



GLOBAL FINANCIAL INTEGRITY

# Illicit Financial Flows From Developing Countries: 2001-2010



**Dev Kar and Sarah Freitas**  
December 2012





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*Global Financial Integrity Wishes to Thank  
The Ford Foundation for Supporting this Project*



**FORDFOUNDATION**

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We are pleased to present here our analysis of **Illicit Financial Flows From Developing Countries: 2001-2010**.

In our previous annual reports we have utilized the World Bank Residual model adjusted for trade mispricing, presented in both gross non-normalized and in filtered normalized calculations. In this year's report we are adding a second form of analysis, the Hot Money Narrow model adjusted for trade mispricing, again presented in non-normalized and normalized calculations. The results for 2010 are summarized as follows:

World Bank Residual Plus Trade Mispricing, Non-Normalized	US\$ 1,138 billion
World Bank Residual Plus Trade Mispricing, Normalized	US\$ 892 billion
Hot Money Narrow Plus Trade Mispricing, Non-Normalized	US\$ 859 billion
Hot Money Narrow Plus Trade Mispricing, Normalized	US\$ 783 billion

The consideration which led us to include a second type of measure of illicit flows has to do with the potential for some level of licit financial flows to appear in the gap between the source of funds and use of funds. This will bear further examination, as we continue to augment our analytical methodologies.

What is perhaps most important to appreciate is that none of our estimates include several major components of illicit flows, such as smuggling, cross-border movements of cash, trade mispricing that occurs in the same invoice exchanged between importers and exporters, and the mispricing of all services and intangibles which are not covered in IMF Direction of Trade Statistics. If we had reliable figures or estimates on these exclusions, without question our estimates of illicit flows from emerging market and developing countries would be much higher.

Our preceding 2009 analysis utilizing the World Bank Residual model produced a range of estimates of illicit flows from US\$775 billion to US\$903 billion for the year. The 2010 estimates summarized above in four calculations and depicted in charts in the text indicate a growing order of magnitude, suggesting that the slightly improving global economy afforded rising levels of unrecorded flows. Whatever strengthened financial regulations may be in place or may be contemplated cannot yet be seen to have an effect on the continued passage of funds out of poorer countries, through the global shadow financial system, and ultimately into richer western economies. The somewhat more conservative analysis produced by the Hot Money Narrow methodology suggests that trade mispricing is rising in importance in the shift of illicit funds abroad.

We have added to this year's report a special section on Sovereign Wealth Funds (SWF), recognizing their growing importance. The lack of clarity and consistency with which SWF-related transactions are handled in balance of payments compilations of some countries calls for remedial action by regulatory and statistical agencies with such large assets under management. Libya's SWF appears to have been used for political as much as investment purposes, whereas Norway's SWF has made every citizen of the country a comfortable kroner millionaire. With now more than 60 SWFs around the globe an enormous pool of capital exists, and standards of accounting for such funds need to be regularized through the auspices of the International Monetary Fund.

Six years ago when Global Financial Integrity was formed, the term "illicit financial flows" was non-existent or insignificant in the global political-economy lexicon. Today this term and its surrounding concepts are used and addressed by the G20, UN, World Bank, IMF, OECD, European Union, and national governments across the planet. A UN official recently commented that GFI's job is to "unpack the opaque." And this will continue to be our role in years to come.

We thank Dev Kar and Sarah Freitas for their excellent work in producing this analysis. The ongoing support of the Ford Foundation is most gratefully acknowledged and appreciated.

**Raymond W. Baker**

Director, Global Financial Integrity

December 12, 2012

# Contents

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Abstract .....	g
Executive Summary .....	i
I. Introduction .....	1
II. Coverage of flows in the World Bank Residual method .....	3
a. Normalization through use of filters .....	8
III. Trends in Illicit Financial Flows from Developing Countries and Regions .....	9
IV. Special Issues: Sovereign Wealth Funds .....	23
V. Conclusions .....	27
References .....	29
Glossary .....	31
Appendix Tables .....	35

## Charts and Tables within Report

Table A. The United States and China: Balance of Payments Components, 1991 .....	4
Chart 1. Volume of Illicit Financial Flows in Nominal Terms from All Developing Countries 2001-2010 .....	5
Table B. Four Estimates of Capital Flight, All Developing Countries, 2001-2010 .....	6
Chart 2. Illicit Financial Flows by Region, 2001-2010 .....	7
Chart 3. Normalized vs. Non-normalized GER, 2001-2010 .....	8
Table C. Illicit Financial Flows Broken Down by Region in Nominal Terms .....	10
Table D. Illicit Financial Flows Broken Down by Region in Real Terms .....	12
Chart 4. Illicit Flows in Real Terms 2001-2010; Regional Shares in Developing World Total .....	14
Chart 5. Real Rates of Growth of IFFs from 2001-2010 by Region .....	15
Chart 6. Regional Illicit Flows in Nominal Terms 2001-2010; Shares Related to HMN and GER Components .....	15
Chart 7. Top 20 Countries' Cumulative Illicit Flows, Nominal HMN+GER Non-normalized, 2001-2010 .....	16
Table E. Total Illicit Financial Flows from the Top Ten Developing Countries .....	17
Table F. Changes in Cumulative Non-Normalized Illicit Outflow Rankings in Nominal Terms ...	18
Chart 8. Top 10 Countries of 2010 Tracking Nominal Illicit Financial Flows .....	19
Chart 9. Oil Prices and Illicit Flows Out of Five Major Countries .....	20
Chart 10. Heat Map of Cumulative Illicit Financial Flows from Developing Countries, 2001-2010 .....	21





## Abstract

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This 2012 report on illicit financial flows (IFFs) from developing countries and regions updates estimates provided in *Illicit Financial Flows from Developing Countries Over the Decade Ending 2009* published by Global Financial Integrity in December 2011. The report presents an additional method of estimating flows based on the Hot Money Narrow measure adjusted for trade misinvoicing. The measure results in estimates of capital flows that are more likely to be illicit by nature. These conservative estimates of illicit flows are then compared against the previous estimates based on the World Bank Residual method adjusted for trade misinvoicing (the CED+GER method). The gap, representing flows of “licit” capital, has narrowed since the onset of the global economic crisis in 2008. We conclude by pointing out that estimates of illicit financial flows from certain countries with large sovereign wealth funds (SWFs) may be subject to significant margins of error due to incomplete or incorrect recording of SWF-related transactions.



# Executive Summary

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Two main issues, which arose in the past year, encouraged us to supplement our standard methodology used to estimate illicit flows based on the World Bank Residual method adjusted for trade misinvoicing.

First, we investigated the net measurement of inward from outward capital flight traditionally used by economists in academic journals. We reaffirm our commitment to a gross outflow approach, rather than a net approach, because only a return of licit capital that is recorded can offset loss of capital. The return of unrecorded and illicit capital cannot be used for productive purposes. In other words, the gross/net issue is linked to the nature of the capital.

Second, we explored the effect of the global financial crisis on both illicit and licit flows, determining that the residual method of estimating illicit flows adjusted for trade misinvoicing may include some licit capital as well as illicit. Moreover, if the CED+GER method includes licit capital, the support for a gross outflows approach is strengthened, as one cannot be sure whether the inward capital flight is licit or illicit in nature. Therefore, we present estimates of illicit flows using both the CED+GER method and the conservatively focused Hot Money Narrow method adjusted for trade misinvoicing (HMN+GER).

A firm judgment as to which method provides a more accurate method for estimating illicit flows is somewhat premature at this stage. *While the HMN+GER method provides more conservative estimates of illicit outflows, it may exclude certain illicit transactions such as round-tripped FDI which could be erroneously recorded as private sector flows.* We invite readers to comment on the appropriateness of the two methodologies for estimating illicit flows including reasons why one should be preferred over the other.

Using robust (non-normalized) estimates for both measures, we found that in 2010 developing countries lost between US\$858.8 billion to US\$1,138 billion, implying that as much as US\$279 billion of the higher figure could be licit capital flows of the private sector—outflows that took place as a result of “normal” portfolio maximizing considerations. While the two estimates were quite close in the early 2000s, capital market liberalization in many large emerging markets may have encouraged more licit or “normal” capital flight over the years. The gap between the HMN+GER and CED+GER estimates widened, reaching a peak in 2008 at the onset of the global economic crisis. In the following year, outflows of legal capital flight dropped more sharply than illicit outflows. The latter showed a steady upward trend for all developing countries more or less immune to macroeconomic shocks and adjustments.

We then further analyzed the gap between the two non-normalized (or robust) estimates in order to shed light on possible legal capital flight from the various regions of the developing world during the 10-year period studied. We observed that in the case of developing Europe, the MENA region, and Western Hemisphere, the gap tends to widen over time, reaching a peak in 2008 although it has closed in the following two years. The widening gap is perhaps the result of more normal capital flight due to a relaxation of capital controls. In all three regions, licit outflows plunged in 2009 due to the effects of the crisis on domestic and foreign capital markets noted above. In the case of Asia, the gap, which was almost nonexistent in the early 2000s, began to widen in 2005 and reached a peak in 2008 at the onset of the crisis. But the gap closed almost completely in 2009 as both licit and illicit outflows from Asia fell in tandem.

A finding that is worrisome is that the HMN+GER measure of illicit flows increased at a faster pace than the CED+GER measure (13.3 percent vs. 12.6 percent). The adverse implication is that increasing illicit flows are likely to result from a worsening of governance-related drivers given the scant evidence of a systematic increase in measurement errors.

In order to avoid overlap and to focus more sharply on flows that are likely to be purely illicit, we analyze trends, shares, and country rankings based on the HMN+GER method. According to this measure, illicit flows from developing countries in the robust calculation increased by over US\$500 billion since 2001 implying a real growth rate of 8.6 percent per annum on average, which exceeded their average rate of economic growth (6.3 percent per annum). We established that about 80 percent of illicit outflows were channeled through the deliberate misinvoicing of trade, although the shares of outflows from trade misinvoicing and the balance of payments have fluctuated.

We found that Asia, accounting for 61.2 percent of cumulative outflows, was still the main driver of such flows from developing countries. Indeed, five of the ten countries with the largest illicit outflows (China, Malaysia, the Philippines, India, and Indonesia) are in Asia. The Western Hemisphere, led by Mexico, follows at 15.6 percent, with the Middle East and North Africa (MENA) at 9.9 percent. Developing Europe follows MENA in share size, making up 7.0 percent of illicit flows, with the balance flowing out of Africa (6.3 percent).

MENA had the highest growth rate of illicit capital in real terms (26.3 percent per annum on average), followed by Africa (23.8 percent), Asia (7.8 percent), Europe (3.6 percent), and Western Hemisphere (2.7 percent). The rapid growth of outflows from the MENA region was due mainly to the increase in crude oil prices, which drove the region's current account surplus. It seems that rising oil prices provide more incentive for unrecorded flows. The finding is consistent with Almounsor (2005) who also found a significant positive link between illicit outflows and crude oil prices.

Trade misinvoicing continued to be the preferred method of transferring illicit capital from all regions except the MENA region where it only accounted for 37 percent of total outflows over the

decade ending 2010. At one extreme, Asia preferred trade misinvoicing over balance of payments leakages by 94 percent to 6 percent. Trade misinvoicing was also the dominant channel of illicit outflows from the Western Hemisphere (84 percent), Africa (65 percent), and developing Europe (53 percent).

According to the HMN+GER method, the ten countries with the largest outflows of illicit capital (in declining order of magnitude) were China, Mexico, Malaysia, Saudi Arabia, the Russian Federation, the Philippines, Nigeria, India, Indonesia, and the United Arab Emirates. Total outflows from China over the decade ending 2010 (US\$2,742 billion) exceeded total cumulative outflows from all other nine countries on the list (US\$1,728 billion). The new rankings imply that illicit flows impact more people more adversely than what the previous IFF reports indicated. This is because the CED+GER rankings included Kuwait, Venezuela, Qatar, and Poland among the top ten countries with the largest outflows. However, these countries have relatively much higher income and fewer people living on less than US\$2 a day, compared to the Philippines, Nigeria, India, and Indonesia which are ranked among the top ten countries under the HMN+GER methodology. *Hence, the revised rankings do a much better job of reflecting the adverse impact of illicit flows on poverty compared to the CED+GER method.*

Finally, we explored the significant statistical issues related to the recording of sovereign wealth funds (SWFs) in the balance of payments and how incomplete or incorrect recording of SWF-related transactions can lead to errors in estimating illicit flows (due to errors in recording balance of payments variables). If, for instance, there is a drawdown of reserve assets to invest in SWFs and the drawdown is fully recorded, while an SWF-related drawdown to pay off external debt is not recorded then the increased use of funds is not offset by a decline in external debt which would be reflected in an increase in unrecorded capital outflow. Had the subsequent debt repayment been correctly recorded, there would have been no change in unrecorded outflows. Errors could also be introduced in the appropriate recording of reserves due to SWF-related deposits. We conclude that the criteria as to whether specific SWF funds are to be considered part of reserve assets should not be based on mechanical rules but should be based on judgments regarding encumbrance, control, and ease of availability.

We looked at the net errors and omissions (NEO) in the balance of payments for a group of ten countries with the largest SWFs. While NEOs are driven by many factors, the purpose was to see whether there is a simple casual link between SWFs and NEOs given the statistical capacity of the SWF country. Normally we would expect countries with strong statistical systems to do a better job of capturing SWF transactions. In general, we found that there is little correlation between the balance of payments of certain countries with large SWFs and the relative strength or weakness of their statistical systems. This led us to believe that SWF transactions do not seem to adversely impact the NEO, although there are a few notable exceptions. The finding that the NEO in the balance of payments data reported by United Arab Emirates, Saudi Arabia, and Qatar to the IMF

are relatively high imply that estimates of illicit flows from these countries must be interpreted with caution due to the risk of significant measurement errors.

# I. Introduction

1. Studies at Global Financial Integrity (GFI) on illicit financial flows from developing countries have been based on the World Bank Residual method (using the change in external debt or CED version) adjusted for trade misinvoicing. Economists such as Claessens and Naudé (1993), Cumby and Levich (1989), Epstein (2005), Gunter (2004), Ndikumana and Boyce (2008), Schneider (1997), and others have used this method for many years to estimate the volume of capital flight from developing countries and entire regions. The methodology used in GFI studies has been consistent with this overall approach, except for the fact that the “traditional” approach netted out flows in both directions, while GFI’s methodology is based on gross outflows. In this report, we revisit our methodology, reaffirming the “gross outflow” approach and fine-tuning our balance of payments estimates to provide the reader with alternative estimates of illicit financial flows.
2. The need to broaden the methodology was based on two reasons. First, we looked more closely at the rationale for preferring the gross outflow approach in contrast to the traditional net approach. Some economists, such as Fuest and Riedel (2012) and Nitsch (2012), imply that our gross approach may significantly overstate the problem of capital flight.<sup>2</sup> However, the rationale for netting capital flows rests on the premise that net inflows of legitimate capital (i.e. reversal of capital flight) represent a benefit to a country. Legitimate inflows need to offset the original loss of capital through other channels either within the same year or across previous years in order to arrive at a net cumulative position over a given period. However, if we are concerned with estimating *illicit* financial flows or illegal capital flight, the netting out procedure makes little sense. This is because there is no such concept as net crime—flows in both directions are illicit. Hence, illicit inflows which cannot be used productively and are much more likely to end up in the underground economy provide little or no benefit to governments. The rationale of netting flows is reasonable in analyses of legal or “normal” capital flight. We will show that the method traditionally used by economists may well capture both “normal,” or legal, and “abnormal,” or illegal, capital flight. The gross versus net issue is therefore linked to the nature of capital (i.e. whether it is licit or illicit) which required us to examine, more closely, the types of capital included in the traditional versus GFI methodologies.
3. Second, during the course of our study on illicit flows in connection with the report *Illicit Financial Flows from Developing Countries Over the Decade Ending 2009* (henceforth the 2011 IFF Report), we noticed a sharp decline in total outflows of illicit capital from developing countries and regions in 2009. However, the 2011 IFF Report found no evidence that major

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<sup>2</sup> See, for example, *Tax Evasion and Tax Avoidance: The Role of International Profit Shifting*, Clemens Fuest and Nadine Riedel and Trade Mispricing and Illicit Flows, Volker Nitsch, in *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, edited by Peter Reuter, The World Bank, 2012, Washington DC.

developing countries adopted macroeconomic, structural, or governance-related policy measures which could account for this decline. We attributed the sharp fall in illicit flows to the slowdown in recorded source of funds (such as new loans and foreign direct investment) relative to use of funds. This can also be thought of as an increase in the latter relative to the former. Hence, the need to explain the fall in illicit outflows as a result of the global economic crisis became apparent. The question was if illicit flows reacted so strongly to an economic crisis, what is the response of licit or “normal” capital flight?

4. This report is organized as follows. Section II discusses the rationale for adding a second methodology to focus more sharply on illicit flows and minimize the risk of including legitimate capital flows. We will compare estimates of illicit flows using the new approach against the previous method based on change in external debt (CED) adjusted for trade misinvoicing based on the gross excluding reversals (GER) method. To maintain a sharp focus, section III presents our analysis of the trends in illicit outflows using the new non-normalized methodology from developing countries and regions over the period 2001-2010. Section IV discusses the impact of sovereign wealth funds (SWFs) on the reliability of estimates of illicit flows from developing countries that maintain large SWFs. The final section will draw the main conclusions of this study.



## II. Coverage of Flows in the World Bank Residual Method

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5. The World Bank Residual method estimates the gap between recorded source of funds and use of funds. The equation is quite straightforward. If a country's source of funds total US\$100 million and its use of funds only amounts to US\$75 million, then the Residual method indicates that US\$25 million in unrecorded capital must have leaked out of the balance of payments. The approach we adopted thus far in our studies assumes that if flows are unrecorded then they must be illicit, because there is no logical reason why legitimate capital transactions should go unrecorded.
6. In economic literature, the World Bank Residual measure is typically used in isolation without consideration of the balance of payments identity from which it is derived, as shown by Claessens and Naudé (1993). The conclusion that the gap between recorded flows is unrecorded (and therefore illicit) follows from this isolation. However, full balance of payments accounting reveals that the gap between the source of funds and use of funds may include some licit as well as illicit flows. The following analysis shows why licit flows may be included.
7. As Claessens and Naudé (1993) demonstrate, the equation for the World Bank Residual method can be derived directly from the balance of payments identity. Using their nomenclature, let A be the current account balance, B represent net equity flows (including net foreign direct investment and portfolio investment), C the other short-term capital of other sectors, D the portfolio investments involving other bonds, E the change in deposit-money-banks' foreign assets, F the change in reserves of the central bank, G the net errors and omissions (NEO), and H the change in external debt. Then, equation (1) demonstrates the balance of payments identity:

$$A + B + C + D + E + F + G + H = 0 \quad (1)$$

Or, 
$$C + D + E + G = - (A + B + F + H) \quad (2)$$

Equation (2) implies that recorded (and therefore legal) private capital flows (C + D + E) plus net errors and omissions (G) must equal the negative of the sum of the current account balance (A), net equity flows (B), change in reserves (F), and the change in external debt (H). The right hand side of the above equation is the World Bank Residual equation.

**Table A. The United States and China: Balance of Payments Components, 1991 1/**  
(in U.S. dollars)

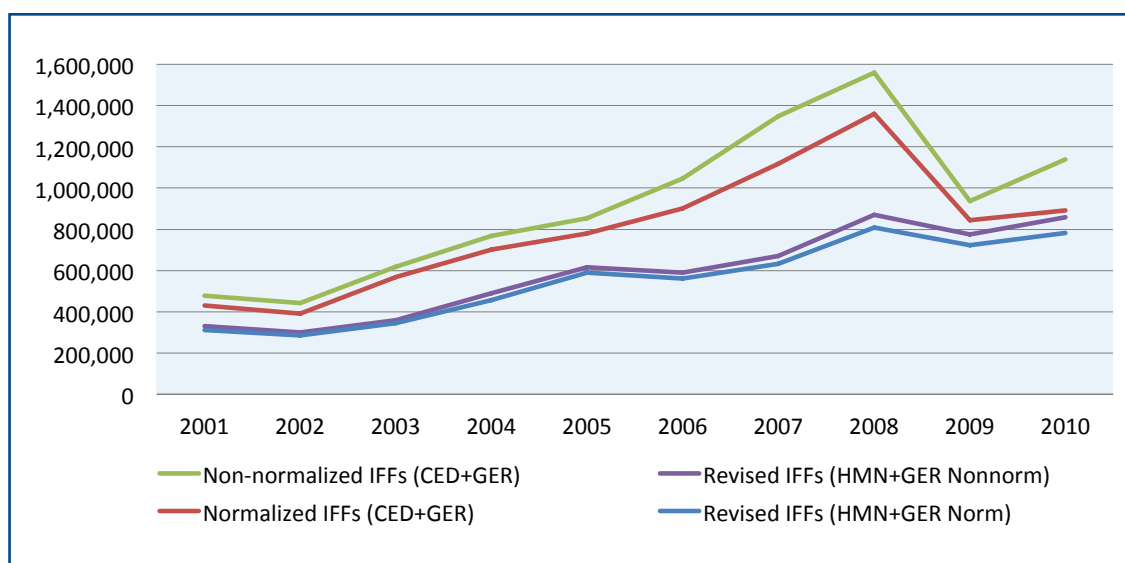
Balance of Payments Components Scale	United States (US\$ billions)	China (US\$ millions)
<b>A. Current Account</b>	<b>-3.69</b>	<b>13,765.00</b>
<b>Capital Account (B+C+D+E+F+H)</b>	<b>4.81</b>	<b>-14,298.00</b>
B. Net Equity Flows	-36.64	4,038.00
FDI abroad	-27.15	-913.00
FDI in the country	11.50	4,366.00
Portfolio invest. (corporate equities)	-20.99	585.00
C. Other short-term capital	6.40	-196.00
Other sectors	-6.17	-196.00
Resident official sector	12.57	0.00
D. Portfolio investment		
Other bonds	31.64	-8,143.00
E. Change in DMB foreign assets	-8.80	1,655.00
Short-term capital	-15.50	558.00
Long-term capital	6.70	1,097.00
F. Reserves	5.76	-14,537.00
H. Other long-term capital	6.45	2,885.00
Resident official sector	6.45	2,236.00
Other sectors	0.00	649.00
<b>G. Net errors and omissions</b>	<b>-1.12</b>	<b>533.00</b>
<b>Memoranda Items</b>		
Balance of payments check 2/	<b>0.00</b>	<b>0.00</b>
Private sector flows +NEO (C+D+E+G)	<b>28.12</b>	<b>-6,151.00</b>
World Bank Residual (A+B+F+H)	<b>-28.12</b>	<b>6,151.00</b>

- 1/ Corresponds to the format and figures published in the Balance of Payments Yearbook, Part 1, 1992, IMF. The position of items H and G are not in the order that they appear in *Recent Estimates of Capital Flight*, Stijn Claessens and David Naude (1993). As item H is classified under the capital account, the order was switched with item G.
- 2/ The balance of payments check consists of the fact that the current account plus the capital account and the net errors and omissions must sum to zero.
- 3/ According to the BOP identity, as pointed out by Claessens and Naude, the BOP equation implies that  $C+D+E+G = -(A+B+F+H)$ . The last two line items verify this for the United States and China.

