Source: IMF Coordinated Direct Investment Survey (CDIS) Database

Table 6. China, Mainland: Derived Outward Foreign Direct Investment Positions, 2009-2010
(Rankings based on 2010 data)

Investment to:	Inward Reported by Partners Listed			
	2010		2009	
	USD Billions	Percent of World	USD Billions	Percent of World
China, P.R.: Hong Kong	366.5	81.2	312.3	83.2
Canada	14.0	3.1	12.3	3.3
Singapore	13.8	3.1	10.1	2.7
Australia	13.0	2.9	8.2	2.2
Saudi Arabia	9.0	2.0	5.9	1.6
South Africa	5.6	1.2	4.6	1.2
Indonesia	3.4	0.8	3.5	0.9
Luxembourg	3.4	0.7	3.3	0.9
United States	3.2	0.7	1.2	0.3
Kazakhstan	2.6	0.6	2.1	0.6
Other (62 entities in 2009 62 entities in 2010, net)	17.0	3.8	11.2	3.0
World	451.5	100.0	375.2	100.0

1/ "Others" reflects entities outside of the top 10. Entity rankings may have shifted from 2009, and thus 2009 components may not add up to 2009 total.

2/ Data is derived based on partner countries inward foreign direct investment from China, mainland.

3/ British Virgin Islands do not report foreign direct investment statistics from China

4/ Source: IMF Coordinated Direct Investment Survey (CDIS) Database

¹⁶Hung-Gay Fung, Jot Yau, and Gaiyan Zhang (2010), *Reported Trade Figure Discrepancy, Regulatory Arbitrage, and Round-tripping: Evidence from the China-Hong Kong Trade Data*, University of Missouri, St. Louis, working paper. See also, Eswar Prasad and Shang-Jin Wei (2006), *Understanding the Structure of Cross-border Capital Flows: The Case of China*, paper presented at the Columbia University Conference, China at Crossroads: FX and Capital Markets Policies for the Coming Decade.

While the outflows are unrecorded or illicit, round-tripped FDI are licit because they are recorded in the balance of payments and reported to the IMF (see Tables 3-6). Indeed, the round-tripping process can be looked upon as an elaborate money-laundering exercise.

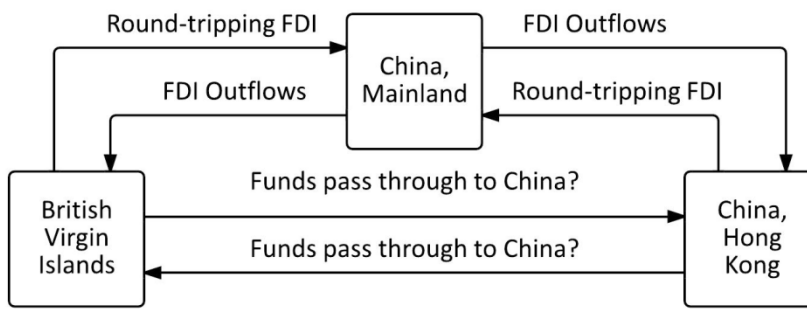
To the extent that such round-tripped capital comprise a significant and growing portion of total FDI into China, the country suffers a double loss. First, it failed to generate the initial capital legitimately and to invest the proceeds productively (reflecting on the country's weak governance and regulatory oversight). Second, the country also lost revenues in providing subsidies and tax rebates to what essentially are elaborate money laundering mechanisms entailing the return of illicit capital masquerading as legitimate FDI. It is clear who benefits and who loses from such financial shenanigans. We will show that the flow of FDI from tax havens like Hong Kong and the British Virgin Islands (BVI) into China is so massive that they are unlikely to be sustained if they were not financed by a steady infusion of equally massive "investments" of illicit (and licit) funds by Chinese HNWI and private corporations in those jurisdictions.