8. One could estimate capital flight using either the left- or right-hand side of the above equation—the result will be equivalent. Table A demonstrates that the World Bank Residual estimates of capital flight can be derived using the 1991 balance of payments data reported by China and the United States to the IMF. Because the classification of the balance of payments items is consistent with those used by Claessens and Naudé in accordance with the Balance of Payments Manual in effect at the time, we had to use the data published in the 1992 Balance of Payments Yearbook. The reported data show that, in fact, the right hand side of the equation (private sector capital flows plus the NEO) is equal to the World Bank Residual estimate based on change in external debt (with sign reversed). This implies that the illicit component of the CED method (i.e., the NEO) is simply the difference between the CED estimates and private sector licit flows. Hence, more conservative estimates of illicit flows are based on the illicit component of the CED plus trade misinvoicing based on the gross excluding reversals (GER) method.

9. According to the above formulation, a narrower version of illicit flows can be derived simply by adding the NEO to the GER estimates of trade misinvoicing. The NEO has been traditionally used by economists as the Hot Money Narrow (HMN) method. As we pointed out in our 2008 study, there are three versions of the Hot Money method, starting with the Narrow version and progressively including more types of private sector flows.<sup>3</sup> The broader Hot Money measures yield larger estimates of capital flight. However, the broader Hot Money method suffers from the same drawback as the World Bank Residual method: both methodologies produce estimates that could include both licit *and* illicit flows. This goes against the purpose of GFI studies, which is to look solely at *illicit* flows.

**Chart 1. Volume of Illicit Financial Flows in Nominal Terms from All Developing Countries 2001-2010 1/**  
(in millions of U.S. dollars)



10. Licit capital flight can be simply estimated as the difference between the World Bank Residual estimates and the HMN. Chart 1 plots normalized and non-normalized estimates based on the CED+GER and the HMN+GER methods. The green and the purple lines represent non-normalized CED+GER and HMN+GER estimates which are also presented in Table B.<sup>4</sup> We can see that in the early 2000s, the two lines were quite close. The gap between the two lines, representing licit capital flight, increased as capital controls were eased in many large emerging markets such as in Brazil, China, India, Mexico, and Russia. The gap is widest in 2008, at the onset of the global economic crisis. Then in the following year, as outflows of legal capital flight dropped much more sharply than did illicit outflows, the gap

<sup>3</sup> Reference, *Illicit Financial Flows from Developing Countries: 2002-2006*, Dev Kar and Devon Cartwright-Smith, Global Financial Integrity, December 2008, pp. 4-5.

<sup>4</sup> See Kar, Dev, and Sarah Freitas, *Illicit Financial Flows from Developing Countries Over the Decade Ending 2009*, Global Financial Integrity, 2011 for details on the process of normalization.

narrowed followed by some widening in 2010 as licit outflows picked up along with the pace of economic activity. Outflows of licit capital fell in 2009 because economic agents retained more capital domestically due to the financial squeeze resulting from the crisis and the fact that major capital markets in the United States and Europe were in turmoil.

**Table B. Four Estimates of Capital Flight, All Developing Countries, 2001-2010**  
(in billions of U.S. dollars)

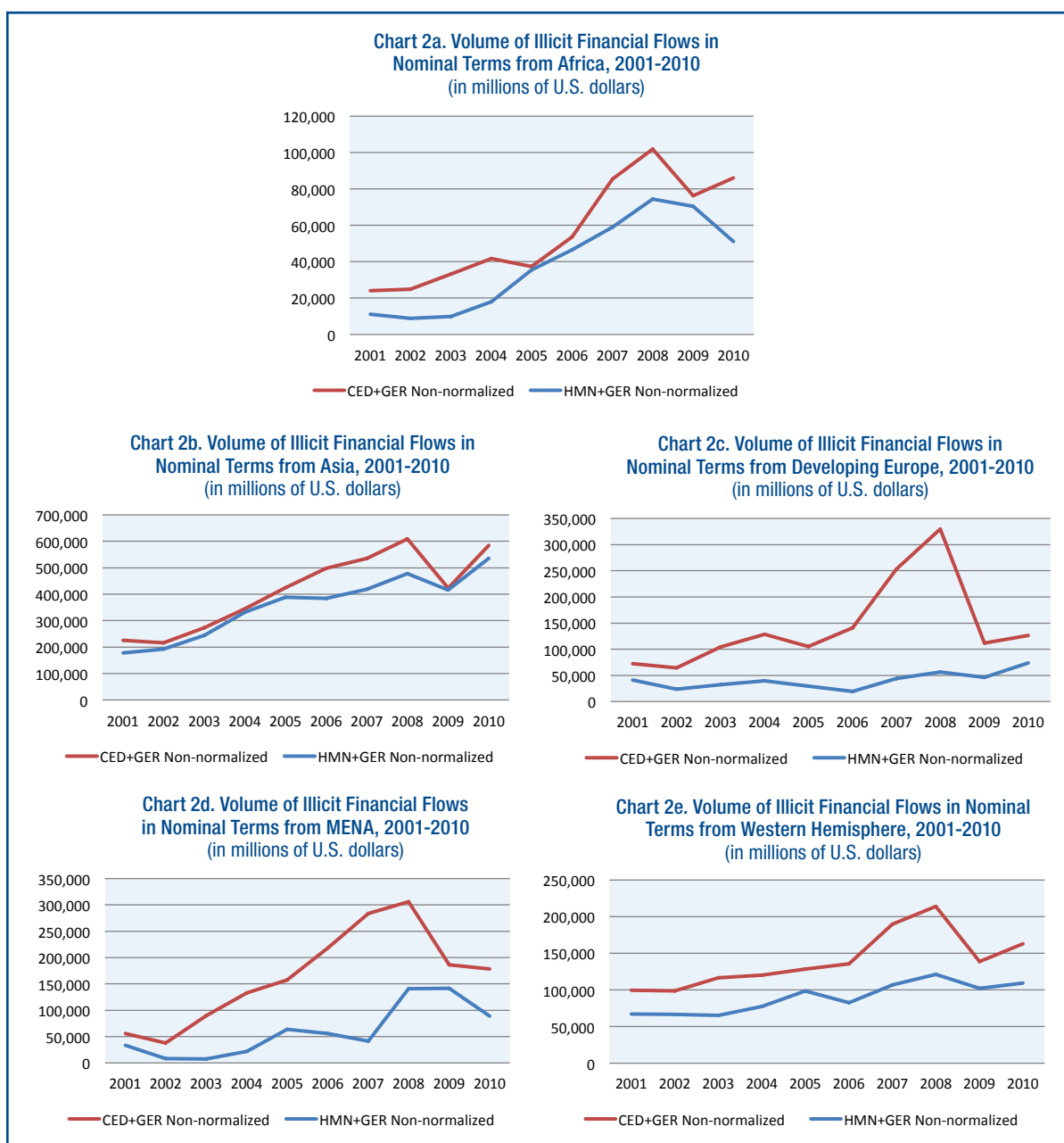
Non-normalized IFFs (CED+GER) 1/													
Region/Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average	Logarithmic
Africa	24.1	25.0	33.2	41.6	37.4	53.7	85.3	101.9	76.3	86.1	564.6	56.5	18.08
Asia	225.5	216.1	273.4	345.6	425.0	497.6	535.6	608.9	423.1	584.0	4,134.9	413.5	12.03
Developing Europe	72.3	64.4	104.1	128.7	104.9	141.0	253.0	329.2	111.7	126.3	1,435.6	143.6	10.83
MENA	55.8	37.8	89.6	133.0	157.7	218.3	283.4	305.9	186.6	178.4	1,646.4	164.6	20.21
Western Hemisphere	99.5	98.7	116.7	120.0	128.7	135.7	189.6	213.8	138.5	163.1	1,404.2	140.4	7.07
All Developing Countries	477.1	441.9	617.0	768.9	853.7	1,046.2	1,346.9	1,559.8	936.1	1,138.0	9,185.7	918.6	12.61
Normalized IFFs (CED+GER) 1/													
Region/Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average	Logarithmic
Africa	9.6	16.0	28.1	33.3	31.7	48.3	77.5	93.9	72.3	63.0	473.6	47.4	24.73
Asia	221.4	192.5	253.7	331.5	395.0	383.5	424.4	513.6	388.8	490.6	3,595.0	359.5	10.40
Developing Europe	67.3	56.0	92.3	109.5	91.0	134.4	242.2	314.5	80.4	43.3	1,230.9	123.1	4.63
MENA	49.9	32.6	84.7	128.6	151.5	210.1	218.1	288.8	175.0	158.0	1,497.3	149.7	20.07
Western Hemisphere	81.1	93.9	108.7	97.3	110.8	125.1	154.8	149.9	127.1	137.0	1,185.7	118.6	6.22
All Developing Countries	429.3	391.0	567.5	700.3	780.0	901.3	1,117.1	1,360.7	843.6	891.9	7,982.5	798.3	11.45
Revised IFFs (HMN+GER Non-normalized) 2/													
Region/Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average	Logarithmic
Africa	11.1	8.8	9.9	17.9	35.5	46.5	59.1	74.4	70.5	51.1	384.8	38.5	29.15
Asia	177.8	193.0	244.2	332.9	387.9	384.6	418.8	478.3	415.5	535.7	3,568.8	356.9	12.43
Developing Europe	41.1	23.5	32.4	39.4	29.4	19.4	44.2	56.7	46.5	73.7	406.3	40.6	8.03
MENA	33.2	8.0	7.3	22.1	63.7	55.6	41.1	140.7	141.3	89.2	602.3	60.2	31.74
Western Hemisphere	67.2	66.4	65.3	77.6	98.5	82.7	106.7	121.1	102.1	109.3	896.9	89.7	7.06
All Developing Countries	330.5	299.8	359.0	490.0	615.1	588.7	669.9	871.3	776.0	858.8	5,859.2	585.9	13.28
Revised IFFs (HMN+GER Normalized) 2/													
Region/Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average	Logarithmic
Africa	7.5	7.1	9.3	11.7	30.0	44.0	51.9	70.1	69.2	41.5	342.3	34.2	32.38
Asia	175.2	189.9	241.9	328.8	379.1	368.0	409.2	461.9	398.2	523.1	3,475.4	347.5	12.13
Developing Europe	39.2	18.9	25.7	23.5	27.1	18.5	36.6	49.7	28.6	30.2	297.8	29.8	2.94
MENA	28.1	6.7	5.5	20.4	61.1	53.0	38.5	129.5	134.6	82.2	559.6	56.0	34.01
Western Hemisphere	62.3	62.0	62.4	71.0	91.6	78.8	95.9	97.7	91.6	106.1	819.4	81.9	6.59
All Developing Countries	312.3	284.5	344.7	455.5	588.9	562.3	632.0	809.0	722.1	783.2	5,494.6	549.5	12.88

1/ Estimates include both licit as well as illicit financial flows. Estimates updated from 2011 IFF Update.

2/ Estimates pertain to illicit financial flows.

11. Charts 2a-2e show the gap between two estimates representing possible legal capital flight from the various regions of the developing world. We observe that in the case of developing Europe, the MENA region, and Western Hemisphere (charts 2c -2e)—the gap tends to widen over time, reaching a peak in 2008. In all three regions, licit outflows plunged in 2009 due to the effects of the crisis in domestic and foreign capital markets noted above. In contrast, Chart 2b indicates that the gap in Asia, which was almost nonexistent in the early 2000s,

**Chart 2. Illicit Financial Flows by Region, 2001-2010 1/**  
(in millions of U.S. dollars)



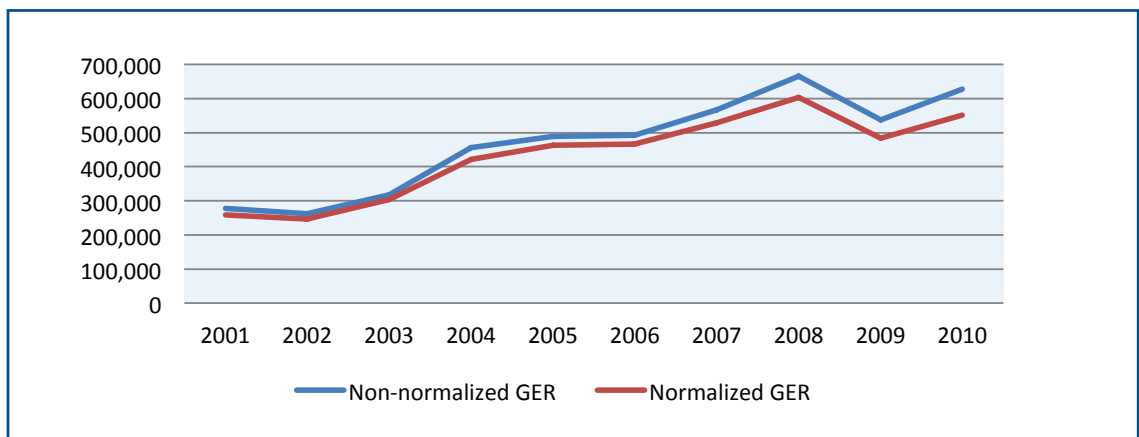
1/ Estimates of GER in the CED+GER and the HMN+GER lines are non-normalized. All tables and charts in section III of this report and Tables 1, 2, and 14 of the Appendix use non-normalized estimates, as discussed in the following section on normalization.

began to widen in 2005 and reached a peak in 2008 at the onset of the crisis, closing almost completely in 2009 as both licit and illicit outflows fell in tandem. In the last year, both types of flows recovered along with increase in global economic activity. China, Malaysia, the Philippines, and India led Asia as the major drivers of licit and illicit flows. The relaxation of capital controls by these countries over the years perhaps encouraged more legal or “normal” capital flight accounting for the widening regional gap between the CED+GER and HMN+GER measures through 2008. Further research is needed in order to analyze the factors driving licit capital flows from the various regions. For instance, legal capital flight seems to be driving the widening gap between the two measures in the case of developing Europe. In fact, the Central Bank of Russia as well as the IMF corroborates the existence of large capital flight from the country, which are predominantly recorded private sector outflows.

### a. Normalization through use of filters

12. As Chart 1 showed, the HMN+GER approach to estimating illicit flows is more conservative than the CED+GER approach, which may include some legitimate private sector capital flows.

**Chart 3. Normalized vs. Non-normalized GER, 2001-2010**  
(in millions of U.S. dollars)



Moreover, Chart 3 shows that the conservative or normalized GER estimates are so close to the non-normalized estimates that not much would be gained by generating a range. Therefore, non-normalized GER estimates will be used throughout the remainder of the report in generating both the HMN+GER and CED+GER estimates.

### III. Trends in Illicit Financial Flows from Developing Countries and Regions

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13. Table B shows estimates of illicit financial flows from developing countries based on the HMN+GER and CED+GER methods. Using non-normalized estimates, the data indicate that on average, developing countries lost between US\$585.9 billion to US\$918.6 billion per annum over the period 2001-2010. In 2010, they lost a minimum of US\$858.8 billion and as much as US\$1,138.0 billion.
14. We also observe that the HMN+GER measure has increased at a faster pace than the CED+GER measure (13.3 percent vs. 12.6 percent). The relatively faster rate of increase in purely illicit outflows is worrisome given that there is no reason for human statistical errors (included in both the CED and the HMN measures) to have increased in a systematic manner throughout the decade. In fact, with the increasing availability and adoption of new technologies, and the provision of technical assistance by the IMF to developing countries in order to build their statistical capacities, one would expect the proportion of statistical errors to decline over the past decade.<sup>5</sup> The implication is that the significant increase in illicit flows is likely to result from a worsening of governance-related drivers.
15. It is somewhat premature to make a definitive judgment as to which method provides a more accurate method for estimating illicit flows. While the HMN+GER method is the most conservative measure, it may exclude some illicit transactions (such as round-tripped FDI) which show up as recorded private sector flows. We invite our readers to provide comments on the two alternative methodologies and the reasons why one of them should be preferred over the other.
16. **For the sake of brevity and sharper focus on illicit flows, we shall henceforth confine the discussion of trends, shares, and country rankings in terms of the HMN+GER estimates.** Going by that measure, the increase in illicit flows of over US\$500 billion since 2001 implies a nominal growth rate of 13.3 percent per annum (Table C). In inflation-adjusted or real terms, illicit flows grew by 8.6 percent per annum on average (Table D), which exceeded their average rate of economic growth (6.3 percent per annum). About 20.0 percent of total outflows were channeled through balance of payments leakages while the bulk (approximately 80.0 percent) was transferred through the deliberate misinvoicing of external trade. Over the decade, the shares of outflows from trade misinvoicing and the balance of payments have fluctuated. In 2004, trade misinvoicing reached a peak of 86.1 percent of total IFFs, dropping to a low of 62.3 percent in 2009. However, in 2010 outflows through trade misinvoicing picked up again to reach 64.2 percent of the total (Table C).

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<sup>5</sup> There is no evidence that net errors and omissions have a clear increasing pattern to them; reference *IMF Committee on Balance of Payments Statistics*, Annual Report 2011, IMF, Table 1, pp. 17-18.

**Table C. Illicit Financial Flows by Region in Nominal Terms 1/**

(millions of U.S. dollars, unless otherwise indicated)

HMN (Hot Money Narrow, Balance of Payments component)								
Region/Year	2001	2002	2003	2004	2005	2006	2007	
Africa	2,597.64	3,221.96	4,147.09	1,705.94	20,296.96	17,871.45	17,825.18	
Asia	11,425.56	6,430.32	6,696.46	6,656.05	15,306.33	16,869.06	17,679.33	
Developing Europe	12,932.53	11,479.23	15,647.52	10,397.39	16,150.18	9,754.15	27,928.90	
MENA	12,844.44	4,248.36	4,243.83	2,841.25	51,940.31	44,103.30	31,300.12	
Western Hemisphere	13,725.55	13,030.16	10,447.70	12,129.15	22,021.10	7,101.79	8,805.86	
All Developing Countries	53,525.72	38,410.03	41,182.60	33,729.78	125,714.88	95,699.75	103,539.39	
GER (Gross Excluding Reversals, Trade Mispricing component)								
Region/Year	2001	2002	2003	2004	2005	2006	2007	
Africa	8,500.58	5,615.80	5,752.05	16,223.58	15,223.01	28,613.35	41,239.88	
Asia	166,408.68	186,549.71	237,461.31	326,277.67	372,635.85	367,754.60	401,161.88	
Developing Europe	28,196.78	12,030.67	16,711.71	29,026.61	13,298.00	9,606.50	16,245.02	
MENA	20,385.49	3,796.51	3,025.28	19,278.57	11,775.39	11,467.04	9,841.22	
Western Hemisphere	53,459.84	53,411.79	54,841.52	65,463.52	76,459.43	75,583.04	97,921.87	
All Developing Countries	258,803.00	246,137.54	303,518.10	421,816.06	463,176.89	466,563.29	528,479.34	
Total HMN + GER								
Region/Year	2001	2002	2003	2004	2005	2006	2007	
Africa	11,098.22	8,837.76	9,899.14	17,929.52	35,519.97	46,484.80	59,065.06	
Asia	177,834.24	192,980.03	244,157.77	332,933.72	387,942.18	384,623.66	418,841.21	
Developing Europe	41,129.31	23,509.90	32,359.23	39,424.00	29,448.18	19,360.65	44,173.92	
MENA	33,229.92	8,044.87	7,269.11	22,119.82	63,715.70	55,570.33	41,141.34	
Western Hemisphere	67,185.39	66,441.95	65,289.21	77,592.67	98,480.53	82,684.82	106,727.73	
All Developing Countries	330,477.08	299,814.50	358,974.46	489,999.73	615,106.56	588,724.27	669,949.26	
HMN Percent of Total	16.2	12.8	11.5	6.9	20.4	16.3	15.5	
GER Percent of Total	78.3	82.1	84.6	86.1	75.3	79.2	78.9	

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries.

1/ Based on cumulative outflows from the region in total outflows from developing countries over the period 2001-2010



	2008	2009	2010	Total	Share of Region in Total (in %) 1/	Percent Change 2009-2010	Logarithmic Growth 2001-2010
	23,488.48	30,941.93	20,755.05	142,851.68	12.23	-49.08	35.50
	22,225.26	66,647.09	91,726.77	261,662.22	22.41	27.34	30.67
	43,109.26	18,469.56	23,145.48	189,014.21	16.19	20.20	10.25
	114,750.53	100,655.75	67,021.29	433,949.18	37.17	-50.18	44.33
	1,804.47	22,249.87	28,820.58	140,136.22	12.00	22.80	-0.27
	205,378.00	238,964.21	231,469.16	1,167,613.50	100.00	-3.24	25.21

	2008	2009	2010	Totals	Share of Region in Total (in %) 1/	Percent Change 2009-2010	Logarithmic Growth 2001-2010
	50,915.87	39,584.24	30,301.94	241,970.30	5.16	-30.63	27.00
	456,103.67	348,866.43	443,945.48	3,307,165.27	70.49	21.42	10.91
	13,624.66	28,039.81	50,525.16	217,304.91	4.63	44.50	5.02
	25,978.67	40,684.36	22,167.25	168,399.77	3.59	-83.53	17.11
	119,301.74	79,868.07	80,433.72	756,744.54	16.13	0.70	7.27
	603,580.03	483,156.50	551,710.80	4,691,584.79	100	12.43	9.95

	2008	2009	2010	Totals	Share of Region in Total (in %) 1/	Percent Change 2009-2010	Logarithmic Growth 2001-2010
	74,404.35	70,526.16	51,056.99	384,821.97	6.57	-38.13	29.15
	478,328.93	415,513.52	535,672.25	3,568,827.49	60.91	22.43	12.43
	56,733.92	46,509.37	73,670.64	406,319.12	6.93	36.87	8.03
	140,729.20	141,340.11	89,188.53	602,348.95	10.28	-58.47	31.74
	121,106.21	102,117.94	109,254.30	896,880.76	15.31	6.53	7.06
	871,302.61	776,007.11	858,842.70	5,859,198.29	100.00	9.65	13.28
	23.6	30.8	27.0	19.9	Ave. HMN % (2001-2010)		18.1
	69.3	62.3	64.2	80.1	Ave. GER % (2001-2010)		76.0

**Table D. Illicit Financial Flows by Region in Real Terms 1/**  
(millions of 2005 U.S. dollars, unless otherwise indicated)

HMN (Hot Money Narrow, Balance of Payments component)								
Region/Year	2001	2002	2003	2004	2005	2006	2007	
Africa	3,046.90	3,867.83	4,725.81	1,830.78	20,296.96	17,074.15	16,249.92	
Asia	13,401.60	7,719.32	7,630.93	7,143.15	15,306.33	16,116.48	16,116.95	
Developing Europe	15,169.20	13,780.33	17,831.09	11,158.29	16,150.18	9,318.99	25,460.74	
MENA	15,065.87	5,099.98	4,836.05	3,049.18	51,940.31	42,135.72	28,534.03	
Western Hemisphere	16,099.37	15,642.15	11,905.65	13,016.79	22,021.10	6,784.96	8,027.66	
All Developing Countries	62,782.94	46,109.61	46,929.53	36,198.18	125,714.88	91,430.29	94,389.30	
GER (Gross Excluding Reversals, Trade Mispricing component)								
Region/Year	2001	2002	2003	2004	2005	2006	2007	
Africa	9,970.75	6,741.53	6,554.74	17,410.85	15,223.01	27,336.82	37,595.39	
Asia	195,188.91	223,945.02	270,598.45	350,155.26	372,635.85	351,347.94	365,710.00	
Developing Europe	33,073.39	14,442.30	19,043.78	31,150.83	13,298.00	9,177.93	14,809.40	
MENA	23,911.14	4,557.54	3,447.45	20,689.41	11,775.39	10,955.46	8,971.52	
Western Hemisphere	62,705.67	64,118.59	62,494.51	70,254.26	76,459.43	72,211.05	89,268.22	
All Developing Countries	324,849.86	313,804.99	362,138.93	489,660.62	489,391.68	471,029.19	516,354.53	
Total HMN + GER								
Region/Year	2001	2002	2003	2004	2005	2006	2007	
Africa	13,017.64	10,609.36	11,280.54	19,241.63	35,519.97	44,410.97	53,845.31	
Asia	208,590.52	231,664.35	278,229.38	357,298.41	387,942.18	367,464.42	381,826.96	
Developing Europe	48,242.59	28,222.64	36,874.88	42,309.12	29,448.18	18,496.92	40,270.14	
MENA	38,977.01	9,657.52	8,283.50	23,738.59	63,715.70	53,091.17	37,505.56	
Western Hemisphere	78,805.05	79,760.74	74,400.16	83,271.04	98,480.53	78,996.00	97,295.88	
All Developing Countries	387,632.81	359,914.60	409,068.46	525,858.80	615,106.56	562,459.49	610,743.84	
HMN Percent of Total	16.2	12.8	11.5	6.9	20.4	16.3	15.5	
GER Percent of Total	83.8	87.2	88.5	93.1	79.6	83.7	84.5	

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries.

1/ Current dollar estimates are deflated by the U.S. Producer Price Index base 2005 (from IMF IFS online database).

2/ Based on cumulative outflows from the region in total outflows from developing countries over the period 2001-2010.

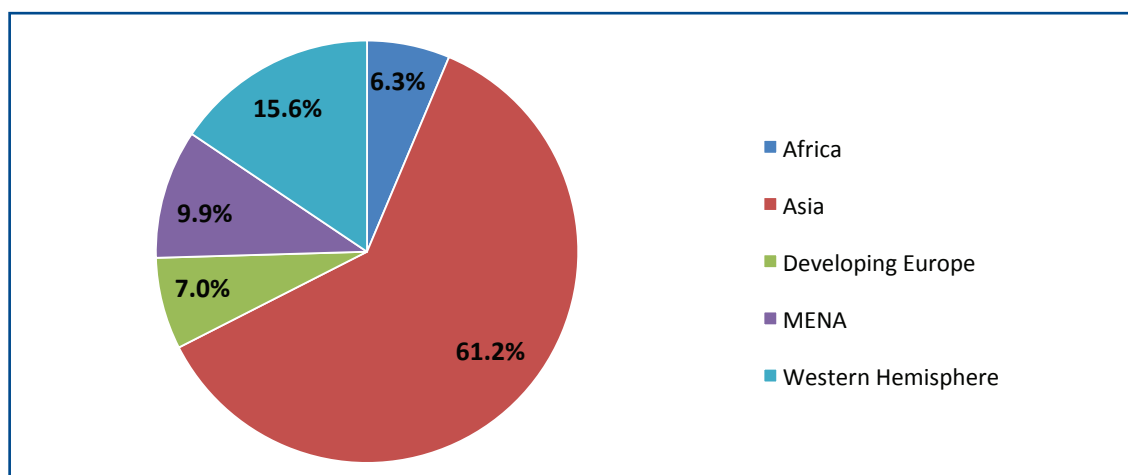
	2008	2009	2010	Totals	Share of Region in Total (in %) 2/	Percent Change 2009-2010	Logarithmic Growth 2001-2010
	19,500.26	28,166.71	17,684.04	132,443.35	12.16	-59.28	29.92
	18,451.53	60,669.44	78,154.46	240,710.20	22.11	22.37	25.30
	35,789.54	16,813.01	19,720.77	181,192.13	16.64	14.74	5.71
	95,266.49	91,627.83	57,104.52	394,659.98	36.25	-60.46	38.39
	1,498.08	20,254.26	24,556.16	139,806.16	12.84	17.52	-4.38
	170,505.90	217,531.25	197,219.94	1,088,811.83	100.00	-10.30	20.06

	2008	2009	2010	Totals	Share of Region in Total (in %) 2/	Percent Change 2009-2010	Logarithmic Growth 2001-2010
	42,270.63	36,033.88	25,818.43	224,956.03	4.95	-39.57	21.78
	378,659.67	317,576.23	378,258.85	3,204,076.19	70.52	16.04	6.35
	11,311.26	25,524.89	43,049.40	214,881.19	4.73	40.71	0.70
	21,567.63	37,035.34	18,887.36	161,798.24	3.56	-96.09	12.29
	99,044.93	72,704.62	68,532.67	737,793.96	16.24	-6.09	2.85
	552,854.12	488,874.95	534,546.71	4,543,505.60	100.00	8.54	6.13

	2008	2009	2010	Totals	Share of Region in Total (in %) 2/	Percent Change 2009-2010	Logarithmic Growth 2001-2010
	61,770.88	64,200.60	43,502.47	357,399.38	6.35	-47.58	23.83
	397,111.19	378,245.67	456,413.32	3,444,786.39	61.16	17.13	7.81
	47,100.80	42,337.90	62,770.17	396,073.32	7.03	32.55	3.59
	116,834.12	128,663.17	75,991.87	556,458.22	9.88	-69.31	26.32
	100,543.02	92,958.88	93,088.82	877,600.12	15.58	0.14	2.65
	723,360.02	706,406.21	731,766.65	5,632,317.42	100.00	3.47	8.62
	23.6	30.8	27.0	19.3	Ave. HMN % (2001-2010)		18.1
	76.4	69.2	73.0	80.7	Ave. GER % (2001-2010)		81.9

17. Adjusting the outflow estimates for inflation or for private sector flows marginally alters the regional shares found previously. Chart 4 shows the shares of cumulative illicit outflows from the various regions of the developing world over the decade ending 2010 under the HMN+GER method. We note that Asia still remains the main driver of illicit outflows from developing countries regardless of the method of estimation. On a cumulative basis, the region accounted for 61.2 percent of total outflows, mostly due to massive outflows from mainland China and India. The Western Hemisphere follows at 15.6 percent, with the Middle East and North Africa (MENA) at 9.9 percent. The MENA region has a smaller share than the Western Hemisphere in this study compared to the 2011 Update due to the fact that Algeria, Iran, and Iraq have not fully reported the balance of payments data necessary for the HMN+GER method. Developing Europe follows MENA in share size, making up 7.0 percent of illicit flows, with the balance flowing out of Africa (6.3 percent). The relative increase in outflows from Africa can be mainly attributed to a larger number of countries for which we were able to collect basic data on the balance of payments and bilateral trade flows. The relative shares are subject to the caveat that restricted data availability on important countries of certain regions may understate the regional shares and overstate others.

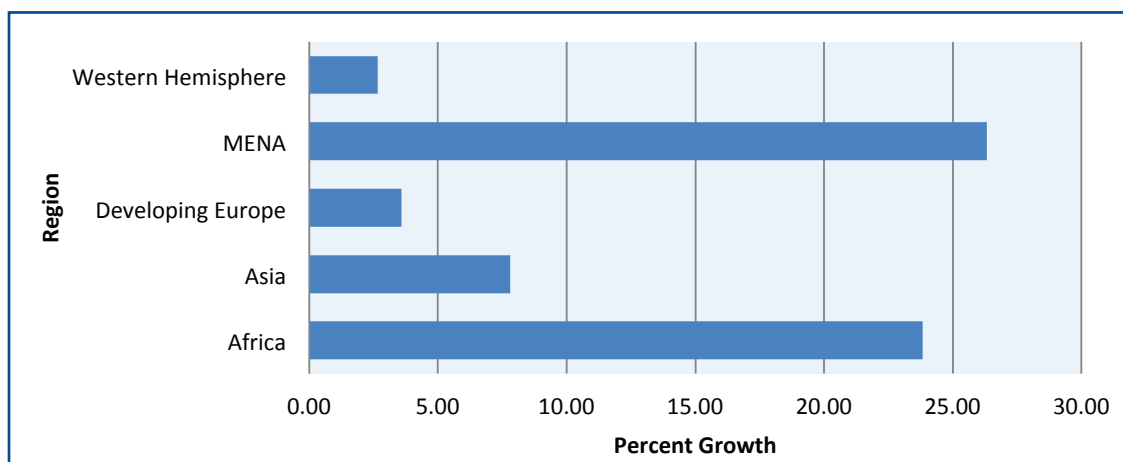
**Chart 4. Illicit Flows in Real Terms 2001-2010; Regional Shares in Developing World Total 1/**  
(in percent)



1/ Based on cumulative outflows from the region as a share of total illicit outflows from developing countries, where illicit outflows are based estimated on the HMN+GER non-normalized methodology.

18. In real or inflation-adjusted terms, outflows from MENA grew the fastest at 26.3 percent per annum on average followed by Africa (23.8 percent), Asia (7.8 percent), Europe (3.6 percent), and Western Hemisphere (2.7 percent). We note that the rapid growth of outflows from the MENA region was due mainly to the increase in crude oil prices, which drove MENA's current account surpluses. The significant positive link between illicit outflows and crude oil prices was noted in a recent study by Almounsor (2005). The real rates of growth in illicit outflows from the various regions is presented in Chart 5.

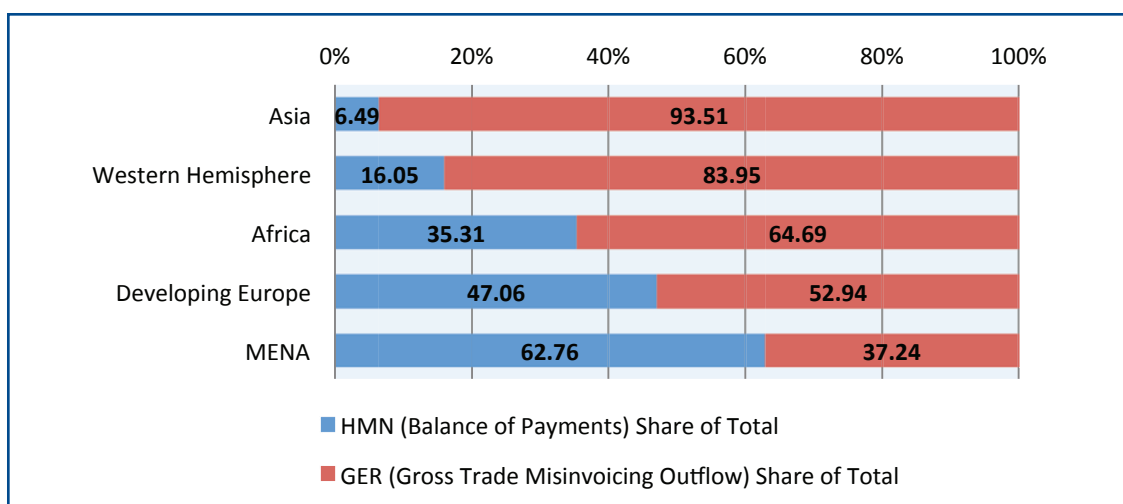
**Chart 5. Real Rates of Growth of IFFs from 2001-2010 by Region 1/**



1/ Real rates of growth are calculated as the slope of the logarithmic trend over the observed period 2001-2010. Illicit financial flows are calculated under the HMN+GER methodology.

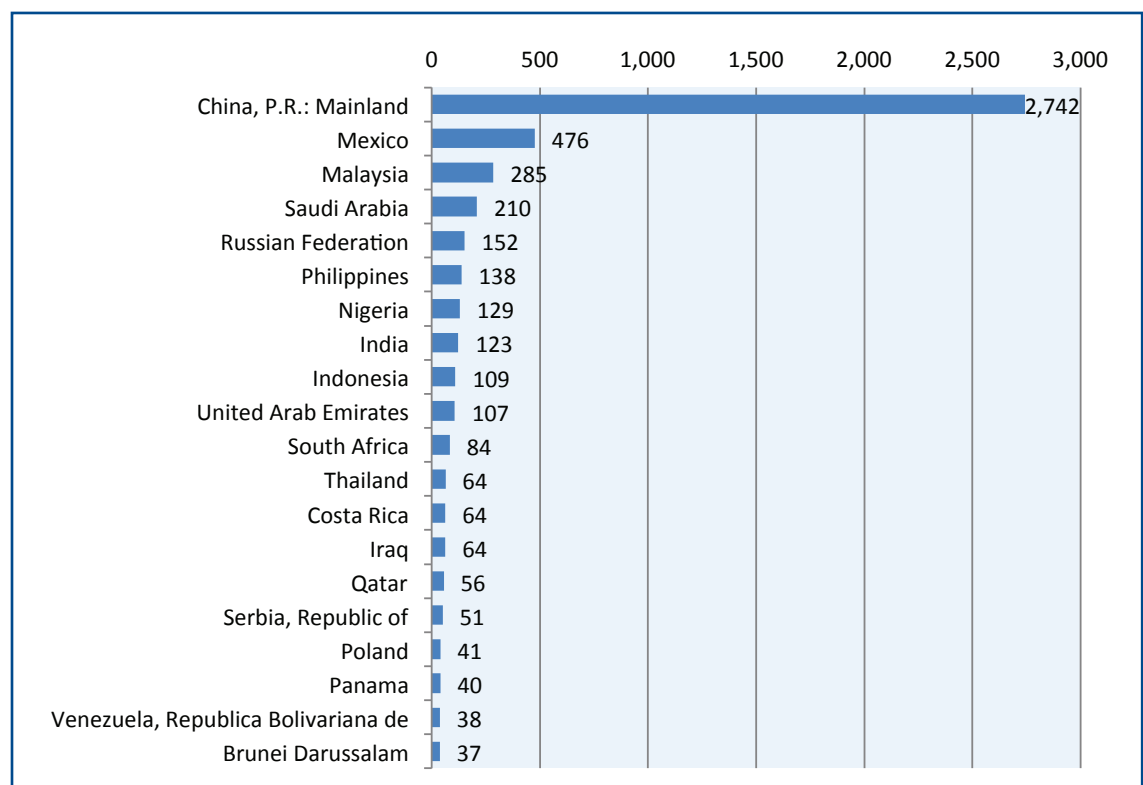
19. As noted above, the massive outflows from Asia are mainly driven by China, where the heavily preferred method of transferring illicit capital is through the misinvoicing of trade (see Chart 6).
20. Trade misinvoicing is the preferred method of transferring illicit capital from all regions except the MENA region where it accounts for only 37 percent of total outflows for the decade ending 2010 (Chart 6). In declining order of dominance, the share of trade misinvoicing in total outflows by region is Asia (94.0 percent), Western Hemisphere (84.0 percent), Africa (65.0 percent), and developing Europe (53.0 percent). Large current account surpluses of countries in the MENA region driven by crude oil exports entail larger outflows through the balance of payments. In the case of Europe, the relatively large unrecorded outflows from the Russia's balance of payments dominate regional outflows.

**Chart 6. Regional Illicit Flows in Nominal Terms 2001-2010; Shares Related to HMN and GER Components**  
(average percent shares over 10 years)



21. The countries with the ten highest illicit outflows are China, Mexico, Malaysia, Saudi Arabia, the Russian Federation, the Philippines, Nigeria, India, Indonesia, and the United Arab Emirates, in declining order of magnitude (see Chart 7). Cumulative illicit outflows from China (US\$2,742 billion) exceed total cumulative outflows from all other nine countries on the list (US\$1,728 billion).
22. Chart 7 shows the cumulative illicit outflows from the top 20 countries over the period 2001-2010. Together, the top 10 exporters of illicit capital account for 76 percent of cumulative illicit outflows from developing countries over the period (Table E). The group's share in total illicit outflows from developing countries, which was 73 percent in 2001, grew to 80 percent in 2006, and averaged 75.2 percent in 2009-2010.

**Chart 7. Top 20 Countries' Cumulative Illicit Flows, Nominal HMN+GER Non-normalized, 2001-2010**  
(in billions of U.S. dollars)



23. Given that illicit flows are mainly driven by macroeconomic issues captured by corruption perceptions indicators, the size of the underground economy, and weak regulatory institutions, we can expect governance related drivers to take a back seat in explaining such outflows. Rather, to the extent that the HMN+GER method only captures illicit flows, if the HMN+GER method did in fact capture only illicit flows, we would expect to see a stronger correlation between such outflows and governance-related indicators, noted above. We plan to study this issue in more detail in the context a case study on Russia (to be published in early 2013).

**Table E. Total Illicit Financial Flows from the Top Ten Developing Countries 1/**  
(in billions of U.S.dollars)

Country/Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total Illicit Outflows	Average of Outflows (where data is available)
<b>China, Mainland</b>	<b>142.20</b>	<b>153.80</b>	<b>183.53</b>	<b>251.06</b>	<b>283.48</b>	<b>296.08</b>	<b>326.66</b>	<b>348.42</b>	<b>336.11</b>	<b>420.36</b>	<b>2,741.70</b>	<b>274.17</b>
Non-normalized HMN	4.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.38	52.94	99.05	9.91
Non-normalized GER	137.47	153.80	183.53	251.06	283.48	296.08	326.66	348.42	294.73	367.43	2,642.65	264.26
China's Percent of all country IFF	43%	51%	51%	51%	46%	50%	49%	40%	43%	49%	47%	
<b>Mexico</b>	<b>36.30</b>	<b>36.71</b>	<b>38.43</b>	<b>41.21</b>	<b>48.10</b>	<b>49.51</b>	<b>61.97</b>	<b>61.13</b>	<b>51.07</b>	<b>51.17</b>	<b>475.61</b>	<b>47.56</b>
Non-normalized HMN	3.30	1.90	4.41	4.82	3.87	1.13	2.46	0.00	16.50	17.74	56.13	5.61
Non-normalized GER	33.00	34.81	34.02	36.39	44.23	48.38	59.51	61.13	34.58	33.43	419.48	41.95
Mexico's Percent of all country IFF	11%	12%	11%	8%	8%	8%	9%	7%	7%	6%	8%	
<b>Malaysia</b>	<b>13.07</b>	<b>12.54</b>	<b>17.73</b>	<b>19.58</b>	<b>28.08</b>	<b>29.62</b>	<b>32.48</b>	<b>37.35</b>	<b>30.41</b>	<b>64.38</b>	<b>285.24</b>	<b>28.52</b>
Non-normalized HMN	2.39	0.39	0.00	0.00	6.63	7.46	5.20	8.59	5.24	21.66	57.58	5.76
Non-normalized GER	10.67	12.15	17.73	19.58	21.45	22.16	27.28	28.76	25.17	42.72	227.66	22.77
Malaysia's Percent of all country IFF	4%	4%	5%	4%	5%	5%	5%	4%	4%	7%	5%	
<b>Saudi Arabia</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>36.44</b>	<b>21.02</b>	<b>16.34</b>	<b>32.97</b>	<b>64.89</b>	<b>38.30</b>	<b>209.96</b>	<b>21.00</b>
Non-normalized HMN	0.00	0.00	0.00	0.00	34.75	20.56	15.63	30.03	60.75	34.38	196.10	19.61
Non-normalized GER	0.00	0.00	0.00	0.00	1.69	0.46	0.72	2.94	4.13	3.92	13.86	1.39
Saudi Arabia's Percent of all country IFF	0%	0%	0%	0%	6%	4%	2%	4%	8%	4%	4%	
<b>Russian Federation</b>	<b>28.70</b>	<b>6.08</b>	<b>11.68</b>	<b>20.36</b>	<b>7.91</b>	<b>0.00</b>	<b>13.35</b>	<b>11.28</b>	<b>8.60</b>	<b>43.64</b>	<b>151.59</b>	<b>15.16</b>
Non-normalized HMN	9.56	6.08	9.18	5.87	7.91	0.00	13.35	11.28	1.73	8.29	73.23	7.32
Non-normalized GER	19.14	0.00	2.50	14.49	0.00	0.00	0.00	0.00	6.88	35.35	78.35	7.84
Russian Federation's Percent of all country IFF	9%	2%	3%	4%	1%	0%	2%	1%	1%	5%	3%	
<b>Philippines</b>	<b>6.54</b>	<b>7.09</b>	<b>11.18</b>	<b>12.24</b>	<b>17.48</b>	<b>17.80</b>	<b>22.46</b>	<b>18.11</b>	<b>8.29</b>	<b>16.62</b>	<b>137.82</b>	<b>13.78</b>
Non-normalized HMN	0.00	0.00	0.90	0.27	1.80	1.59	2.08	1.12	0.00	1.99	9.75	0.98
Non-normalized GER	6.54	7.09	10.29	11.97	15.68	16.21	20.38	16.99	8.29	14.63	128.07	12.81
Philippines' Percent of all country IFF	2%	2%	3%	2%	3%	3%	3%	2%	1%	2%	2%	
<b>Nigeria</b>	<b>0.91</b>	<b>0.00</b>	<b>0.00</b>	<b>1.70</b>	<b>17.83</b>	<b>19.14</b>	<b>19.30</b>	<b>24.18</b>	<b>26.33</b>	<b>19.65</b>	<b>129.04</b>	<b>12.90</b>
Non-normalized HMN	0.00	0.00	0.00	0.00	17.34	17.15	14.40	20.74	26.33	15.35	111.31	11.13
Non-normalized GER	0.91	0.00	0.00	1.70	0.48	1.98	4.90	3.44	0.00	4.30	17.73	1.77
Nigeria's Percent of all country IFF	0%	0%	0%	0%	3%	3%	3%	3%	3%	2%	2%	
<b>India</b>	<b>7.88</b>	<b>8.29</b>	<b>9.45</b>	<b>22.61</b>	<b>30.94</b>	<b>10.51</b>	<b>4.92</b>	<b>26.82</b>	<b>0.28</b>	<b>1.61</b>	<b>123.32</b>	<b>12.33</b>
Non-normalized HMN	0.71	0.19	0.00	0.00	0.54	0.00	0.00	0.00	0.28	1.61	3.33	0.33
Non-normalized GER	7.17	8.10	9.45	22.61	30.40	10.51	4.92	26.82	0.00	0.00	119.99	12.00
India's Percent of all country IFF	2%	3%	3%	5%	5%	2%	1%	3%	0%	0%	2%	
<b>Indonesia</b>	<b>0.32</b>	<b>2.87</b>	<b>15.12</b>	<b>17.64</b>	<b>11.38</b>	<b>12.72</b>	<b>15.49</b>	<b>16.54</b>	<b>11.56</b>	<b>5.21</b>	<b>108.86</b>	<b>10.89</b>
Non-normalized HMN	0.00	1.76	3.51	3.09	0.18	0.00	1.37	0.24	2.97	1.48	14.61	1.46
Non-normalized GER	0.32	1.11	11.61	14.54	11.20	12.72	14.12	16.30	8.59	3.73	94.25	9.43
Indonesia's Percent of all country IFF	0%	1%	4%	4%	2%	2%	2%	2%	1%	1%	2%	
<b>United Arab Emirates</b>	<b>4.60</b>	<b>0.00</b>	<b>0.80</b>	<b>1.00</b>	<b>5.50</b>	<b>11.80</b>	<b>0.00</b>	<b>51.70</b>	<b>23.50</b>	<b>7.60</b>	<b>106.50</b>	<b>10.65</b>
Non-normalized HMN	4.60	0.00	0.80	1.00	5.50	11.80	0.00	51.70	23.50	7.60	106.50	10.65
Non-normalized GER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
U.A.E.'s percent of All Country IFF	1%	0%	0%	0%	1%	2%	0%	6%	3%	1%	2%	
<b>Total of top 10 Countries</b>	<b>240.52</b>	<b>227.39</b>	<b>287.92</b>	<b>387.39</b>	<b>487.16</b>	<b>468.19</b>	<b>512.98</b>	<b>628.50</b>	<b>561.05</b>	<b>668.55</b>	<b>4,469.65</b>	<b>446.96</b>
<b>Top 10 Countries as percent of all country IFFs</b>	73%	76%	80%	79%	79%	80%	77%	72%	72%	78%	76%	
<b>Developing World total</b>	<b>330.48</b>	<b>299.81</b>	<b>358.97</b>	<b>490.00</b>	<b>615.11</b>	<b>588.72</b>	<b>669.95</b>	<b>871.30</b>	<b>776.01</b>	<b>858.84</b>	<b>5,859.20</b>	<b>585.92</b>

1/ Top 10 country rankings based on cumulative illicit outflows (non-normalized HMN+GER) over the period 2001-2010.