It is well known that China, in an effort to attract foreign direct investment and portfolio capital, has adopted investor-friendly policies such as tax concessions, government guarantee of loans extended by foreign corporations to domestic firms, breaks on the tax rates applicable on repatriated profits, easing of FDI regulations, etc. While these regulations have facilitated massive inflows of licit foreign capital, they have—by raising the return on foreign relative to domestic capital—also created the incentives for both licit and illicit capital flight. As Sicular (1998) notes, "Such provisions have apparently been effective in creating higher returns to foreign capital, as there is evidence that they cause Chinese investors to move money offshore and then bring it back into the country disguised as foreign investment".¹⁷ Other incentives for capital flight are the limited range of domestic financial instruments, the additional risk of confiscation associated with illicit funds, and the still-felt insecurities related to ownership of private assets. He also notes that "Chinese investors are increasingly diversifying through both visible and hidden channels into offshore investments." The Sicular study is somewhat dated. Moreover, Sicular's hypotheses were not backed up by hard data on Chinese assets in offshore centers or data on FDI flows between China and those jurisdictions. The IMF's relatively recent initiatives, namely the coordinated direct investment surveys (CDIS) and the coordinated portfolio investment surveys (CPIS), allow researchers to trace the movement of these major capital flows by source and destination countries. While this is a large-scale data compilation exercise and is quite complicated to put together, research is hampered by the fact that CDIS and CPIS data are only available for 2009 and 2010. Many countries including China have not yet reported such data to the IMF. Nevertheless, there is some evidence based on the limited data that the Chinese "round-tripping" investment trends that Sicular mentioned are continuing.

How does round-tripping work? According to the IMF CDIS Manual, funds move from a business enterprise in the host or source economy to another enterprise in a "routing" economy, only to have them come back to the original or another enterprise in the host economy. According to the IMF, the enterprise receiving the funds in the routing economy has little or no business operations of its own. An example of round-tripping would involve a domestic investment by a Chinese enterprise disguised as FDI going to a subsidiary in a routing economy (typically in an offshore center such as Hong Kong or BVI). The process can be depicted as follows:

¹⁷Sicular, Terry (1998). *Capital Flight and Foreign Investment: Two Tales from China and Russia*, World Economy, Vol. 21, Issue 5, pp. 589-602.

Chart 1. Round-Tripping among the Troika



The CDIS Manual recommends that host countries record round-tripped funds in conformity with the guidelines applicable for FDI transactions and positions. These recorded (licit) funds would therefore appear as outward FDI from the host country to the routing economy, and as inward direct investment from the routing economy to the host country. Analogously, the routing economy should record the funds received from the host country as inward FDI and as outward direct investment for the return of these funds to the host economy. However, the data required to analyze the round-tripping process is not complete as China does not report outward FDI, let alone those into routing economies such as Hong Kong and BVI. These need to be derived based on the inward FDI positions of these offshore centers vis-à-vis the host country, China. But here too there are data gaps as the BVI also does not directly report CDIS data to the IMF (the BVI is an overseas territory of the United Kingdom and is not a member of the IMF).

An example of the flow of funds depicted in Chart 1 involves a company in the host economy (China) which invests into a subsidiary in the routing economy (BVI) for on-ward FDI in another company back in the host economy. This is depicted by the arrows showing the flows between China and the BVI. On the other hand, round-tripping can also be viewed from the perspective of the routing economy whereby a company in BVI receives FDI from a parent company in China, the host economy, which then reinvests these funds in another company in China.

Table 3 shows that foreign direct investments from China into Hong Kong increased from US\$312.3 billion in 2009 to US\$366.5 billion in 2010, representing respectively 36.9 and 37.6 percent of total FDI into that offshore center while Table 5 shows that China received US\$553.7 billion and US\$710.9 billion from Hong Kong in those years. Thus, China and Hong Kong are the largest foreign direct investors in each other's economy (Table 3 and 6). The BVI plays a similar role in the round-tripping of FDI except that China's FDI into BVI seems to be routed through Hong Kong. We can see that BVI's FDI into mainland China increased from US\$187.2 billion in 2009 to US\$213.7 billion in 2010. Given that BVI is a British Overseas Territory located in the Caribbean with a population of about 28,000 and a GDP of around US\$1.1 billion, it is hard to see how it can undertake such massive FDI outflows unless funds were routed back in via Hong Kong.¹⁸ Sure enough, according to Table 3, the BVI is the second largest recipient of FDI from Hong Kong, which increased from US\$288.7 billion in 2009 to US\$324.3 billion in 2010. The fact that FDI from Hong Kong into China (Table 5) increased from US\$553.7 billion in 2009 to US\$710.9 billion in 2010 (compared to just US\$63.5 billion from the United States in 2010) would lead one to believe that the only way such massive capital could have round-tripped back to China from Hong Kong and BVI would be if equally massive illicit outflows from China were to finance them in the first place. Otherwise, it is inconceivable that BVI and Hong Kong (with a much smaller GDP than the United States) could