24. Table F shows the change in country rankings between the 2011 IFF Report utilizing the CED+GER method and this 2012 IFF Report, adding the HMN+GER calculation. China retains the top spot by far, while Mexico and Saudi Arabia retain the second and fourth ranks respectively. However, Malaysia moves up two ranks and several countries move from the 11-20 rankings up to the top ten, including the Philippines, Nigeria, India, and Indonesia. The United Arab Emirates slips from the 7<sup>th</sup> place in the CED+GER rankings to the 10<sup>th</sup> place while Qatar comes in at the 15<sup>th</sup> place.
25. The new rankings imply that corruption and the resulting illicit flows impacts more people more adversely than what the IFF previous reports indicated. Specifically, if we consider that Kuwait, Venezuela, Qatar, and Poland, which are countries with lower populations and a smaller proportion of people living on less than US\$2 a day, compared to the Philippines, Nigeria, India, and Indonesia which have much larger populations with a far greater proportion of people who are considered poor by that measure, it is apparent that the revised rankings do a better job of measuring the adverse impact of illicit flows on poverty. The issue of entrenched poverty among the previous list of countries with the ten highest illicit outflows pales in comparison to the ten highest exporters of illicit capital indicated by the HMN+GER method.

**Table F. Changes in Cumulative Non-Normalized Illicit Outflow Rankings in Nominal Terms**

Rank	2011 Update (CED+GER)	Population Under US\$2 per Day (%)	2012 Update (HMN+GER)	Population Under US\$2 per Day (%)
1	China, Mainland	29.79 (2008)	China, Mainland	29.79 (2008)
2	Mexico	5.19 (2008)	Mexico	5.19 (2008)
3	Russian Federation	0.05 (2009)	Malaysia	2.27 (2009)
4	Saudi Arabia	.	Saudi Arabia	.
5	Malaysia	2.27 (2009)	Russian Federation	0.05 (2009)
6	Kuwait	21.69 (2009)	Philippines	41.53 (2009)
7	United Arab Emirates	.	Nigeria	84.49 (2010)
8	Venezuela, Rep. Bol. de	12.91 (2006)	India	68.72 (2010)
9	Qatar	.	Indonesia	46.12 (2010)
10	Poland	0.2 (2009)	United Arab Emirates	.

1/ "2011 Update" refers to the report, *Illicit Financial Flows from Developing Countries Over the Decade Ending 2009*, Global Financial Integrity, December 2011. "2012 Update" refers to the report *Illicit Financial Flows from Developing Countries: 2001-2010*, Global Financial Integrity, December 2012.

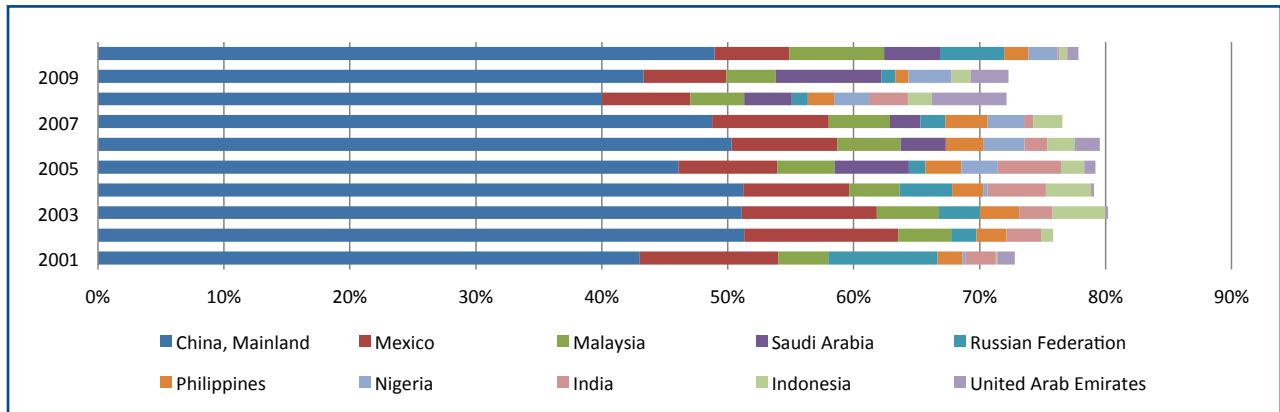
2/ Source, GFI staff estimates and World Bank Development Indicators database. Years are in parentheses and represent the latest period for which data was available.

26. The role of specific countries in driving overall illicit flows from developing countries has varied over time. If we compare the share of each country at the beginning of the period (2001) with the average share for the period, then among the top ten countries, the share of illicit outflows from the country in total outflows have increased for all countries except the Russian Federation (see Table F). China's role in driving illicit flows from developing countries remained strong, accounting for an average of 47 percent of all illicit outflows over the decade. Though China's share has fluctuated over the past ten years, in 2010 it increased to 49 percent, a high that has not been reached since 2007. Chart 8 shows that Saudi Arabia



and Nigeria, which are exporters of oil, are now becoming more important sources of illicit capital. As shown in Chart 9, oil prices and illicit outflows seem to be significantly correlated. Russia is an oil exporter where this link does not hold. The reason behind the link between oil prices and illicit outflows will be explored in a forthcoming case study on Russia.

**Chart 8. Top 10 Countries of 2010 Tracking Nominal Illicit Financial Flows**  
(as percent of Developing World Total)



27. The private sector in developing countries transfers illicit capital into the global shadow financial system through different channels, depending on the country of origin. For instance, while trade mispricing is the preferred method of sending illicit funds out of China, the balance of payments (captured by the HMN method) is the major channel for transferring unrecorded capital from oil exporters such as Nigeria, the Russian Federation, Saudi Arabia, and Indonesia. Mexico and Malaysia are the only oil exporters where trade mispricing is the preferred method of transferring illicit capital abroad.
28. The accompanying “heat map” of the distribution of illicit flows from developing countries (Chart 10) provides a bird’s eye view of the problem in terms of the severity of the issue in relation to the absolute volume of outflows. It should be noted that a heat map based on the distribution of illicit flows to GDP or illicit flows to population will present quite a different picture from the one presented here based on level outflows only (see Chart 10). For instance, China, which is the largest exporter of illicit capital, would, by virtue of its enormous economy, has an outflow to GDP ratio that will be lower than many developing countries. At the same time, countries with a relatively small economy would likely register much higher ratios than the largest exporters of such capital.

**Chart 9. Oil Prices and Illicit Flows Out of Five Major Countries 1/**  
(in millions of U.S. dollars or oil prices in U.S. dollars per barrel)



1/ These countries, among the top ten exporters of illicit capital, are also some of the world's leading oil exporters.

**Chart 10. Heat Map of Cumulative Illicit Financial Flows from Developing Countries, 2001-2010**  
(in millions of U.S dollars)

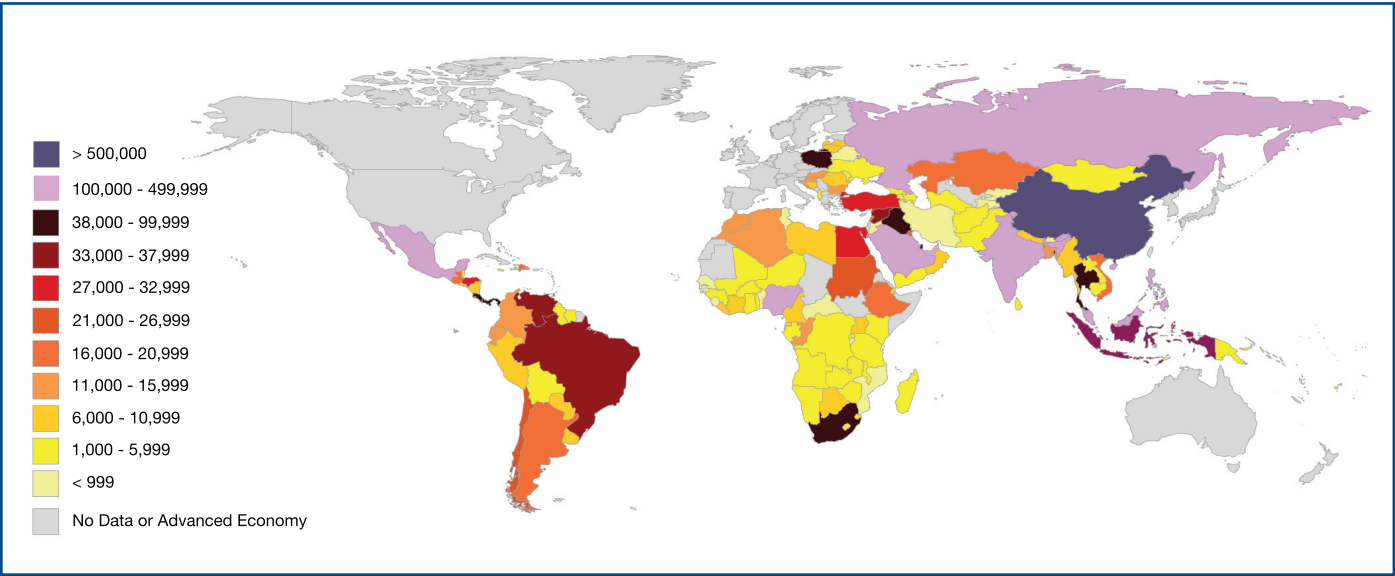


Chart design by E.J. Fagan.



## IV. Special Issues: Sovereign Wealth Funds

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29. This section presents a discussion of whether and how the large sovereign wealth funds (SWFs) of certain countries can impact estimates of illicit financial flows from them. The purpose of this discussion is to shed light on how estimates of unrecorded capital flows can be subject to significant errors in measurement for certain countries that maintain large SWFs.
30. SWFs are government-owned long-term investment funds that are typically funded by the transfer of foreign exchange assets. While the SWFs of some countries are relatively new, others have existed for decades. There have always been different reasons for governments to establish SWFs. Kiribati, a small Pacific island country, set up the Revenue Equalization Reserve Fund in 1956 to stabilize mining receipts. Today, however, the objective of Kiribati's SWF is to "save for a rainy day," i.e. to ride out global economic downturns that can have particularly adverse impacts on small open economies. Norway, on the other hand, views its SWF as a pension fund. Oil exporting countries like Saudi Arabia, Kuwait, Qatar, and the United Arab Emirates set up SWFs in order to make provisions for the day when their primary resource finally runs out. So the SWFs in the case of countries mainly dependent on oil exports tend to work as an insurance fund in the long run and as a stabilization fund in the medium term to smooth out fluctuations in revenues from oil exports.
31. Appendix Table 14 presents basic information on the major SWFs by country of ownership, name of investment funds, the size of assets under management, date of inception, origin of funds, and the average illicit flows from the country in question. This is not to suggest that illicit outflows have anything to do with SWFs—the intention of placing the data in the same table is to facilitate the discussion of statistical issues. Concerns about the transparency of operations and transactions of SWFs have increased in recent years along with the rising importance of SWFs in the international financial system. Assets under management in SWFs are expected to grow further as the reserve assets of countries in current account surplus grow. The IMF, in a recent staff study, has noted this concern and suggested some steps to improve transparency.<sup>6</sup>
32. The lack of transparency and of an agreed accounting framework that is consistent across SWFs militates against the achievement of high-quality balance of payments statistics, which in turn detracts from the reliability of illicit flow estimates. Note that only the portion attributable to the CED component (based on the World Bank Residual method) is impacted by the incomplete or incorrect recording of SWF-related transactions in the balance of payments. SWF-related statistical issues do not affect estimates of trade misinvoicing.

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<sup>6</sup> Reference, *Sovereign Wealth Funds—A Work Agenda*, Prepared by the Monetary and Capital Markets and Policy Development and Review Departments, International Monetary Fund, February 29, 2008.

However, as the overwhelming portion of illicit flows from most oil exporting countries from the Middle East (Saudi Arabia, Kuwait, United Arab Emirates, Qatar) are driven by balance of payments leakages, outflow estimates involving these countries may be over- or understated depending upon the nature of recording errors related to SWF transactions. That said, users of balance of payments data cannot correct for these recording errors in SWF-related transactions. In fact, SWF-related transactions may not be included at all in the balance of payments if opacity related to SWF transactions and operations is high.

33. *Sovereign Wealth Funds—A Work Agenda*<sup>7</sup> notes that “....it is important that sufficient data on SWF’s activities are captured in the relevant macroeconomic datasets”, meaning that the quality of fiscal, national accounts, and other datasets may be affected apart from balance of payments statistics. The IMF report notes that, as of the date of publication, “in a number of cases” SWF-related transactions and operations are **not** included in a member country’s balance of payments or its international investment position (IIP) data.
34. There are also significant statistical issues related to the recording of SWF-related transactions in the balance of payments. Incomplete or incorrect recording of SWF-related transactions can lead to errors in the recording of specific balance of payments variables, such as reserve assets. For instance, say there is a drawdown of reserve assets to invest in SWFs and the drawdown is fully recorded, while an SWF-related drawdown to pay off external debt is not. Then the increased use of funds (which is not offset by a decline in the change in external debt) would show up as an increase in unrecorded capital outflow. However, the debt repayment, if correctly recorded, would imply no change in unrecorded outflows. Errors could also be introduced in the appropriate recording of reserves due to SWF-related deposits. For instance, if the government and the central bank both assume control over an SWF-related addition to reserves due to a misunderstanding of the nature of control over the assets, then the central bank would record the addition, thereby understating the unrecorded portion. There is no information on whether such errors in recording are systemic.
35. Errors due to misclassification of SWF-related reserve assets are noted in the Sixth Edition of the IMF’s Balance of Payments Manual (BPM6), which notes that “Some governments create special purpose government funds, usually called sovereign wealth funds (SWFs). The establishment of a special purpose government fund raises the issue of whether or not the external assets held in the fund should be included in reserve assets.” (paragraph 6.93). If legal or administrative guidance encumbers the assets, then they are not readily available to the central bank and as such should not be counted as reserve assets. So the criteria as to whether specific SWF funds are a part of reserve assets or not are not straightforward and

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<sup>7</sup> Reference, op.cit.

involve some judgment involving encumbrance, control, ready availability, etc. Specifically, BPM6 notes that:

*“If the special purpose government fund’s external assets are on the books of the central bank, or an agency of the central government, that allows the monetary authorities control over the disposition of funds, then the presumption is that the assets are reserve assets (provided all other criteria for being a reserve asset are met). On the other hand, if the funds are held in a long-term fund with a separate legal identity, the presumption is that they should not be included in reserve assets, not least because the ready availability criterion is less likely to be met.”*  
(paragraph 6.95).

36. Furthermore, the Manual notes that in some cases where the assets are invested in a separate investment corporation, there may be an agreement that such assets can be readily called back if needed. In other cases, funds could be withdrawn during the annual budgetary process.
37. The following guidance is reproduced verbatim for the benefit of BOP compilers involved in the accounting of SWF transactions and operations:

*“Any final determination of whether an asset can be classified as a reserve asset or not, depends on an examination of the circumstances: namely, is the asset readily available to the monetary authorities and is there a liquid claim of a resident entity on a nonresident in foreign currency? But in the absence of legal or administrative impediments, and given the fungibility of assets, even assets that had been earmarked as part of a special purpose government fund—but that could be used to meet balance of payments financing needs and other related purposes—are reserve assets (subject to the other criteria being met, including, importantly, the control of the monetary authorities over the disposition of the funds).*

*Assets held in special purpose government funds that meet the definition of reserve assets are classified within reserve assets depending on their nature. So, if the special purpose government funds hold deposits, securities, and other reserve assets, these are classified as such within reserve assets. Assets held in a resident special purpose government fund that are claims on nonresidents but do not meet the criteria to be classified as reserve assets are classified in the financial account and IIP under the appropriate instrument and functional category. If special purpose government*

*funds own direct investment equity and debt securities that could be classified in either direct investment or reserves assets, as general guidance, in the hierarchy of the balance of payments and IIP between direct investment and reserve assets, the equity securities should be classified as direct investment ahead of reserve assets, and debt securities should be classified as reserve assets ahead of direct investment.” (paragraphs 6.97-6.98).*

38. It should be noted that if SWF transactions are not recorded properly, or are recorded differently by two agencies that have not coordinated their data compilation systems, then the errors in classification and/or recording will show up as larger net errors and omissions (NEO) in the balance of payments.
39. Note also that there are many reasons for NEOs, including statistical errors in recording, valuation changes, illicit flows, SWFs, etc. One cannot say that larger NEOs are only caused by the incomplete recording of SWF-related transactions. Nevertheless, the information presented in the following table provides an indication of whether countries with sizeable SWFs tend to have larger NEOs than those that do not or those that have much stronger statistical systems.
40. Appendix Table 15 presents data on net errors and omissions (NEOs) and the financial account balance for ten countries with the largest SWFs. The purpose is to explore whether there is a link between SWFs and NEOs given statistical capacity. Normally, we would expect countries with strong statistical systems to do a better job of capturing SWF transactions. Caution must be exercised in interpreting the data in that table. We must bear in mind the fact that the NEO is impacted by many factors not just the accuracy and coverage of SWF transactions. Nevertheless, keeping this caveat in mind, the balance of payments of certain countries with large SWFs and comparatively weaker statistical systems such as the United Arab Emirates, Saudi Arabia, and Qatar show relatively high NEOs which range from 40-120 percent of the financial account balance on average over the period 2001 to 2010. On the other hand, there are other oil producing countries among the ten highest exporters of illicit capital, such as Kuwait and Russia, where the impact of SWF accounting seems to be more limited (ranging from 16 to 24 percent). Norway, an oil-exporting country with the third largest SWF but a strong statistical system has a relatively high NEO, averaging nearly 33 percent of its financial account balance. Singapore and the United States, with strong statistical systems in place and significantly large SWFs, record NEOs that range from 9-13 percent on average. China, with the largest SWF, records an NEO that is not unreasonably large. This leads us to believe that its SWF transactions do not seem to adversely impact the NEO.



## V. Conclusions

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41. This report adds to the World Bank Residual methodology a second, more narrowly focused, methodology for estimating illicit financial flows. The methodology is based on the Hot Money Narrow method adjusted for the misinvoicing of trade (HMN+GER) using non-normalized and normalized estimates for the GER component. In accordance with the rationale for excluding illicit inflows, both the HMN+GER and CED+GER methods consider illicit outflows only and set inflows to zero. We then showed that normalization to arrive at a conservative estimate of illicit flows through the HMN+GER method would not produce an estimate substantially lower than the non-normalized one. The main reason for the close proximity of the range is that trade misinvoicing from most countries including China and India is larger than 10 percent of exports in almost all years, so that the normalized and non-normalized GER estimates are nearly equal.
42. A comparison of illicit flows from developing countries under the CED+GER and HMN+GER methods showed them to be reasonably correlated. According to the non-normalized CED+GER method, illicit outflows over the period 2001-2010 averaged US\$918 billion per annum, while under the non-normalized HMN+GER method they averaged US\$586 billion per annum. The gap between the estimates comprising of licit outflows widened during the three years prior to the global economic crisis (2006-2008), but fell sharply in the last two years as legal capital flight plunged in the wake of the crisis as a result of lower growth and the tighter squeeze on the availability of capital domestically. In 2010, the CED+GER approach shows that developing countries lost US\$1.13 trillion through illicit financial flows while the HMN+GER shows that they lost US\$859 billion. The following trends and patterns are based on the HMN+GER method.
43. Asia still remains the primary driver of illicit flows from developing countries led by China. In fact, five of the ten countries with the highest illicit outflows are in Asia (China, Malaysia, the Philippines, India, and Indonesia). The Western Hemisphere follows at 15.6 percent of total outflows while the MENA region contributed 9.9 percent of total outflows. In inflation-adjusted terms, outflows from MENA grew the fastest at 26.3 percent followed by Africa (23.8 percent), Asia (7.8 percent), developing Europe (3.6 percent), and Western Hemisphere (2.7 percent). The rapid growth in illicit outflows from the MENA region can be traced to the increase in crude oil prices.
44. According to our estimates, trade misinvoicing is the preferred method of transferring illicit capital from all regions except the MENA region, where it accounted for just 37 percent of total outflows over the decade ending 2010. Large current account surpluses are the main drivers of illicit outflows from the balance of payments of countries in that region.

45. The countries with the ten highest outflows are China, Mexico, Malaysia, Saudi Arabia, Russia, the Philippines, Nigeria, India, Indonesia, and the United Arab Emirates in declining order of magnitude. Cumulative outflows from China (US\$2,742 billion) exceed total cumulative outflows from all other nine countries (US\$1,728 billion). The top ten countries account for 76.2 percent of cumulative illicit flows from all developing countries over this period. The Philippines, India, Indonesia, and Nigeria in the current list of the top ten exporters of illicit capital displace Kuwait, Venezuela, Qatar, and Poland respectively. In doing so, the Hot Money Narrow list accentuates the impact of illicit flows on poverty because the four new entrants (the Philippines, India, Indonesia, and Nigeria) have a much higher combined population with a significantly larger share of people living on less than US\$2 a day than the ones they displaced (Kuwait, Venezuela, Qatar, and Poland).
46. The special issues section of the report highlighted the problem of estimating illicit flows from some developing countries with large SWFs. The discussion pointed out that if SWF transactions are not properly recorded or are recorded in an inconsistent manner by different government agencies, then the errors in classification or recording will show up as larger net errors and omissions (NEOs) in the balance of payments (in relation to their financial account balance). Based on data presented in Appendix Table 15, we show that the balance of payments of certain countries with large SWFs and comparatively weaker statistical systems such as the United Arab Emirates, Saudi Arabia, and Qatar show relatively high NEOs, which range from 40-120 percent of the financial account balance on average over the period 2001 to 2010. On the other hand, there are other oil producing countries among the ten highest exporters of illicit capital, such as Kuwait and Russia, where the impact of SWF accounting seems to be more limited (ranging from 16 to 24 percent). Norway, an oil-exporting country with the third largest SWF but a strong statistical system has a surprisingly high NEO which averaged nearly 33 percent of its financial account balance. Singapore and the United States with the fifth and tenth largest SWFs respectively show much smaller SWFs ranging from 9-13 percent on average. China with the largest SWF records an NEO that is not unreasonably large which lead us to believe that its SWF transactions are, for the most part, properly reflected in its balance of payments.

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# Glossary

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## Glossary of Databases

**IMF Balance of Payments (BOP):** IMF database that provides international transactions data and International Investment Position (IIP) data. BOP data begin as early as 1960 for some countries but IIP data are only available starting 2002. For the purposes of calculating illicit financial flows, the following time series can be found in this database: current account, foreign direct investment, and change in reserves.

**IMF Direction of Trade Statistics (DOTS):** IMF database containing data on exports and imports of goods on a bilateral basis, beginning in 1980. No bilateral trade data are available for services or for specific commodities.

**IMF International Financial Statistics (IFS):** IMF database containing macroeconomic data, including monetary, fiscal, prices, and national accounts, starting in 1948. For the purposes of calculating illicit financial flows, supplementary trade data are used if the country does not report Direction of Trade Statistics.

**World Bank Global Development Finance (GDF):** World Bank database that provides external debt and financial flows statistics for countries that report public and publicly-guaranteed debt under the World Bank's Debtor Reporting System (DRS). Data typically begins in 1960.

## Glossary of Terms

**Balance of Payments:** is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of an economy with the rest of the world. Transactions, for the most part between residents and nonresidents, consist of those involving goods, services, and income; those involving financial claims on, and liabilities to, the rest of the world; and those (such as gifts) classified as transfers. While the current account mainly consists of exports and imports of goods and services and worker remittances, the financial account includes transactions involving foreign direct investment, portfolio capital flows, changes in reserve holdings of the central bank—line items that are necessary to estimate illicit flows based on the World Bank Residual method.

**Change in External Debt (CED):** is a version of the World Bank Residual method that includes change in external debt as an indicator of new loans (i.e., a source of funds for a country). The World Bank Residual method estimates unrecorded (defined to be illicit) outflows from the balance of payments by estimating the gap between source and use of funds. Note that the CED measure only

includes gross illicit *outflows* from a country, occurring when source of funds is greater than use of funds (in other words, calculations have a positive sign). Thus, when the use of funds exceeds the source of funds, that is, when there are inward transfers of illicit capital (calculations have a negative sign), the CED method sets illicit flows to zero for that year. In contrast, economists have typically netted out illicit inflows from outflows under the traditional World Bank Residual method.

**Current Account Balance:** Covered in the current account are all transactions (other than those in financial items) that involve economic values and occur between resident and nonresident entities. Also covered are offsets to current economic values provided or acquired without a quid pro quo. Specifically, the major classifications are *goods and services*, *income*, and *current transfers*.

**Export Under-invoicing:** A country's exports to the world are compared to world imports from that country, adjusted for cost of insurance and freight. Illicit outflows from a country are indicated whenever exports of goods from that country are understated relative to the reporting of world imports from that country adjusted for the cost of insurance and freight.

**External Debt:** (World Bank definition) measure of debt owed to nonresidents repayable in foreign currency, goods, or services. Total external public and publicly guaranteed debt includes long-term debt, use of IMF credit, and short-term debt. While private non-guaranteed debt is also included in total debt, the data are not comprehensive for some developing countries.

**Foreign Direct Investment:** measure of all net transactions between a direct investor in one economy and a direct investment enterprise (recipient) in another economy.

**Gross Excluding Reversals (GER):** method of calculating gross illicit *outflows* defined as export under-invoicing and import over-invoicing. In other words, GER calculations are based on the sum of discrepancies between (i) a country's exports and world imports from that country and (ii) a country's imports and world exports to that country. The absolute value of the export under-invoicing, which is a negative estimate under (i), is added to import over-invoicing to arrive at a GER estimate.

**Hot Money Narrow (HMN):** more conservative measure of illicit financial flows from the balance of payments than the CED.

**Illicit Financial Flows:** funds that are illegally earned, transferred, or utilized and cover all *unrecorded* private financial outflows that drive the accumulation of foreign assets by residents in contravention of applicable laws and regulatory frameworks.

**Import Over-invoicing:** A country's imports from the world (adjusted for cost of insurance and freight) are compared to world exports to that country. Illicit outflows from a country will be indicated if the country's imports are overstated with respect to world exports to that country.

**Non-normalized:** Change in External Debt (CED) or Gross Excluding Reversals (GER) calculations which have not been subjected to the normalization process. Non-normalized estimates represent the upper bound (robust estimate) of the possible range of illicit flows.

**Normalized:** Under the CED+GER method, the normalization process subjects both the Change in External Debt (CED) calculations and the Gross Excluding Reversals (GER) calculations for the entire list of developing countries, for which data are available, to two filters: (i) estimates must have the right sign (indicating outflow, rather than inflow) in the majority of the years covering the sample period and (ii) exceed the threshold (10 percent) with respect to exports valued at free-on-board (or f.o.b.) basis. Normalized estimates represent a lower bound (conservative estimate) of the possible range of illicit flows. Normalization is not required under the HMN+GER method, because it is already much more conservative than the normalized CED+GER method.

**Change in Reserves:** According to the IMF, net “transactions in assets that are considered by the monetary authorities of an economy to be available for use in funding payments imbalances, and, in some instances, meeting other financial needs”.

**Trade Misinvoicing:** Traditional method in which a country’s exports (respectively, imports) to the world are compared to world imports (respectively, exports) *from* that country to determine export or import under- and over-statement. Export under-invoicing and Import over-invoicing reflect illicit outflows, while export-over-invoicing and import under-invoicing reflect illicit inflows. Traditionally, economists have netted out illicit inflows from outflows thereby understating the adverse impact of illicit flows on developing countries. As illicit inflows are also unrecorded, they cannot be taxed by the government and are generally unusable for legitimate productive purposes. Hence, only gross outflows through trade mispricing as considered in the GER method (see definition of GER).

**World Bank Residual Method:** measures a country’s source of funds (inflows of capital) vis-à-vis its recorded use of funds (outflows and/or expenditures of capital). Source of funds includes increases in net external indebtedness and the net inflow of foreign direct investment. Use of funds includes the current account deficit that is financed by the capital account flows and additions to central bank reserves. Illicit outflows (inflows) exist when the source of funds exceeds (falls short of) the uses of funds. Traditionally, economists have netted out illicit inflows from outflows thereby understating the adverse impact of illicit flows on developing countries. As illicit inflows are also unrecorded, they cannot be taxed by the government and are generally unusable for legitimate productive purposes. Hence, only gross outflows are considered in the Change in External Debt (CED) method (see definition of CED).





# Appendix Tables

**Table 1. HMN and GER Components in Total Illicit Flows from Developing Countries and Regions, 2001-2010**  
(in millions of 2005 U.S. dollars and in percent)

Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
Africa-HMN	3,047	3,868	4,726	1,831	20,297	17,074	16,250	19,500	28,167	17,684	13,244
Africa-GER	9,971	6,742	6,555	17,411	15,223	27,337	37,595	42,271	36,034	25,818	22,496
HMN Percent of Total	23.4%	36.5%	41.9%	9.5%	57.1%	38.4%	30.2%	31.6%	43.9%	40.7%	35%
GER Percent of Total	76.6%	63.5%	58.1%	90.5%	42.9%	61.6%	69.8%	68.4%	56.1%	59.3%	65%
Asia-HMN	13,402	7,719	7,631	7,143	15,306	16,116	16,117	18,452	60,669	78,154	24,071
Asia-GER	195,189	223,945	270,598	350,155	372,636	351,348	365,710	378,660	317,576	378,257	320,407
HMN Percent of Total	6.4%	3.3%	2.7%	2.0%	3.9%	4.4%	4.2%	4.6%	16.0%	17.1%	6%
GER Percent of Total	93.6%	96.7%	97.3%	98.0%	96.1%	95.6%	95.8%	95.4%	84.0%	82.9%	94%
Developing Europe-HMN	15,169	13,780	17,831	11,158	16,150	9,319	25,461	35,790	16,813	19,721	18,119
Developing Europe-GER	33,073	14,442	19,044	31,151	13,298	9,178	14,809	11,311	25,525	43,049	21,488
HMN Percent of Total	31.4%	48.8%	48.4%	26.4%	54.8%	50.4%	63.2%	76.0%	39.7%	31.4%	47%
GER Percent of Total	68.6%	51.2%	51.6%	73.6%	45.2%	49.6%	36.8%	24.0%	60.3%	68.6%	53%
MENA-HMN	15,066	5,100	4,836	3,049	51,940	42,136	28,534	95,266	91,628	57,105	39,466
MENA-GER	23,911	4,558	3,447	20,689	11,775	10,955	8,972	21,568	37,035	18,887	16,180
HMN Percent of Total	38.7%	52.8%	58.4%	12.8%	81.5%	79.4%	76.1%	81.5%	71.2%	75.1%	63%
GER Percent of Total	61.3%	47.2%	41.6%	87.2%	18.5%	20.6%	23.9%	18.5%	28.8%	24.9%	37%
Western Hemisphere-HMN	16,099	15,642	11,906	13,017	22,021	6,785	8,028	1,498	20,254	24,556	13,981
Western Hemisphere-GER	62,706	64,119	62,495	70,254	76,459	72,211	89,268	99,045	72,705	68,532	73,779
HMN Percent of Total	20.4%	19.6%	16.0%	15.6%	22.4%	8.6%	8.3%	1.5%	21.8%	26.4%	16%
GER Percent of Total	79.6%	80.4%	84.0%	84.4%	77.6%	91.4%	91.7%	98.5%	78.2%	73.6%	84%
All Developing Countries-HMN	62,783	46,110	46,930	36,198	125,715	91,430	94,389	170,506	217,531	197,220	108,881
All Developing Countries-GER	324,850	313,805	362,139	489,661	489,392	471,029	516,355	552,854	488,875	534,545	454,350
HMN Percent of Total	16.2%	12.8%	11.5%	6.9%	20.4%	16.3%	15.5%	23.6%	30.8%	27.0%	18%
GER Percent of Total	83.8%	87.2%	88.5%	93.1%	79.6%	83.7%	84.5%	76.4%	69.2%	73.0%	82%

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries.

**Table 2. Country Rankings: by Largest Average IFF Estimates, 2001-2010**  
(in millions of U.S. dollars)

Rank	Country	Average of all years (where data is available)	Rank	Country	Average of all years (where data is available)
1	China, P.R.: Mainland	274,170	36	Argentina	1,670
2	Mexico	47,561	37	Guatemala	1,622
3	Malaysia	28,524	38	Bulgaria	1,585
4	Saudi Arabia	20,996	39	Croatia	1,525
5	Russian Federation	15,159	40	Congo, Republic of	1,503
6	Philippines	13,782	41	Algeria	1,471
7	Nigeria	12,904	42	Hungary	1,442
8	India	12,332	43	Bahamas, The	1,408
9	Indonesia	10,886	44	Bangladesh	1,406
10	United Arab Emirates	10,650	45	Morocco	1,283
11	Iraq	10,597	46	Colombia	1,254
12	South Africa	8,390	47	Ecuador	1,135
13	Thailand	6,426	48	Nicaragua	1,093
14	Costa Rica	6,370	49	Liberia	1,083
15	Qatar	5,611	50	Montenegro	1,042
16	Serbia, Republic of	5,144	51	Equatorial Guinea	1,003
17	Poland	4,077	52	Bahrain, Kingdom of	971
18	Panama	3,987	53	Peru	952
19	Venezuela, Republica Bolivariana de	3,791	54	Libya	902
20	Brunei Darussalam	3,704	55	Romania	884
21	Brazil	3,510	56	El Salvador	867
22	Syrian Arab Republic	3,260	57	Bosnia and Herzegovina	836
23	Egypt	3,099	58	Nepal	801
24	Honduras	3,081	59	Paraguay	754
25	Turkey	2,896	60	Oman	741
26	Sudan	2,637	61	Uruguay	736
27	Kuwait	2,419	62	Myanmar	728
28	Chile	2,417	63	Lithuania	692
29	Aruba	2,354	64	Cote d'Ivoire	688
30	Lebanon	2,105	65	Latvia	680
31	Kazakhstan	1,916	66	Uganda	680
32	Trinidad and Tobago	1,884	67	Cameroon	674
33	Vietnam	1,753	68	Turkmenistan	659
34	Dominican Republic	1,695	69	Botswana	604
35	Ethiopia	1,685	70	Zambia	548
			71	Armenia, Republic of	526

Source: Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries and external debt data reported by those countries to the World Bank.

Note: Countries below rank 143 either had missing data (see Table 9) or have received only illicit inflows over the period 2001-2010.

Note: IFF estimates calculated using the HMN+GER non-normalized methodology.

Rank	Country	Average of all years (where data is available)
72	Cambodia	498
73	Angola	483
74	Georgia	477
75	Malawi	469
76	Macedonia, FYR	461
77	Ukraine	460
78	Congo, Democratic Republic of	438
79	Azerbaijan, Republic of	429
80	Madagascar	423
81	Namibia	420
82	Jamaica	415
83	Bolivia	386
84	Zimbabwe	365
85	Lao People's Democratic Republic	342
86	Tanzania	333
87	Swaziland	308
88	Guinea	306
89	Djibouti	292
90	Gabon	289
91	Mali	289
92	Fiji	270
93	Moldova	252
94	Pakistan	251
95	Yemen, Republic of	249
96	Burkina Faso	242
97	Afghanistan, Islamic Republic of	240
98	Ghana	218
99	Papua New Guinea	203
100	Barbados	198
101	Togo	196
102	Guyana	188
103	Lesotho	179
104	Rwanda	158
105	Sri Lanka	153
106	Albania	136
107	Samoa	125

Rank	Country	Average of all years (where data is available)
108	Niger	122
109	Mauritius	114
110	Kenya	112
111	Mongolia	112
112	Belize	107
113	Suriname	104
114	Solomon Islands	91
115	Tajikistan	91
116	Jordan	88
117	Mozambique	85
118	Belarus	78
119	Kyrgyz Republic	71
120	Dominica	64
121	Seychelles	62
122	Haiti	57
123	Sierra Leone	53
124	Maldives	52
125	Burundi	49
126	Gambia, The	47
127	Guinea-Bissau	46
128	Tunisia	31
129	Bhutan	27
130	Tonga	27
131	Cape Verde	27
132	Benin	23
133	Central African Republic	18
134	Comoros	16
135	Vanuatu	13
136	Antigua and Barbuda	12
137	St. Vincent and the Grenadines	7
138	Sao Tome and Principe	6
139	Timor-Leste, Dem. Rep. of	5
140	St. Lucia	4
141	Grenada	4
142	St. Kitts and Nevis	3
143	Senegal	1

**Table 3. HMN ( Balance of Payments)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	.	.	.	.	.	.	.	.	.	.	.
Albania	0	0	0	0	0	0	0	0	0	0	0	0
Algeria	.	.	.	.	203	1,962	500	3,358	2,673	1,265	9,961	1,660
Angola	309	68	822	0	574	0	1,641	1,236	0	181	4,830	483
Antigua and Barbuda	16	40	5	19	11	11	7	4	7	0	120	12
Argentina	2,810	1,890	1,428	0	0	0	0	0	0	1,036	7,164	716
Armenia, Republic of	0	4	2	6	0	16	2	0	0	0	29	3
Aruba	5	0	0	0	0	0	0	12	14	0	31	3
Azerbaijan, Republic of	1	87	112	50	126	256	361	845	1,461	990	4,288	429
Bahamas, The	0	0	0	0	150	0	0	0	53	283	485	49
Bahrain, Kingdom of	0	0	700	0	0	0	0	30	66	0	796	80
Bangladesh	106	349	0	25	629	623	905	120	649	56	3,462	346
Barbados	0	0	0	0	0	0	0	7	0	65	71	7
Belarus	1	289	13	0	0	286	0	194	0	0	784	78
Belize	0	9	35	4	8	8	39	12	5	0	120	12
Benin	0	0	0	10	0	0	0	0	6	0	16	2
Bhutan	.	.	.	.	.	0	137	0	0	0	137	27
Bolivia	203	640	174	625	372	105	112	0	454	802	3,485	349
Bosnia and Herzegovina	0	0	0	0	0	0	68	74	0	0	142	14
Botswana	744	0	161	293	0	0	0	0	0	0	1,198	120
Brazil	498	154	933	2,145	201	0	3,152	0	347	3,292	10,722	1,072
Brunei Darussalam	2,205	2,329	1,838	1,190	3,969	5,786	5,860	8,232	5,420	.	36,829	4,092
Bulgaria	0	716	889	0	1,218	986	3,052	4,229	0	0	11,089	1,109
Burkina Faso	0	4	4	0	2	9	0	0	0	.	20	2
Burundi	31	0	14	19	75	0	37	0	12	0	189	19
Cambodia	0	0	40	46	14	72	45	45	8	29	300	30
Cameroon	162	177	0	0	48	0	0	0	0	0	388	39
Cape Verde	24	8	12	0	0	9	0	108	40	68	268	27
Central African Republic	.	.	.	.	.	.	.	.	.	.	.	.
Chad	.	.	.	.	.	.	.	.	.	.	.	.
Chile	861	952	724	270	1,324	1,526	450	0	0	558	6,665	666
China, Mainland	4,732	0	0	0	0	0	0	0	41,383	52,936	99,051	9,905
Colombia	151	0	0	0	0	0	0	127	0	0	278	28
Comoros	.	.	.	.	.	.	.	.	.	.	.	.
Congo, Democratic Republic of	0	236	0	0	46	17	170	0	0	0	468	47
Congo, Republic of	12	220	116	93	0	0	199	.	.	.	639	91
Costa Rica	0	51	0	0	0	0	0	48	0	197	296	30
Cote d'Ivoire	0	26	888	0	38	38	0	44	37	25	1,096	110
Croatia	474	638	1,355	1,305	1,288	1,722	1,659	2,263	1,637	1,010	13,352	1,335
Djibouti	0	0	0	16	45	54	0	55	0	117	286	29
Dominica	0	0	0	0	0	0	0	0	0	6	6	1

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	452	139	1,568	981	458	123	0	16	129	961	4,827	483
Ecuador	514	317	0	0	0	0	0	1	131	0	963	96
Egypt	1,146	0	0	45	2,431	0	0	2,896	0	2,145	8,663	866
El Salvador	457	615	143	0	449	485	0	0	0	0	2,149	215
Equatorial Guinea	.	.	.	.	.	.	.	.	.	.	.	.
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	229	915	390	354	0	0	158	0	501	3,075	5,623	562
Fiji	0	135	47	0	101	153	0	0	72	0	508	51
Gabon	104	125	260	357	439	.	.	.	.	.	1,285	257
Gambia, The	.	.	0	3	34	7	42	31	0	87	203	25
Georgia	0	0	6	0	0	62	33	44	0	20	166	17
Ghana	51	0	0	0	0	0	37	374	1,259	0	1,721	172
Grenada	0	0	10	1	25	0	0	0	0	0	36	4
Guatemala	0	65	61	0	0	0	0	0	0	359	485	48
Guinea	2	0	157	0	0	2	0	0	0	0	161	16
Guinea-Bissau	0	3	0	4	5	1	0	5	9	4	32	3
Guyana	45	1	20	43	68	53	82	56	0	177	545	54
Haiti	0	0	0	0	0	0	0	0	46	0	46	5
Honduras	43	0	0	0	204	332	353	0	346	0	1,278	128
Hungary	0	0	0	2,100	2,580	2,744	349	3,373	771	2,187	14,104	1,410
India	711	190	0	0	541	0	0	0	279	1,613	3,335	333
Indonesia	0	1,763	3,510	3,094	179	0	1,368	238	2,974	1,480	14,605	1,461
Iran, Islamic Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Iraq	.	.	.	.	0	0	3,660	9,245	6,116	7,951	26,971	4,495
Jamaica	14	61	0	22	0	0	0	350	0	0	447	45
Jordan	154	130	0	0	0	206	0	0	0	0	490	49
Kazakhstan	654	0	932	1,016	1,800	3,128	2,966	5,746	783	0	17,025	1,703
Kenya	0	0	277	67	234	0	258	0	0	0	835	83
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	0	0	0	0	0	0	0	0
Kuwait	2,869	1,869	574	0	0	0	4,732	10,049	0	0	20,092	2,009
Kyrgyz Republic	0	22	0	19	0	0	356	0	241	71	711	71
Lao PDR	51	130	82	0	0	403	735	409	523	402	2,735	273
Latvia	0	71	13	0	296	0	212	577	0	0	1,169	117
Lebanon	.	0	0	734	610	2,818	5,997	1,746	3,042	0	14,946	1,661
Lesotho	0	179	71	0	0	0	0	0	117	0	368	37
Liberia	.	.	.	.	39	98	76	43	288	106	651	108
Libya	1,206	0	0	0	1,450	0	0	1,753	0	2,137	6,545	655
Lithuania	0	0	0	0	49	289	54	0	0	0	392	39
Macedonia, FYR	1	10	33	0	6	0	52	31	0	0	133	13
Madagascar	57	0	0	35	0	.	.	.	.	.	92	18
Malawi	221	0	27	0	24	40	0	153	55	0	520	52