¹⁸Central Intelligence Agency (2012), World Factbook. (reference link: <https://www.cia.gov/library/publications/the-world-factbook/geos/vi.html>).

have marshaled the necessary financial wherewithal to carry out FDI on that scale year after year. Massive FDI outflows from Hong Kong to BVI (Table 4) outstrip those into China in both 2009 and 2010; in 2010, FDI inflows from Hong Kong into BVI amounted to US\$356.7 billion, well in excess of US\$327.6 billion into mainland China.

Portfolio investments (Table 7) into China from Hong Kong, which increased from US\$152.4 billion in 2009 to US\$190.7 billion in 2010, are much smaller but by no means insignificant. Interestingly, the Cayman Islands attracted more portfolio capital from Hong Kong than did mainland China, an astonishing fact in itself. Bermuda attracted more portfolio capital from Hong Kong than did any of the industrial countries including the United States. Perhaps, the closer scrutiny by more effective regulators in advanced countries makes portfolio investments with illicit funds more difficult, accounting for the bulk of such funds to flow to tax havens like Bermuda and the Cayman Islands.

Considering reported (or licit) data only, Chart 1 shows that a massive amount of FDI is swirling between the China-Hong Kong-BVI troika. For example, in 2010, if we go clockwise starting from China, US\$366.5 billion flowed out to Hong Kong which invested US\$356.7 billion in BVI which in turn invested US\$213.7 billion back into China accounting for US\$936.9 billion circulating as FDI among the troika. In that same year, if we go counter-clockwise, BVI invested US\$324.3 billion in Hong Kong which invested US\$710.9 billion in China. Even if reported data does not show that the latter invested back in BVI, the amount in circulation among the troika total slightly more than US\$1 trillion.

Table 8. Estimated Flows of Illicit Capital in Offshore Centers (OFCs), 2005-2011
(in billions of U.S. dollars or in percent)

Year	Total Nominal IFFs	Cash IFFs	Other Financial Assets	Total	IFFs in OFCs
2005	292.7	29.3	110.8	140.1	61.6
2006	383.1	38.3	145.1	183.4	80.7
2007	408.6	40.9	154.7	195.6	86.1
2008	411.0	41.1	155.6	196.7	86.6
2009	294.7	29.5	111.6	141.1	62.1
2010	435.6	43.6	165.0	208.5	91.7
2011	602.9	60.3	228.3	288.6	127.0
Cumulative, 2005-2011	2,828.5	282.9	1,071.1	1,354.0	595.8
Average, 2005-2011	404.1	40.4	153.0	193.4	85.1

1/ Source: GFI staff estimates

Table 9. Estimated Total Flows of Licit Capital in Offshore Centers (OFCs), 2005-2011
(in billions of U.S. dollars or in percent)

Year	IIP, Assets Total	IIP, Reserve Assets, Net	IIP, Private Assets	IIP, Private Assets in OFCs	IIP, Private Assets in OFCs, Flow
2004	933.4	623.0	310.5		
2005	1,229.1	831.5	397.6	175.0	38.3
2006	1,690.5	1,080.8	609.7	268.3	93.3
2007	2,416.2	1,547.3	868.9	382.3	114.1
2008	2,956.7	1,966.2	990.5	435.8	53.5
2009	3,436.9	2,453.2	983.7	432.8	-3.0
2010	4,118.9	2,914.2	1,204.7	530.1	97.2
2011	4,718.2	3,255.8	1,462.4	643.4	113.4

1/ Source: IMF Balance of Payments Database, GFI staff estimates

Table 10. Estimated Total Flows of Licit and Illicit Capital in Offshore Centers (OFCs), 2005-2011
(in billions of U.S. dollars or in percent)