**Table 3. HMN ( Balance of Payments) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	2,394	391	4	0	6,633	7,460	5,201	8,592	5,242	21,663	57,580	5,758
Maldives	4	0	0	0	0	0	0	0	0	0	4	0
Mali	0	6	0	26	24	37	0	0	74	0	168	17
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	86	0	0	0	0	0	0	0	0	0	86	9
Mexico	3,304	1,903	4,411	4,816	3,870	1,128	2,458	0	16,496	17,739	56,126	5,613
Moldova	0	24	0	0	0	0	0	0	0	0	24	2
Mongolia	32	0	6	0	81	14	212	775	0	0	1,120	112
Montenegro	.	.	.	.	.	.	0	0	0	0	0	0
Morocco	0	182	297	282	404	521	0	412	521	160	2,778	278
Mozambique	60	60	0	0	0	0	0	0	0	0	120	12
Myanmar	14	19	78	141	604	626	336	1,362	1,010	2,132	6,322	632
Namibia	18	0	89	0	0	0	0	0	0	317	424	42
Nepal	0	67	0	0	0	0	0	107	0	181	355	36
Nicaragua	0	327	100	405	63	401	34	314	79	300	2,024	202
Niger	0	9	15	0	0	0	18	57	5	.	104	12
Nigeria	0	0	0	0	17,345	17,151	14,399	20,740	26,330	15,350	111,315	11,131
Oman	555	842	565	396	859	9	0	0	1,031	0	4,258	426
Pakistan	0	0	44	0	202	0	0	51	0	729	1,026	103
Panama	499	0	0	0	359	0	474	0	0	0	1,332	133
Papua New Guinea	2	0	0	0	59	15	0	73	0	91	239	24
Paraguay	0	263	41	0	214	0	212	0	0	0	729	73
Peru	0	0	0	0	0	407	138	123	596	0	1,265	126
Philippines	0	0	898	274	1,799	1,592	2,082	1,119	0	1,988	9,752	975
Poland	0	981	1,961	0	798	0	3,302	12,161	10,045	10,462	39,710	3,971
Qatar	1,031	1,260	0	5,568	4,703	0	2,310	2,206	11,384	0	28,462	2,846
Romania	0	856	289	0	0	0	1,320	2,065	1,729	119	6,378	638
Russian Federation	9,558	6,078	9,179	5,870	7,913	0	13,347	11,277	1,726	8,285	73,234	7,323
Rwanda	0	0	0	9	0	0	0	6	0	6	20	2
Samoa	.	.	.	3	0	0	2	39	0	0	44	6
Sao Tome and Principe	0	0	0	0	0	6	10	32	6	10	64	6
Saudi Arabia	0	0	0	0	34,751	20,560	15,629	30,026	60,754	34,380	196,100	19,610
Senegal	0	0	0	0	0	0	0	0	0	0	0	0
Serbia, Republic of	.	.	.	.	.	.	0	212	76	0	288	72
Seychelles	0	10	5	0	1	0	0	0	0	0	15	2
Sierra Leone	0	16	50	54	62	28	15	32	7	4	267	27
Solomon Islands	0	0	0	6	0	0	0	2	0	12	21	2
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	0	485	0	0	0	0	0	0	804	0	1,289	129
Sri Lanka	0	0	114	189	72	106	165	0	0	881	1,527	153
St. Kitts and Nevis	6	0	0	8	0	1	0	19	0	0	34	3
St. Lucia	0	2	0	0	15	0	1	10	9	0	37	4

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	11	0	0	17	23	16	0	0	0	0	67	7
Sudan	24	0	14	0	0	88	0	131	733	861	1,851	185
Suriname	0	0	0	0	0	0	0	100	19	168	287	29
Swaziland	0	0	92	0	41	238	701	0	55	0	1,127	113
Syrian Arab Republic	0	160	0	256	137	1,488	746	1,226	747	0	4,761	476
Tajikistan	.	56	30	32	77	265	337	18	0	0	815	91
Tanzania	297	551	340	96	704	0	0	443	380	480	3,290	329
Thailand	327	0	0	710	0	0	0	0	0	3,837	4,874	487
Timor-Leste, Dem. Rep. of	.	.	.	.	.	3	9	7	0	5	25	5
Togo	5	0	10	0	0	0	0	0	0	0	16	2
Tonga	0	0	14	38	12	12	39	9	27	.	151	17
Trinidad and Tobago	235	425	0	269	444	143	75	0	0	0	1,591	159
Tunisia	0	34	47	128	27	37	37	0	0	0	311	31
Turkey	2,091	759	0	0	0	0	0	0	0	0	2,849	285
Turkmenistan	.	.	.	.	.	.	.	.	.	.	.	.
Uganda	7	124	164	270	454	9	7	0	161	0	1,196	120
Ukraine	152	889	834	0	0	0	458	0	0	0	2,334	233
United Arab Emirates	0	800	1,000	5,500	11,800	0	51,700	23,500	7,600	0	101,900	10,190
Uruguay	0	2,394	0	0	174	152	279	0	0	565	3,564	356
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	0	21	22	25	17	4	5	0	37	0	130	13
Venezuela, Rep. Bolivariana de	3,601	2,781	795	2,503	13,589	2,211	939	608	3,520	2,313	32,861	3,286
Vietnam	847	1,038	0	915	396	0	578	1,045	9,022	3,690	17,530	1,753
Yemen, Republic of	110	0	0	0	0	0	0	0	0	0	110	11
Zambia	154	0	169	0	64	40	58	0	62	65	611	61
Zimbabwe	0	0	0	0	.	.	0	0	0	0	0	0

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and external debt data reported to the IMF and World Bank respectively by member countries.

**Table 4. CED Normalized (Change in External Debt - Balance of Payments)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	.	0	0	13,934	0	761	0	535	0	15,230	1,904
Albania	0	0	0	0	0	0	0	0	0	0	0	0
Algeria	0	1,942	2,699	0	0	0	0	0	0	0	4,642	464
Angola	0	2,155	2,455	1,982	4,269	0	7,777	0	0	0	18,637	1,864
Antigua and Barbuda	63	53	98	0	16	101	0	0	0	0	332	33
Argentina	17,984	12,366	20,898	3,479	0	0	0	16,666	11,678	12,331	95,401	9,540
Armenia, Republic of	225	182	155	306	0	129	459	284	235	517	2,491	249
Aruba	0	42	224	260	74	532	724	0	88	0	1,944	194
Azerbaijan, Republic of	0	462	482	0	0	1,664	3,269	14,215	11,573	16,456	48,122	4,812
Bahamas, The	0	0	0	0	0	0	0	0	0	0	0	0
Bahrain, Kingdom of	0	738	909	1,101	1,883	4,574	2,168	4,534	3,103	3,268	22,280	2,228
Bangladesh	0	2,081	1,257	787	0	2,535	1,402	2,289	0	3,254	13,605	1,361
Barbados	0	0	0	0	0	0	0	0	0	0	0	0
Belarus	0	0	0	0	0	0	0	0	0	0	0	0
Belize	0	0	48	0	37	58	78	0	0	0	222	22
Benin	0	0	0	0	0	0	0	0	0	0	0	0
Bhutan	.	.	.	.	0	0	174	0	0	0	174	29
Bolivia	0	938	914	663	604	0	0	0	1,123	0	4,242	424
Bosnia and Herzegovina	0	0	0	0	0	0	0	0	0	0	0	0
Botswana	868	0	876	1,238	559	824	901	790	2,059	1,360	9,476	948
Brazil	0	8,136	9,582	0	0	0	0	0	0	0	17,718	1,772
Brunei Darussalam	2,019	1,945	2,585	2,925	.	5,261	4,958	7,116	4,468	6,048	37,325	4,147
Bulgaria	0	953	1,991	1,676	0	5,085	9,344	11,471	4,961	0	35,481	3,548
Burkina Faso	0	0	0	0	0	0	0	0	0	0	0	0
Burundi	0	0	0	0	0	0	0	0	0	0	0	0
Cambodia	0	0	0	0	0	0	0	0	0	0	0	0
Cameroon	0	0	0	0	0	0	0	0	0	0	0	0
Cape Verde	3	0	3	0	0	38	0	25	0	20	89	9
Central African Republic	0	0	0	0	0	0	0	0	0	0	0	0
Chad	0	0	0	0	384	1,222	2,020	2,366	637	0	6,628	663
Chile	3,452	4,009	3,884	8,862	6,209	15,044	26,629	0	15,251	19,590	102,930	10,293
China, Mainland	45,733	0	0	0	0	0	0	0	0	0	45,733	4,573
Colombia	2,555	0	3,794	0	0	2,848	3,136	0	3,333	0	15,667	1,567
Comoros	6	17	14	8	.	.	.	.	.	.	46	12
Congo, Democratic Republic of	170	0	1,744	528	0	928	3,440	1,370	0	0	8,181	818
Congo, Republic of	0	1,033	1,205	1,726	0	1,056	0	0	0	0	5,019	502
Costa Rica	0	0	0	0	0	0	0	0	0	0	0	0
Cote d'Ivoire	0	591	1,696	1,298	0	1,364	923	0	0	0	5,871	587
Croatia	509	2,054	0	0	0	0	0	2,562	2,058	2,721	9,903	990
Djibouti	17	94	89	77	35	125	217	0	38	70	762	76
Dominica	0	0	0	0	0	0	0	0	0	0	0	0



Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	422	1,777	2,409	1,859	0	934	407	0	0	0	7,808	781
Ecuador	847	1,737	785	967	0	2,115	0	0	0	0	6,451	645
Egypt	0	2,501	4,511	4,989	0	9,294	9,304	3,740	2,913	0	37,252	3,725
El Salvador	1,131	639	1,443	0	715	358	0	0	0	720	5,006	501
Equatorial Guinea	398	0	410	0	.	.	.	.	.	.	808	202
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	0	1,141	687	0	0	0	275	0	1,402	3,113	6,617	662
Fiji	0	0	0	0	0	0	0	0	0	0	0	0
Gabon	0	375	1,159	1,370	1,667	1,652	885	2,652	1,409	1,688	12,857	1,286
Gambia, The	36	69	71	32	0	48	13	0	126	114	509	51
Georgia	0	0	62	80	0	0	0	3,219	0	246	3,607	361
Ghana	0	362	0	0	0	0	0	855	0	0	1,218	122
Grenada	0	0	0	0	0	0	0	0	0	0	0	0
Guatemala	0	0	0	3,121	0	0	980	0	0	0	4,100	410
Guinea	0	0	0	0	0	0	0	0	0	0	0	0
Guinea-Bissau	0	55	52	34	0	8	11	0	0	.	160	18
Guyana	0	0	0	0	0	0	0	0	0	0	0	0
Haiti	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	0	0	0	0	0	0
Hungary	3,841	0	9,715	8,296	0	12,000	32,333	18,506	0	0	84,692	8,469
India	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	0	0	8,909	0	0	0	0	19,263	15,979	0	44,151	4,415
Iran, Islamic Republic of	3,320	2,654	6,992	0	.	.	.	.	.	.	12,965	3,241
Iraq	.	.	.	.	.	.	.	0	0	0	0	0
Jamaica	0	0	392	189	0	912	1,516	0	0	1,672	4,680	468
Jordan	663	393	802	605	0	961	0	0	0	0	3,424	342
Kazakhstan	3,541	3,698	5,193	11,821	13,667	22,554	25,772	28,991	7,344	8,229	130,811	13,081
Kenya	0	0	0	0	0	0	0	0	0	0	0	0
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Kuwait	7,517	7,320	16,110	15,595	29,297	44,241	55,232	53,405	0	19,878	248,595	24,860
Kyrgyz Republic	0	66	112	403	0	0	0	306	308	0	1,194	119
Lao PDR	0	624	0	152	93	893	1,674	826	647	312	5,221	522
Latvia	0	1,139	1,259	1,967	0	3,248	11,082	0	1,035	0	19,729	1,973
Lebanon	1,956	866	0	1,062	0	2,222	2,034	0	0	0	8,140	814
Lesotho	0	0	0	0	0	0	0	0	0	0	0	0
Liberia	.	0	0	0	0	0	0	0	0	0	0	0
Libya	1,875	0	0	0	0	4,291	9,157	21,015	4,383	11,326	52,047	5,205
Lithuania	0	0	0	1,926	0	3,964	5,373	0	0	0	11,262	1,126
Macedonia, FYR	151	0	0	790	0	336	838	0	341	0	2,456	246
Madagascar	0	0	0	0	0	0	0	0	0	0	0	0
Malawi	0	0	0	0	0	0	0	0	0	0	0	0

**Table 4. CED Normalized (Change in External Debt - Balance of Payments) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	9,792	0	0	0	17,272	22,426	20,426	39,206	21,506	38,512	169,140	16,914
Maldives	0	0	0	0	0	0	0	0	0	0	0	0
Mali	0	0	0	0	0	0	0	0	0	0	0	0
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	0	0	0	0	0	0	0
Moldova	0	201	0	0	0	118	0	0	0	498	817	82
Mongolia	0	66	566	168	0	290	485	537	0	0	2,111	211
Montenegro	.	.	.	.	.	.	0	0	988	0	988	247
Morocco	0	0	0	0	0	0	0	0	0	0	0	0
Mozambique	0	0	0	0	0	0	0	0	0	0	0	0
Myanmar	0	1,166	973	0	0	901	1,831	1,278	1,140	0	7,290	729
Namibia	365	296	1,269	1,149	524	1,719	916	0	522	1,431	8,190	819
Nepal	0	532	149	116	0	0	220	0	0	0	1,017	102
Nicaragua	0	0	0	0	0	0	0	0	0	0	0	0
Niger	0	0	0	0	0	0	0	0	0	.	0	0
Nigeria	2,846	5,135	9,751	12,333	14,454	12,791	24,690	37,403	27,732	28,573	175,709	17,571
Oman	0	0	0	0	3,822	5,569	0	7,378	0	5,300	22,069	2,207
Pakistan	0	2,026	3,522	1,852	0	0	0	3,384	0	0	10,783	1,078
Panama	876	0	875	557	0	2,773	0	0	2,170	0	7,251	725
Papua New Guinea	0	0	0	0	0	0	0	0	0	0	0	0
Paraguay	0	379	0	376	0	0	0	0	0	0	754	75
Peru	0	894	1,567	0	0	2,910	0	0	5,189	0	10,560	1,056
Philippines	0	0	0	0	0	0	0	0	0	0	0	0
Poland	0	10,609	20,005	20,201	0	31,781	42,867	0	14,180	0	139,643	13,964
Qatar	4,923	4,108	4,537	9,771	15,382	23,255	26,026	44,960	23,623	40,994	197,579	19,758
Romania	0	1,851	3,291	0	0	6,825	10,620	8,057	11,933	0	42,577	4,258
Russian Federation	18,443	12,546	35,579	37,046	66,388	0	48,593	203,251	0	0	421,845	42,185
Rwanda	0	0	0	0	0	0	0	0	0	0	0	0
Samoa	0	0	0	0	0	0	0	0	0	0	0	0
Sao Tome and Principe	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,740	0	27,627	50,755	47,657	52,217	58,963	39,726	81,186	61,987	427,857	42,786
Senegal	0	0	0	0	0	0	0	0	0	.	0	0
Serbia, Republic of	.	.	.	.	.	.	0	0	0	0	0	0
Seychelles	0	0	83	0	109	368	297	0	123	0	981	98
Sierra Leone	0	0	0	0	0	0	0	0	0	0	0	0
Solomon Islands	0	0	0	0	0	0	0	0	0	0	0	0
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	0	0	0	0	0	0	0	0	0	0	0	0
Sri Lanka	0	524	0	0	0	0	958	0	0	0	1,482	148
St. Kitts and Nevis	0	0	0	0	0	0	0	0	0	0	0	0
St. Lucia	0	0	0	0	0	0	0	0	0	0	0	0

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	218	1,140	1,018	0	0	0	1,814	0	3,374	7,565	756
Suriname	0	0	0	0	0	0	0	0	0	0	0	0
Swaziland	0	250	0	0	0	0	304	0	0	172	726	73
Syrian Arab Republic	0	0	0	0	0	2,404	1,213	1,558	1,088	0	6,263	626
Tajikistan	0	104	0	0	0	254	148	1,761	0	0	2,268	227
Tanzania	0	0	0	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	0	0	0	0	0	0
Timor-Leste, Dem. Rep. of	.	.	.	.	.	.	.	.	.	.	.	.
Togo	0	0	0	0	0	0	0	0	0	0	0	0
Tonga	.	.	525	3,327	0	0	33	0	0	8	3,893	487
Trinidad and Tobago	558	883	1,316	2,564	2,721	6,499	5,445	8,205	3,014	4,423	35,629	3,563
Tunisia	917	2,476	2,327	0	0	1,296	1,716	0	0	0	8,732	873
Turkey	5,482	10,715	0	0	0	16,869	21,636	0	0	0	54,701	5,470
Turkmenistan	.	.	.	.	.	.	.	.	.	.	.	.
Uganda	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	8,885	3,975	4,479	11,866	0	20,852	21,247	15,256	15,311	7,657	109,527	10,953
United Arab Emirates	5,700	7,208	16,966	27,131	44,290	50,825	45,068	97,739	24,792	0	319,718	31,972
Uruguay	328	3,810	0	633	0	0	0	0	963	2,062	7,795	780
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	18	20	0	5	0	0	6	0	26	0	75	7
Venezuela, Rep. Bolivariana de	4,300	9,329	8,527	14,862	30,789	18,386	28,866	29,122	14,944	18,885	178,009	17,801
Vietnam	0	0	0	0	0	0	0	0	12,968	11,049	24,017	2,402
Yemen, Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Zambia	0	0	0	538	0	0	750	0	0	2,289	3,578	358
Zimbabwe	0	337	197	0	.	.	.	.	.	.	534	133

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and external debt data reported to the IMF and World Bank respectively by member countries.

**Table 5. CED Non-normalized (Change in External Debt - Balance of Payments)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	.	0	0	13,934	0	761	0	535	0	15,230	1,904
Albania	0	0	38	0	34	0	0	0	0	0	72	7
Algeria	0	1,942	2,699	1,132	667	1,800	2,635	0	0	0	10,875	1,088
Angola	207	2,155	2,455	1,982	4,269	2,699	7,777	3,239	773	0	25,555	2,556
Antigua and Barbuda	63	53	98	0	16	101	0	0	1	0	332	33
Argentina	17,984	12,366	20,898	3,479	0	0	679	16,666	11,678	12,331	96,080	9,608
Armenia, Republic of	225	182	155	306	0	129	459	284	235	517	2,491	249
Aruba	0	42	224	260	74	532	724	0	88	0	1,944	194
Azerbaijan, Republic of	68	462	482	0	589	1,664	3,269	14,215	11,573	16,456	48,779	4,878
Bahamas, The	0	0	0	0	0	0	0	0	0	0	0	0
Bahrain, Kingdom of	145	738	909	1,101	1,883	4,574	2,168	4,534	3,103	3,268	22,425	2,242
Bangladesh	0	2,081	1,257	787	0	2,535	1,402	2,289	874	3,254	14,479	1,448
Barbados	0	0	81	0	0	137	589	0	185	0	993	99
Belarus	0	581	92	0	931	0	991	127	0	2,107	4,829	483
Belize	0	8	48	0	37	58	78	0	5	20	255	26
Benin	0	83	0	29	0	0	0	0	0	0	112	11
Bhutan	.	.	.	.	0	0	174	0	0	0	174	29
Bolivia	0	938	914	663	604	0	0	664	1,123	124	5,030	503
Bosnia and Herzegovina	0	0	0	0	0	0	1,099	0	520	0	1,619	162
Botswana	868	0	876	1,238	559	824	901	790	2,059	1,360	9,476	948
Brazil	0	8,136	9,582	2,975	0	0	0	17,986	0	10,564	49,244	4,924
Brunei Darussalam	2,019	1,945	2,585	2,925	4,234	5,261	4,958	7,116	4,468	6,048	41,559	4,156
Bulgaria	0	953	1,991	1,676	276	5,085	9,344	11,471	4,961	0	35,758	3,576
Burkina Faso	0	0	0	0	0	0	0	0	0	0	0	0
Burundi	0	87	81	28	0	0	0	0	0	0	196	20
Cambodia	59	146	86	123	66	90	184	0	0	32	787	79
Cameroon	0	322	873	0	0	0	0	0	0	0	1,195	119
Cape Verde	3	0	3	0	0	38	0	25	0	20	89	9
Central African Republic	0	285	10	41	0	0	0	0	0	0	337	34
Chad	0	0	0	0	384	1,222	2,020	2,366	637	0	6,628	663
Chile	3,452	4,009	3,884	8,862	6,209	15,044	26,629	6,586	15,251	19,590	109,515	10,952
China, Mainland	45,733	8,108	8,094	0	9,521	87,023	81,895	62,539	0	68,175	371,087	37,109
Colombia	2,555	0	3,794	413	1,814	2,848	3,136	1,843	3,333	0	19,737	1,974
Comoros	6	17	14	8	.	.	.	.	.	.	46	12
Congo, Democratic Republic of	170	0	1,744	528	0	928	3,440	1,370	0	0	8,181	818
Congo, Republic of	0	1,033	1,205	1,726	126	1,056	0	336	478	0	5,959	596
Costa Rica	28	0	0	0	302	0	250	423	0	469	1,472	147
Cote d'Ivoire	0	591	1,696	1,298	0	1,364	923	0	647	0	6,518	652
Croatia	509	2,054	595	0	291	1,011	82	2,562	2,058	2,721	11,883	1,188
Djibouti	17	94	89	77	35	125	217	0	38	70	762	76
Dominica	11	0	34	0	0	0	0	0	0	0	45	5

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	422	1,777	2,409	1,859	0	934	407	0	123	0	7,930	793
Ecuador	847	1,737	785	967	124	2,115	1,135	1,284	0	400	9,394	939
Egypt	0	2,501	4,511	4,989	217	9,294	9,304	3,740	2,913	966	38,435	3,844
El Salvador	1,131	639	1,443	262	715	358	0	0	0	720	5,268	527
Equatorial Guinea	398	118	410	0	.	.	.	.	.	.	926	231
Eritrea	.	.	.	.	.	.	.	.	.	.	0	.
Ethiopia	0	1,141	687	0	0	0	275	0	1,402	3,113	6,617	662
Fiji	0	91	0	0	0	161	0	0	0	0	251	25
Gabon	115	375	1,159	1,370	1,667	1,652	885	2,652	1,409	1,688	12,972	1,297
Gambia, The	36	69	71	32	0	48	13	0	126	114	509	51
Georgia	0	16	62	80	0	0	0	3,219	0	246	3,623	362
Ghana	0	362	37	0	0	0	126	855	284	682	2,347	235
Grenada	0	24	0	8	0	0	0	0	0	0	33	3
Guatemala	0	0	0	3,121	255	102	980	0	0	130	4,588	459
Guinea	0	73	103	0	0	67	56	0	0	0	299	30
Guinea-Bissau	0	55	52	34	0	8	11	0	0	.	160	18
Guyana	0	30	37	0	0	0	0	10	0	380	458	46
Haiti	0	0	84	0	27	144	0	0	0	0	256	26
Honduras	0	215	130	0	0	0	0	0	529	0	875	87
Hungary	3,841	2,696	9,715	8,296	6,102	12,000	32,333	18,506	2,496	0	95,987	9,599
India	0	0	0	0	0	5,597	0	11,633	5,698	0	22,928	2,293
Indonesia	0	0	8,909	4,429	3,442	0	8,535	19,263	15,979	2,179	62,736	6,274
Iran, Islamic Republic of	3,320	2,654	6,992	0	.	.	.	.	.	.	12,965	3,241
Iraq	.	.	.	.	0	0	53,545	2,718	0	0	56,263	9,377
Jamaica	0	0	392	189	0	912	1,516	0	52	1,672	4,732	473
Jordan	663	393	802	605	0	961	0	0	0	0	3,424	342
Kazakhstan	3,541	3,698	5,193	11,821	13,667	22,554	25,772	28,991	7,344	8,229	130,811	13,081
Kenya	0	508	540	0	0	0	0	0	0	0	1,048	105
Kiribati	.	.	.	.	.	.	.	.	.	.	0	.
Kosovo, Republic of	.	.	.	.	.	.	.	.	.	0	0	0
Kuwait	7,517	7,320	16,110	15,595	29,297	44,241	55,232	53,405	0	19,878	248,595	24,860
Kyrgyz Republic	0	66	112	403	0	61	0	306	308	0	1,255	126
Lao PDR	0	624	0	152	93	893	1,674	826	647	312	5,221	522
Latvia	0	1,139	1,259	1,967	0	3,248	11,082	0	1,035	0	19,729	1,973
Lebanon	1,956	866	0	1,062	0	2,222	2,034	0	0	0	8,140	814
Lesotho	0	264	205	212	0	0	0	0	194	0	876	88
Liberia	0	157	187	137	0	113	0	0	0	0	593	59
Libya	1,875	0	0	0	1,968	4,291	9,157	21,015	4,383	11,326	54,015	5,401
Lithuania	110	433	0	1,926	0	3,964	5,373	0	1,643	0	13,448	1,345
Macedonia, FYR	151	64	74	790	0	336	838	0	341	142	2,736	274
Madagascar	0	0	93	0	0	0	0	0	0	0	93	9
Malawi	0	2	66	50	0	0	0	0	0	0	119	12