Year	Illicit	Licit	Total	Proportion	
				Illicit	Licit
2005	61.6	38.3	100.0	61.7	38.3
2006	80.7	93.3	174.0	46.4	53.6
2007	86.1	114.1	200.1	43.0	57.0
2008	86.6	53.5	140.1	61.8	38.2
2009	62.1	-3.0	59.1	...	...
2010	91.7	97.2	189.0	48.6	51.4
2011	127.0	113.4	240.4	52.8	47.2
Cumulative, 2005-2011	595.8	506.8	1,102.6	...	...

Table 11. Offshore Financial Services by Center, 2006

Type of Asset	China, Hong Kong
Offshore Deposits	612.8
Mutual Funds (Portfolio)	910.3
Gross written Premiums	20.1
Sum	1,543.2
% Offshore Mutual Funds	37.9

1/ Source: Datamonitor

It is possible to derive some rough estimates of licit and illicit assets held in tax havens. GFI's study on absorption found that between 24-44 percent of total illicit outflows from developing countries are stashed in tax havens, depending upon whether one uses the narrower BIS definition or the broader IMF definition of such jurisdictions. The IMF's broader definition classifies Switzerland and Ireland as offshore centers.¹⁹ We estimate illicit and licit flows into tax havens using the IMF definition, as follows.

Cash deposits are 10% of total flows (based on Cap Gemini world wealth portfolio holdings) while other financial assets make up 37.9 percent of total assets in tax havens (based on holdings in Hong Kong). The balance is invested in non-financial assets such as real estate, precious metals, etc. For example, according to Table 8, total illicit outflows from China in 2011 was US\$602.9 billion out of which US\$60.3 billion was deposited as cash and US\$228.3 billion in other financial assets (such as stocks, bonds, mutual funds, derivatives); 44 percent of the US\$288.6 billion held as cash and other financial assets or US\$127.0 billion in illicit assets flow into tax havens (see Table 8 for details on private sector illicit flows into tax havens).

Regarding the estimation of licit flows, we start with total (public and private) international investment position (IIP) assets reported by China to the IMF of US\$4.7 trillion in 2011 that are held worldwide (in banks and tax havens) (see Table 9). Note that IIPs are stock figures not flows. From this total, we take out officially held reserve assets of US\$3.2 trillion in order to derive private sector asset holdings. There could be other publicly held assets in IIP assets, but these are impossible to identify as the IIP system does not show assets held by sector. To that extent, the 2011 estimate of private sector IIP assets of US\$1.46 trillion may be somewhat overstated. Now, out of this, if we assume that some 44 percent are held in tax havens, then the amount held totals US\$643.4 billion. This proportion may be overstated as licit flows into tax havens are likely to be lower than illicit flows. In any case, this is a stock figure and a change in the stock figure is our best estimate of a flow given that we do not have information on withdrawals.

Table 10 estimates the proportion of licit and illicit investment flows based on these broad assumptions. On average, 52.4 percent of investments that flowed into tax havens during 2005-2011 were illicit while 47.6 percent were licit. These estimates vary significantly from year to year depending upon a number of factors such as the generation of illicit capital, regulatory changes, investor preference, extent of illicit funds generated and transferred, risk appetite, etc.

The problem of illicit flows cannot be solved by simply focusing on domestic policy measures that need to be taken by developing countries such as China. The world's shadow financial system, which facilitates the absorption of illicit flows, must also be subject to greater regulatory oversight so that the system is held to higher standards of transparency and accountability regarding transactions and operations. A whole host of policy measures is necessary to make the absorption of illicit assets more difficult ranging from greater transparency with regard to the reporting of data and information to the requirement that financial institutions collect information on beneficial ownership of corporations, foundations and trusts, the requirement of country-by-country reporting by multinationals on their transactions and operations, and the automatic exchange of tax information between sovereign nations and tax havens.

¹⁹Kar, Dev, Devon Cartwright-Smith, and Ann Hollingshead (2010). *The Absorption of Illicit Financial Flows from Developing Countries: 2002-2006*, Global Financial Integrity, Washington DC.

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