**Table 5. CED Non-normalized (Change in External Debt - Balance of Payments) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	9,792	8,003	4,576	0	17,272	22,426	20,426	39,206	21,506	38,512	181,719	18,172
Maldives	42	0	0	0	0	0	0	0	0	0	42	4
Mali	0	0	0	63	0	0	0	0	0	0	63	6
Mauritania	0	20	133	0	.	.	.	.	.	.	153	38
Mauritius	199	0	10	0	0	0	0	0	0	12,886	13,095	1,309
Mexico	13,424	0	4,618	11,723	8,457	6,180	20,967	11,318	0	10,131	86,819	8,682
Moldova	15	201	66	0	0	118	60	0	0	498	958	96
Mongolia	0	66	566	168	29	290	485	537	0	153	2,294	229
Montenegro	.	.	.	.	.	.	0	0	988	0	988	247
Morocco	0	478	2,451	0	0	2,373	2,772	0	0	0	8,074	807
Mozambique	0	0	0	83	0	0	0	0	0	0	83	8
Myanmar	0	1,166	973	202	206	901	1,831	1,278	1,140	19	7,716	772
Namibia	365	296	1,269	1,149	524	1,719	916	0	522	1,431	8,190	819
Nepal	0	532	149	116	0	27	220	0	67	0	1,111	111
Nicaragua	0	0	0	0	0	0	0	0	0	0	0	0
Niger	0	60	105	0	0	0	0	0	0	.	165	18
Nigeria	2,846	5,135	9,751	12,333	14,454	12,791	24,690	37,403	27,732	28,573	175,709	17,571
Oman	530	428	22	0	3,822	5,569	722	7,378	0	5,300	23,771	2,377
Pakistan	0	2,026	3,522	1,852	0	0	0	3,384	0	482	11,265	1,127
Panama	876	14	875	557	0	2,773	0	0	2,170	0	7,265	726
Papua New Guinea	0	0	58	0	572	0	0	886	0	3,253	4,769	477
Paraguay	0	379	76	376	0	101	0	149	0	321	1,401	140
Peru	0	894	1,567	751	45	2,910	0	0	5,189	0	11,356	1,136
Philippines	0	3,101	3,512	1,749	2,714	3,979	3,570	1,500	2,464	4,518	27,108	2,711
Poland	2,786	10,609	20,005	20,201	0	31,781	42,867	0	14,180	812	143,241	14,324
Qatar	4,923	4,108	4,537	9,771	15,382	23,255	26,026	44,960	23,623	40,994	197,579	19,758
Romania	0	1,851	3,291	920	519	6,825	10,620	8,057	11,933	0	44,016	4,402
Russian Federation	18,443	12,546	35,579	37,046	66,388	4,603	48,593	203,251	8,756	36,415	471,619	47,162
Rwanda	0	4	21	0	0	0	0	0	0	0	25	2
Samoa	0	27	33	0	0	0	0	5	0	0	65	7
Sao Tome and Principe	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,740	2,680	27,627	50,755	47,657	52,217	58,963	39,726	81,186	61,987	430,537	43,054
Senegal	0	54	0	0	0	0	0	0	0	.	54	6
Serbia, Republic of	.	.	.	.	.	.	899	0	0	0	899	225
Seychelles	0	0	83	12	109	368	297	0	123	0	993	99
Sierra Leone	0	55	115	24	51	0	0	0	0	0	246	25
Solomon Islands	0	0	0	27	0	0	0	0	0	0	27	3
Somalia	.	.	.	.	.	.	.	.	.	.	0	.
South Africa	10,339	4,138	1,148	0	0	0	0	0	0	0	15,624	1,562
Sri Lanka	0	524	218	355	0	0	958	0	0	513	2,568	257
St. Kitts and Nevis	31	0	9	0	12	4	0	0	0	0	56	6
St. Lucia	0	0	0	0	25	0	14	190	0	0	229	23

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	0	218	1,140	1,018	0	0	495	1,814	0	3,374	8,060	806
Suriname	0	0	0	0	0	0	0	89	0	429	518	52
Swaziland	0	250	154	164	0	48	304	0	0	172	1,092	109
Syrian Arab Republic	0	0	0	448	0	2,404	1,213	1,558	1,088	0	6,711	671
Tajikistan	0	104	0	58	0	254	148	1,761	0	0	2,327	233
Tanzania	0	607	0	956	0	0	0	0	0	71	1,635	163
Thailand	0	0	887	1,254	0	0	6,320	0	6,488	0	14,949	1,495
Timor-Leste, Dem. Rep. of	.	.	.	.	.	619	1,039	2,081	1,335	1,588	6,663	1,333
Togo	0	68	29	0	0	0	0	0	0	0	97	10
Tonga	.	.	525	3,327	0	0	33	0	0	8	3,893	487
Trinidad and Tobago	558	883	1,316	2,564	2,721	6,499	5,445	8,205	3,014	4,423	35,629	3,563
Tunisia	917	2,476	2,327	334	0	1,296	1,716	0	0	0	9,066	907
Turkey	5,482	10,715	4,242	2,339	0	16,869	21,636	7,618	0	0	68,901	6,890
Turkmenistan	.	.	.	.	.	.	.	.	.	.	0	.
Uganda	0	305	575	260	0	0	0	57	0	0	1,197	120
Ukraine	8,885	3,975	4,479	11,866	2,779	20,852	21,247	15,256	15,311	7,657	112,306	11,231
United Arab Emirates	5,700	7,208	16,966	27,131	44,290	50,825	45,068	97,739	24,792	8,691	328,409	32,841
Uruguay	328	3,810	0	633	0	0	241	0	963	2,062	8,036	804
Uzbekistan	.	.	606	792	728	1,356	2,988	3,134	4,787	3,825	18,216	2,277
Vanuatu	18	20	1	5	0	0	6	0	26	0	75	8
Venezuela, Rep. Bolivariana de	4,300	9,329	8,527	14,862	30,789	18,386	28,866	29,122	14,944	18,885	178,009	17,801
Vietnam	1,471	1,085	25	1,876	305	0	0	264	12,968	11,049	29,044	2,904
Yemen, Republic of	98	233	0	0	0	127	0	0	0	0	458	46
Zambia	0	0	52	538	0	0	750	96	244	2,289	3,971	397
Zimbabwe	0	337	197	0	.	.	.	.	.	.	534	133

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and external debt data reported to the IMF and World Bank respectively by member countries.

**Table 6. GER Normalized (Gross Excluding Reversals - Trade Misinvoicing)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	1,289	513	203	0	0	0	0	41	110	2,157	240
Albania	0	0	0	0	91	103	315	405	233	164	1,312	131
Algeria	0	0	0	0	0	0	0	0	0	0	0	0
Angola	.	.	.	.	.	.	.	.	.	.	.	.
Antigua and Barbuda	.	.	.	.	.	.	.	.	.	.	.	.
Argentina	0	0	0	0	0	0	0	0	0	0	0	0
Armenia, Republic of	273	170	248	97	316	204	445	1,210	1,071	1,192	5,226	523
Aruba	1,259	805	1,224	2,188	3,537	3,708	3,933	4,907	1,829	123	23,513	2,351
Azerbaijan, Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Bahamas, The	484	772	1,001	1,063	1,694	1,331	1,622	2,086	1,616	1,925	13,595	1,360
Bahrain, Kingdom of	0	609	0	1,468	2,215	2,256	1,629	0	0	0	8,178	818
Bangladesh	758	0	967	920	0	2,154	1,833	0	0	2,311	8,943	894
Barbados	0	300	329	572	532	64	54	0	0	0	1,852	185
Belarus	.	.	.	.	.	.	.	.	.	.	.	.
Belize	109	66	86	88	94	80	134	122	101	75	954	95
Benin	0	0	0	0	0	0	0	0	0	0	0	0
Bhutan	.	.	.	.	.	.	.	.	.	.	.	.
Bolivia	0	0	0	0	0	0	0	0	0	0	0	0
Bosnia and Herzegovina	459	591	748	903	1,232	371	919	1,162	939	900	8,222	822
Botswana	0	0	0	0	0	611	1,157	1,146	1,082	0	3,996	400
Brazil	0	0	0	0	0	0	0	0	0	0	0	0
Brunei Darussalam	0	0	0	0	.	0	0	0	0	0	0	0
Bulgaria	539	0	0	0	0	0	0	0	0	0	539	54
Burkina Faso	166	132	111	295	196	174	321	408	214	380	2,397	240
Burundi	0	6	0	0	30	119	28	32	47	37	300	30
Cambodia	254	280	327	403	412	511	0	742	729	1,027	4,685	469
Cameroon	325	0	279	896	473	980	1,221	1,480	0	0	5,653	565
Cape Verde	.	.	.	.	.	.	.	.	.	.	.	.
Central African Republic	33	78	14	0	14	0	0	0	35	0	174	17
Chad	.	.	.	.	.	.	.	.	.	.	.	.
Chile	0	0	0	0	0	0	0	0	0	0	0	0
China, Mainland	137,470	153,797	183,530	251,058	283,483	296,078	326,661	348,421	294,726	367,426	2,642,648	264,265
Colombia	1,350	0	1,316	1,808	0	0	0	0	0	0	4,474	447
Comoros	21	9	6	16	16	26	20	21	11	11	158	16
Congo, Democratic Republic of	346	345	412	598	922	547	0	0	0	0	3,170	317
Congo, Republic of	1,142	0	918	2,961	672	2,149	1,529	2,636	620	1,761	14,388	1,439
Costa Rica	1,913	2,375	3,423	4,690	5,757	5,831	6,258	6,992	8,854	17,310	63,403	6,340
Cote d'Ivoire	0	0	612	916	1,508	934	0	0	0	0	3,971	397
Croatia	484	0	0	0	0	0	0	0	0	0	484	48
Djibouti	205	172	212	214	233	304	279	345	301	364	2,629	263
Dominica	17	12	18	26	41	46	75	150	127	121	632	63



Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	1,097	536	345	0	0	746	371	1,125	3,834	4,064	12,118	1,212
Ecuador	972	0	0	860	1,317	0	0	4,738	0	0	7,887	789
Egypt	1,124	1,492	1,217	3,073	2,533	4,200	4,515	3,103	0	0	21,256	2,126
El Salvador	0	515	552	730	587	371	956	827	944	908	6,390	639
Equatorial Guinea	450	0	0	0	0	0	0	1,968	2,876	2,904	8,198	820
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	672	321	97	0	787	1,148	1,288	1,755	2,543	2,567	11,177	1,118
Fiji	147	70	206	249	158	254	239	390	203	280	2,197	220
Gabon	0	0	0	0	0	0	0	0	0	0	0	0
Gambia, The	17	19	11	28	20	24	31	33	41	47	271	27
Georgia	244	248	380	450	403	612	411	854	517	488	4,607	461
Ghana	0	0	0	0	0	0	0	0	0	0	0	0
Grenada	.	.	.	.	.	.	.	.	.	.	.	.
Guatemala	1,998	1,339	1,301	1,350	1,489	808	950	878	3,366	2,257	15,736	1,574
Guinea	304	116	161	451	295	291	644	261	0	378	2,901	290
Guinea-Bissau	15	42	0	34	19	13	194	0	32	69	419	42
Guyana	81	59	60	84	140	90	209	202	182	230	1,336	134
Haiti	0	0	0	40	0	88	95	121	0	62	405	41
Honduras	2,524	2,679	2,722	2,920	2,985	3,031	3,048	3,297	2,857	3,465	29,527	2,953
Hungary	0	0	0	0	0	0	0	0	0	0	0	0
India	7,172	8,102	9,447	22,609	30,404	0	0	26,820	0	0	104,554	10,455
Indonesia	0	0	11,610	14,542	11,204	12,724	14,122	16,302	0	0	80,504	8,050
Iran, Islamic Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Iraq	.	.	.	.	.	.	.	10,404	11,944	14,263	36,611	12,204
Jamaica	235	303	428	413	823	225	212	582	457	0	3,679	368
Jordan	0	0	0	0	0	0	0	0	0	0	0	0
Kazakhstan	0	0	0	0	0	0	0	0	0	0	0	0
Kenya	0	0	0	0	0	0	0	0	0	0	0	0
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0
Kyrgyz Republic	.	.	.	.	.	.	.	.	.	.	.	.
Lao PDR	0	0	0	0	0	114	115	182	182	0	594	59
Latvia	836	649	761	1,197	791	665	0	0	0	0	4,899	490
Lebanon	1,034	309	0	280	0	0	1,070	1,255	1,068	960	5,976	598
Lesotho	0	0	0	0	74	176	314	330	358	0	1,253	125
Liberia	.	897	815	851	948	1,480	1,828	608	1,040	631	9,098	1,011
Libya	0	0	0	0	0	0	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	0	0	0
Macedonia, FYR	0	168	247	381	477	287	713	994	582	630	4,480	448
Madagascar	0	128	0	797	460	1,643	0	682	185	0	3,896	390
Malawi	135	112	183	159	470	418	453	860	696	684	4,171	417

**Table 6. GER Normalized (Gross Excluding Reversals - Trade Misinvoicing) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	10,674	12,153	17,727	19,579	21,447	22,156	27,277	28,756	25,172	42,719	227,659	22,766
Maldives	109	148	103	68	38	44	0	0	0	0	510	51
Mali	0	0	274	102	145	187	186	967	393	373	2,626	263
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	0	0	0	0	0	0	0	0	301	423	724	72
Mexico	32,999	34,811	34,022	36,392	44,231	48,380	59,508	61,132	34,578	33,429	419,482	41,948
Moldova	209	108	226	337	241	192	446	507	228	0	2,494	249
Mongolia	0	0	0	0	0	0	0	0	0	0	0	0
Montenegro	.	.	.	.	925	860	1,198	1,473	902	896	6,254	1,042
Morocco	0	0	0	0	3,382	0	0	0	1,931	0	5,312	531
Mozambique	0	189	0	0	0	330	0	0	0	0	520	52
Myanmar	0	0	0	0	0	0	0	0	0	0	0	0
Namibia	0	0	0	0	0	444	807	841	1,104	0	3,195	320
Nepal	603	479	356	421	501	683	584	776	1,551	1,703	7,658	766
Nicaragua	436	443	525	650	954	1,120	1,174	1,213	1,130	1,256	8,902	890
Niger	50	0	0	87	100	0	0	0	276	554	1,067	107
Nigeria	0	0	0	0	0	0	0	0	0	0	0	0
Oman	0	0	0	0	0	2,450	0	0	0	0	2,450	245
Pakistan	0	0	0	0	0	0	0	0	0	0	0	0
Panama	1,732	2,223	2,406	2,705	3,571	4,617	5,072	5,786	5,082	5,343	38,536	3,854
Papua New Guinea	0	0	0	0	0	0	0	0	480	899	1,379	138
Paraguay	156	305	158	0	0	1,123	627	1,579	1,447	1,412	6,808	681
Peru	1,147	0	0	0	0	0	0	0	0	0	1,147	115
Philippines	6,540	7,091	10,286	11,968	15,685	16,206	20,380	16,992	8,292	14,631	128,072	12,807
Poland	0	0	0	0	0	0	0	0	0	0	0	0
Qatar	0	0	0	0	0	0	0	0	18,981	0	18,981	1,898
Romania	0	0	0	0	0	0	0	0	0	0	0	0
Russian Federation	19,140	0	0	0	0	0	0	0	0	0	19,140	1,914
Rwanda	50	53	37	221	35	90	126	88	371	490	1,560	156
Samoa	51	59	84	79	322	116	142	137	103	115	1,209	121
Sao Tome and Principe	.	.	.	.	.	.	.	.	.	.	.	.
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0
Senegal	0	0	0	0	0	0	0	0	0	0	0	0
Serbia, Republic of	4,080	5,469	7,409	9,776	6,434	5,407	4,194	0	5,637	2,750	51,156	5,116
Seychelles	82	210	149	82	75	0	0	0	0	0	598	60
Sierra Leone	24	53	45	40	32	0	53	0	0	0	247	25
Solomon Islands	28	25	35	70	88	94	136	171	91	153	891	89
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	0	0	0	0	0	10,927	19,838	21,006	18,117	0	69,887	6,989
Sri Lanka	0	0	0	0	0	0	0	0	0	0	0	0
St. Kitts and Nevis	.	.	.	.	.	.	.	.	.	.	.	.
St. Lucia	.	.	.	.	.	.	.	.	.	.	.	.

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	.	.	.	.	.	.	.	.	.	.	.	.
Sudan	376	272	0	0	0	0	1,124	9,158	5,663	7,721	24,314	2,431
Suriname	56	106	74	120	115	0	0	185	0	0	657	66
Swaziland	0	0	0	0	0	300	467	389	410	0	1,565	157
Syrian Arab Republic	13,085	0	0	12,761	1,078	0	0	0	0	0	26,924	2,692
Tajikistan	.	.	.	.	.	.	.	.	.	.	.	.
Tanzania	0	0	0	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	0	0	0	0	0	0
Timor-Leste, Dem. Rep. of	.	.	.	.	.	.	.	.	.	.	.	.
Togo	154	61	292	151	168	131	227	438	200	120	1,940	194
Tonga	17	15	13	13	9	13	9	19	6	5	120	12
Trinidad and Tobago	0	1,003	1,576	1,848	1,749	0	2,246	0	2,917	4,326	15,665	1,566
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0	0	0	0	0	0
Turkmenistan	.	.	.	.	.	.	.	.	.	.	.	.
Uganda	0	0	140	238	362	456	676	1,130	1,309	1,261	5,572	557
Ukraine	0	0	0	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0
Uruguay	0	294	353	346	0	0	522	0	0	1,008	2,523	252
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	.	.	.	.	.	.	.	.	.	.	.	.
Venezuela, Rep. Bolivariana de	0	0	0	0	0	0	0	0	0	0	0	0
Vietnam	0	0	0	0	0	0	0	0	0	0	0	0
Yemen, Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Zambia	0	0	387	583	1,279	465	1,249	0	0	0	3,962	396
Zimbabwe	342	655	0	297	360	1,787	0	0	0	0	3,442	344

Source: Staff estimates, Global Financial Integrity, based on trade data reported to the IMF by member countries.

**Table 7. GER Non-normalized (Gross Excluding Reversals - Trade Misinvoicing)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	1,289	513	203	0	0	0	0	41	110	2,157	240
Albania	14	0	14	15	91	103	315	405	233	164	1,356	136
Algeria	1,626	490	497	746	0	298	0	0	1,094	0	4,752	475
Angola	.	.	.	.	.	.	.	.	.	.	.	.
Antigua and Barbuda	.	.	.	.	.	.	.	.	.	.	.	.
Argentina	888	598	0	1,166	760	0	1,380	4,748	0	0	9,539	954
Armenia, Republic of	273	170	248	97	316	204	445	1,210	1,071	1,192	5,226	523
Aruba	1,259	805	1,224	2,188	3,537	3,708	3,933	4,907	1,829	123	23,513	2,351
Azerbaijan, Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Bahamas, The	484	772	1,001	1,063	1,694	1,331	1,622	2,086	1,616	1,925	13,595	1,360
Bahrain, Kingdom of	146	609	588	1,468	2,215	2,256	1,629	0	0	0	8,912	891
Bangladesh	758	391	967	920	533	2,154	1,833	729	0	2,311	10,597	1,060
Barbados	24	300	329	572	532	64	54	0	0	30	1,905	191
Belarus	.	.	.	.	.	.	.	.	.	.	.	.
Belize	109	66	86	88	94	80	134	122	101	75	954	95
Benin	0	0	62	114	35	0	0	0	0	0	212	21
Bhutan	.	.	.	.	.	.	.	.	.	.	.	.
Bolivia	164	215	0	0	0	0	0	0	0	0	379	38
Bosnia and Herzegovina	459	591	748	903	1,232	371	919	1,162	939	900	8,222	822
Botswana	71	79	0	206	277	611	1,157	1,146	1,082	213	4,841	484
Brazil	0	0	1,190	1,464	1,702	0	5,435	7,792	5,795	994	24,373	2,437
Brunei Darussalam	0	0	0	0	.	0	0	0	0	212	212	24
Bulgaria	539	441	657	425	502	0	1,166	510	526	0	4,765	477
Burkina Faso	166	132	111	295	196	174	321	408	214	380	2,397	240
Burundi	0	6	3	0	30	119	28	32	47	37	303	30
Cambodia	254	280	327	403	412	511	0	742	729	1,027	4,685	469
Cameroon	325	113	279	896	473	980	1,221	1,480	227	362	6,355	636
Cape Verde	.	.	.	.	.	.	.	.	.	.	.	.
Central African Republic	33	78	14	7	14	0	2	0	35	0	183	18
Chad	.	.	.	.	.	.	.	.	.	.	.	.
Chile	1,085	1,051	949	1,289	1,522	1,337	2,178	5,750	939	1,410	17,509	1,751
China, Mainland	137,470	153,797	183,530	251,058	283,483	296,078	326,661	348,421	294,726	367,426	2,642,648	264,265
Colombia	1,350	1,079	1,316	1,808	1,379	540	628	2,760	1,355	51	12,266	1,227
Comoros	21	9	6	16	16	26	20	21	11	11	158	16
Congo, Democratic Republic of	346	345	412	598	922	547	207	0	277	260	3,914	391
Congo, Republic of	1,142	0	918	2,961	672	2,149	1,529	2,636	620	1,761	14,388	1,439
Costa Rica	1,913	2,375	3,423	4,690	5,757	5,831	6,258	6,992	8,854	17,310	63,403	6,340
Cote d'Ivoire	45	0	612	916	1,508	934	761	427	506	76	5,786	579
Croatia	484	359	595	308	150	0	0	0	0	0	1,896	190
Djibouti	205	172	212	214	233	304	279	345	301	364	2,629	263
Dominica	17	12	18	26	41	46	75	150	127	121	632	63

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	1,097	536	345	0	0	746	371	1,125	3,834	4,064	12,118	1,212
Ecuador	972	295	23	860	1,317	608	692	4,738	267	611	10,383	1,038
Egypt	1,124	1,492	1,217	3,073	2,533	4,200	4,515	3,103	0	1,066	22,322	2,232
El Salvador	135	515	552	730	587	371	956	827	944	908	6,525	653
Equatorial Guinea	450	59	0	322	175	360	917	1,968	2,876	2,904	10,030	1,003
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	672	321	97	52	787	1,148	1,288	1,755	2,543	2,567	11,230	1,123
Fiji	147	70	206	249	158	254	239	390	203	280	2,197	220
Gabon	720	387	243	259	0	0	0	0	0	0	1,609	161
Gambia, The	17	19	11	28	20	24	31	33	41	47	271	27
Georgia	244	248	380	450	403	612	411	854	517	488	4,607	461
Ghana	461	0	0	0	0	0	0	0	0	0	461	46
Grenada	.	.	.	.	.	.	.	.	.	.	.	.
Guatemala	1,998	1,339	1,301	1,350	1,489	808	950	878	3,366	2,257	15,736	1,574
Guinea	304	116	161	451	295	291	644	261	0	378	2,901	290
Guinea-Bissau	15	42	6	34	19	13	194	4	32	69	428	43
Guyana	81	59	60	84	140	90	209	202	182	230	1,336	134
Haiti	2	11	31	40	41	88	95	121	34	62	524	52
Honduras	2,524	2,679	2,722	2,920	2,985	3,031	3,048	3,297	2,857	3,465	29,527	2,953
Hungary	0	0	0	0	0	0	0	0	318	0	318	32
India	7,172	8,102	9,447	22,609	30,404	10,512	4,923	26,820	0	0	119,989	11,999
Indonesia	320	1,110	11,610	14,542	11,204	12,724	14,122	16,302	8,586	3,733	94,253	9,425
Iran, Islamic Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Iraq	.	.	.	.	.	.	.	10,404	11,944	14,263	36,611	12,204
Jamaica	235	303	428	413	823	225	212	582	457	26	3,705	371
Jordan	0	0	0	162	0	0	0	97	132	0	391	39
Kazakhstan	411	1,000	135	0	0	0	0	0	0	589	2,136	214
Kenya	72	0	36	136	0	43	0	0	0	0	287	29
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Kuwait	251	447	0	18	744	884	351	0	1,403	0	4,098	410
Kyrgyz Republic	.	.	.	.	.	.	.	.	.	.	.	.
Lao PDR	0	0	0	8	0	114	115	182	182	86	688	69
Latvia	836	649	761	1,197	791	665	572	161	0	0	5,632	563
Lebanon	1,034	309	0	280	130	0	1,070	1,255	1,068	960	6,106	611
Lesotho	18	19	0	66	74	176	314	330	358	62	1,417	142
Liberia	.	897	815	851	948	1,480	1,828	608	1,040	631	9,098	1,011
Libya	2,414	59	0	0	0	0	0	0	0	0	2,473	247
Lithuania	0	0	0	0	0	0	0	2,540	1,239	2,752	6,532	653
Macedonia, FYR	0	168	247	381	477	287	713	994	582	630	4,480	448
Madagascar	24	128	66	797	460	1,643	121	682	185	32	4,139	414
Malawi	135	112	183	159	470	418	453	860	696	684	4,171	417

**Table 7. GER Non-normalized (Gross Excluding Reversals - Trade Misinvoicing) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	10,674	12,153	17,727	19,579	21,447	22,156	27,277	28,756	25,172	42,719	227,659	22,766
Maldives	109	148	103	68	38	44	4	0	0	0	514	51
Mali	52	45	274	102	145	187	186	967	393	373	2,723	272
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	16	2	107	40	0	0	0	166	301	423	1,057	106
Mexico	32,999	34,811	34,022	36,392	44,231	48,380	59,508	61,132	34,578	33,429	419,482	41,948
Moldova	209	108	226	337	241	192	446	507	228	0	2,494	249
Mongolia	0	0	0	0	0	0	0	0	0	0	0	0
Montenegro	.	.	.	.	925	860	1,198	1,473	902	896	6,254	1,042
Morocco	343	153	300	700	3,382	271	688	1,465	1,931	821	10,054	1,005
Mozambique	9	189	75	0	0	330	126	0	0	0	730	73
Myanmar	366	0	62	533	0	0	0	0	0	0	961	96
Namibia	47	41	0	129	168	444	807	841	1,104	194	3,774	377
Nepal	603	479	356	421	501	683	584	776	1,551	1,703	7,658	766
Nicaragua	436	443	525	650	954	1,120	1,174	1,213	1,130	1,256	8,902	890
Niger	50	0	0	87	100	0	46	0	276	554	1,113	111
Nigeria	906	0	0	1,702	485	1,984	4,905	3,444	0	4,305	17,730	1,773
Oman	28	144	332	70	0	2,450	129	0	0	0	3,152	315
Pakistan	0	0	0	0	0	0	505	677	298	0	1,480	148
Panama	1,732	2,223	2,406	2,705	3,571	4,617	5,072	5,786	5,082	5,343	38,536	3,854
Papua New Guinea	0	52	124	93	0	0	33	111	480	899	1,791	179
Paraguay	156	305	158	0	0	1,123	627	1,579	1,447	1,412	6,808	681
Peru	1,147	718	728	614	972	651	534	1,309	1,577	0	8,250	825
Philippines	6,540	7,091	10,286	11,968	15,685	16,206	20,380	16,992	8,292	14,631	128,072	12,807
Poland	0	322	106	632	0	0	0	0	0	0	1,060	106
Qatar	335	0	0	0	0	175	168	4,807	18,981	978	25,443	2,544
Romania	30	0	0	0	0	0	2,434	0	0	0	2,465	246
Russian Federation	19,140	0	2,497	14,487	0	0	0	0	6,876	35,353	78,352	7,835
Rwanda	50	53	37	221	35	90	126	88	371	490	1,560	156
Samoa	51	59	84	79	322	116	142	137	103	115	1,209	121
Sao Tome and Principe	.	.	.	.	.	.	.	.	.	.	.	.
Saudi Arabia	0	0	0	0	1,694	461	716	2,939	4,131	3,921	13,862	1,386
Senegal	9	0	0	0	6	0	0	0	0	0	15	1
Serbia, Republic of	4,080	5,469	7,409	9,776	6,434	5,407	4,194	0	5,637	2,750	51,156	5,116
Seychelles	82	210	149	82	75	4	0	0	0	0	602	60
Sierra Leone	24	53	45	40	32	0	53	18	0	0	266	27
Solomon Islands	28	25	35	70	88	94	136	171	91	153	891	89
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	984	961	0	3,052	4,113	10,927	19,838	21,006	18,117	3,615	82,613	8,261
Sri Lanka	0	0	0	0	0	0	0	0	0	0	0	0
St. Kitts and Nevis	.	.	.	.	.	.	.	.	.	.	.	.
St. Lucia	.	.	.	.	.	.	.	.	.	.	.	.

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	.	.	.	.	.	.	.	.	.	.	.	.
Sudan	376	272	0	0	139	70	1,124	9,158	5,663	7,721	24,523	2,452
Suriname	56	106	74	120	115	31	9	185	53	0	750	75
Swaziland	38	32	0	119	133	300	467	389	410	67	1,954	195
Syrian Arab Republic	13,085	93	91	12,761	1,078	468	108	0	0	158	27,842	2,784
Tajikistan	.	.	.	.	.	.	.	.	.	.	.	.
Tanzania	0	0	0	0	0	0	0	0	40	0	40	4
Thailand	1,898	1,490	2,070	3,461	8,352	6,095	4,198	14,880	8,406	8,534	59,384	5,938
Timor-Leste, Dem. Rep. of	.	.	.	.	.	.	.	.	.	.	.	.
Togo	154	61	292	151	168	131	227	438	200	120	1,940	194
Tonga	17	15	13	13	9	13	9	19	6	5	120	12
Trinidad and Tobago	75	1,003	1,576	1,848	1,749	620	2,246	888	2,917	4,326	17,248	1,725
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0
Turkey	784	1,822	2,088	18	1,736	906	3,432	3,519	8,244	3,558	26,106	2,611
Turkmenistan	694	685	600	.	.	.	.	.	.	.	1,978	659
Uganda	26	6	140	238	362	456	676	1,130	1,309	1,261	5,604	560
Ukraine	0	0	0	0	0	0	0	290	727	1,253	2,271	227
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0
Uruguay	191	294	353	346	286	139	522	132	528	1,008	3,799	380
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	.	.	.	.	.	.	.	.	.	.	.	.
Venezuela, Rep. Bolivariana de	2,332	496	0	2,039	181	0	0	0	0	0	5,048	505
Vietnam	0	0	0	0	0	0	0	0	0	0	0	0
Yemen, Republic of	0	0	0	0	0	4	468	1,910	0	0	2,382	238
Zambia	95	0	387	583	1,279	465	1,249	260	206	342	4,864	486
Zimbabwe	342	655	0	297	360	1,787	96	14	103	0	3,655	365

Source: Staff estimates, Global Financial Integrity, based on trade data reported to the IMF by member countries.

**Table 8. Illicit Financial Flows (HMN+GER Normalized)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	1,289	513	203	0	0	0	0	41	110	2,157	240
Albania	0	0	0	0	91	103	315	405	233	164	1,312	131
Algeria	0	0	0	0	203	1,962	500	3,358	2,673	1,265	9,961	996
Angola	309	68	822	0	574	0	1,641	1,236	0	181	4,830	483
Antigua and Barbuda	16	40	5	19	11	11	7	4	7	0	120	12
Argentina	2,810	1,890	1,428	0	0	0	0	0	0	1,036	7,164	716
Armenia, Republic of	273	175	250	103	316	220	447	1,210	1,071	1,192	5,255	526
Aruba	1,264	805	1,224	2,188	3,537	3,708	3,933	4,919	1,842	123	23,544	2,354
Azerbaijan, Republic of	1	87	112	50	126	256	361	845	1,461	990	4,288	429
Bahamas, The	484	772	1,001	1,063	1,843	1,331	1,622	2,086	1,669	2,208	14,080	1,408
Bahrain, Kingdom of	0	609	700	1,468	2,215	2,256	1,629	30	66	0	8,974	897
Bangladesh	864	349	967	945	629	2,778	2,737	120	649	2,367	12,406	1,241
Barbados	0	300	329	572	532	64	54	7	0	65	1,923	192
Belarus	1	289	13	0	0	286	0	194	0	0	784	78
Belize	109	75	121	92	102	88	172	134	106	75	1,074	107
Benin	0	0	0	10	0	0	0	0	6	0	16	2
Bhutan	.	.	.	.	.	0	137	0	0	0	137	27
Bolivia	203	640	174	625	372	105	112	0	454	802	3,485	349
Bosnia and Herzegovina	459	591	748	903	1,232	371	987	1,235	939	900	8,364	836
Botswana	744	0	161	293	0	611	1,157	1,146	1,082	0	5,194	519
Brazil	498	154	933	2,145	201	0	3,152	0	347	3,292	10,722	1,072
Brunei Darussalam	2,205	2,329	1,838	1,190	3,969	5,786	5,860	8,232	5,420	0	36,829	3,683
Bulgaria	539	716	889	0	1,218	986	3,052	4,229	0	0	11,629	1,163
Burkina Faso	166	136	115	295	198	183	321	408	214	380	2,417	242
Burundi	31	6	14	19	104	119	65	32	60	37	489	49
Cambodia	254	280	367	449	426	583	45	786	737	1,056	4,985	498
Cameroon	487	177	279	896	522	980	1,221	1,480	0	0	6,040	604
Cape Verde	24	8	12	0	0	9	0	108	40	68	268	27
Central African Republic	33	78	14	0	14	0	0	0	35	0	174	17
Chad	.	.	.	.	.	.	.	.	.	.	.	.
Chile	861	952	724	270	1,324	1,526	450	0	0	558	6,665	666
China, Mainland	142,202	153,797	183,530	251,058	283,483	296,078	326,661	348,421	336,109	420,362	2,741,700	274,170
Colombia	1,501	0	1,316	1,808	0	0	0	127	0	0	4,752	475
Comoros	21	9	6	16	16	26	20	21	11	11	158	16
Congo, Democratic Republic of	346	581	412	598	968	565	170	0	0	0	3,639	364
Congo, Republic of	1,154	220	1,034	3,054	672	2,149	1,728	2,636	620	1,761	15,027	1,503
Costa Rica	1,913	2,426	3,423	4,690	5,757	5,831	6,258	7,040	8,854	17,507	63,699	6,370
Cote d'Ivoire	0	26	1,500	916	1,546	972	0	44	37	25	5,066	507
Croatia	958	638	1,355	1,305	1,288	1,722	1,659	2,263	1,637	1,010	13,836	1,384
Djibouti	205	172	212	230	277	357	279	401	301	480	2,915	292
Dominica	17	12	18	26	41	46	75	150	127	127	638	64



Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	1,549	676	1,913	981	458	869	371	1,141	3,963	5,025	16,946	1,695
Ecuador	1,486	317	0	860	1,317	0	0	4,739	131	0	8,850	885
Egypt	2,270	1,492	1,217	3,119	4,964	4,200	4,515	5,998	0	2,145	29,919	2,992
El Salvador	457	1,130	695	730	1,036	855	956	827	944	908	8,539	854
Equatorial Guinea	450	0	0	0	0	0	0	1,968	2,876	2,904	8,198	820
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	901	1,236	487	354	787	1,148	1,446	1,755	3,044	5,642	16,800	1,680
Fiji	147	205	253	249	259	407	239	390	275	280	2,705	270
Gabon	104	125	260	357	439	0	0	0	0	0	1,285	129
Gambia, The	17	19	11	31	54	31	73	64	41	134	474	47
Georgia	244	248	386	450	403	674	444	898	517	509	4,773	477
Ghana	51	0	0	0	0	0	37	374	1,259	0	1,721	172
Grenada	0	0	10	1	25	0	0	0	0	0	36	4
Guatemala	1,998	1,404	1,362	1,350	1,489	808	950	878	3,366	2,617	16,221	1,622
Guinea	307	116	318	451	295	292	644	261	0	378	3,062	306
Guinea-Bissau	15	45	0	38	25	14	194	5	42	74	451	45
Guyana	126	60	80	127	208	142	290	258	182	407	1,880	188
Haiti	0	0	0	40	0	88	95	121	46	62	451	45
Honduras	2,567	2,679	2,722	2,920	3,189	3,363	3,401	3,297	3,203	3,465	30,805	3,081
Hungary	0	0	0	2,100	2,580	2,744	349	3,373	771	2,187	14,104	1,410
India	7,884	8,292	9,447	22,609	30,945	0	0	26,820	279	1,613	107,889	10,789
Indonesia	0	1,763	15,120	17,636	11,383	12,724	15,490	16,540	2,974	1,480	95,110	9,511
Iran, Islamic Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Iraq	.	.	.	.	0	0	3,660	19,648	18,060	22,214	63,582	10,597
Jamaica	249	364	428	435	823	225	212	932	457	0	4,126	413
Jordan	154	130	0	0	0	206	0	0	0	0	490	49
Kazakhstan	654	0	932	1,016	1,800	3,128	2,966	5,746	783	0	17,025	1,703
Kenya	0	0	277	67	234	0	258	0	0	0	835	83
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	0	0	0	0	0	0	0	0
Kuwait	2,869	1,869	574	0	0	0	4,732	10,049	0	0	20,092	2,009
Kyrgyz Republic	0	22	0	19	0	0	356	0	241	71	711	71
Lao PDR	51	130	82	0	0	516	850	591	705	402	3,328	333
Latvia	837	720	774	1,197	1,087	665	212	577	0	0	6,068	607
Lebanon	1,034	309	0	1,014	610	2,818	7,067	3,001	4,110	960	20,923	2,092
Lesotho	0	179	71	0	74	176	314	330	476	0	1,621	162
Liberia	.	897	815	851	987	1,578	1,904	650	1,329	737	9,749	1,083
Libya	1,206	0	0	0	1,450	0	0	1,753	0	2,137	6,545	655
Lithuania	0	0	0	0	49	289	54	0	0	0	392	39
Macedonia, FYR	1	178	280	381	483	287	765	1,024	582	631	4,613	461
Madagascar	57	128	0	832	460	1,643	0	682	185	0	3,987	399
Malawi	357	112	210	159	494	458	453	1,013	751	684	4,691	469

**Table 8. Illicit Financial Flows (HMN+GER Normalized) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	13,068	12,543	17,731	19,579	28,079	29,616	32,478	37,348	30,414	64,383	285,239	28,524
Maldives	114	148	103	68	38	44	0	0	0	0	514	51
Mali	0	6	274	128	169	224	186	967	467	373	2,795	279
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	86	0	0	0	0	0	0	0	301	423	811	81
Mexico	36,303	36,714	38,433	41,208	48,101	49,508	61,966	61,132	51,073	51,168	475,608	47,561
Moldova	209	132	226	337	241	192	446	507	228	0	2,518	252
Mongolia	32	0	6	0	81	14	212	775	0	0	1,120	112
Montenegro	.	.	.	.	925	860	1,198	1,473	902	896	6,254	1,042
Morocco	0	182	297	282	3,786	521	0	412	2,452	160	8,091	809
Mozambique	60	249	0	0	0	330	0	0	0	0	639	64
Myanmar	14	19	78	141	604	626	336	1,362	1,010	2,132	6,322	632
Namibia	18	0	89	0	0	444	807	841	1,104	317	3,619	362
Nepal	603	545	356	421	501	683	584	883	1,551	1,884	8,013	801
Nicaragua	436	770	625	1,056	1,017	1,521	1,208	1,527	1,210	1,556	10,926	1,093
Niger	50	9	15	87	100	0	18	57	282	554	1,171	117
Nigeria	0	0	0	0	17,345	17,151	14,399	20,740	26,330	15,350	111,315	11,131
Oman	555	842	565	396	859	2,458	0	0	1,031	0	6,707	671
Pakistan	0	0	44	0	202	0	0	51	0	729	1,026	103
Panama	2,231	2,223	2,406	2,705	3,930	4,617	5,546	5,786	5,082	5,343	39,868	3,987
Papua New Guinea	2	0	0	0	59	15	0	73	480	990	1,618	162
Paraguay	156	568	199	0	214	1,123	839	1,579	1,447	1,412	7,537	754
Peru	1,147	0	0	0	0	407	138	123	596	0	2,412	241
Philippines	6,540	7,091	11,184	12,242	17,484	17,798	22,462	18,111	8,292	16,619	137,824	13,782
Poland	0	981	1,961	0	798	0	3,302	12,161	10,045	10,462	39,710	3,971
Qatar	1,031	1,260	0	5,568	4,703	0	2,310	2,206	30,365	0	47,443	4,744
Romania	0	856	289	0	0	0	1,320	2,065	1,729	119	6,378	638
Russian Federation	28,698	6,078	9,179	5,870	7,913	0	13,347	11,277	1,726	8,285	92,374	9,237
Rwanda	50	53	37	229	35	90	126	94	371	496	1,580	158
Samoa	51	59	84	82	322	116	145	176	103	115	1,253	125
Sao Tome and Principe	0	0	0	0	0	6	10	32	6	10	64	6
Saudi Arabia	0	0	0	0	34,751	20,560	15,629	30,026	60,754	34,380	196,100	19,610
Senegal	0	0	0	0	0	0	0	0	0	0	0	0
Serbia, Republic of	4,080	5,469	7,409	9,776	6,434	5,407	4,194	212	5,713	2,750	51,443	5,144
Seychelles	82	220	153	82	75	0	0	0	0	0	613	61
Sierra Leone	24	70	95	94	94	28	68	32	7	4	515	51
Solomon Islands	28	25	35	77	88	94	136	173	91	166	912	91
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	0	485	0	0	0	10,927	19,838	21,006	18,921	0	71,176	7,118
Sri Lanka	0	0	114	189	72	106	165	0	0	881	1,527	153
St. Kitts and Nevis	6	0	0	8	0	1	0	19	0	0	34	3
St. Lucia	0	2	0	0	15	0	1	10	9	0	37	4

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	11	0	0	17	23	16	0	0	0	0	67	7
Sudan	400	272	14	0	0	88	1,124	9,290	6,396	8,582	26,166	2,617
Suriname	56	106	74	120	115	0	0	285	19	168	944	94
Swaziland	0	0	92	0	41	538	1,168	389	465	0	2,693	269
Syrian Arab Republic	13,085	160	0	13,018	1,215	1,488	746	1,226	747	0	31,684	3,168
Tajikistan	.	56	30	32	77	265	337	18	0	0	815	91
Tanzania	297	551	340	96	704	0	0	443	380	480	3,290	329
Thailand	327	0	0	710	0	0	0	0	0	3,837	4,874	487
Timor-Leste, Dem. Rep. of	.	.	.	.	.	3	9	7	0	5	25	5
Togo	159	61	302	151	168	131	227	438	200	120	1,956	196
Tonga	17	15	27	51	21	25	49	28	33	5	271	27
Trinidad and Tobago	235	1,428	1,576	2,117	2,192	143	2,321	0	2,917	4,326	17,256	1,726
Tunisia	0	34	47	128	27	37	37	0	0	0	311	31
Turkey	2,091	759	0	0	0	0	0	0	0	0	2,849	285
Turkmenistan	.	.	.	.	.	.	.	.	.	.	.	.
Uganda	7	124	304	509	816	465	682	1,130	1,470	1,261	6,767	677
Ukraine	152	889	834	0	0	0	458	0	0	0	2,334	233
United Arab Emirates	0	800	1,000	5,500	11,800	0	51,700	23,500	7,600	0	101,900	10,190
Uruguay	0	2,688	353	346	174	152	801	0	0	1,573	6,087	609
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	0	21	22	25	17	4	5	0	37	0	130	13
Venezuela, Rep. Bolivariana de	3,601	2,781	795	2,503	13,589	2,211	939	608	3,520	2,313	32,861	3,286
Vietnam	847	1,038	0	915	396	0	578	1,045	9,022	3,690	17,530	1,753
Yemen, Republic of	110	0	0	0	0	0	0	0	0	0	110	11
Zambia	154	0	556	583	1,342	505	1,306	0	62	65	4,573	457
Zimbabwe	342	655	0	297	360	1,787	0	0	0	0	3,442	344

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries.

Note: Illicit financial flows calculated using normalized GER estimates.

**Table 9. Illicit Financial Flows (HMN+GER Non-normalized)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	1,289	513	203	0	0	0	0	41	110	2,157	240
Albania	14	0	14	15	91	103	315	405	233	164	1,356	136
Algeria	1,626	490	497	746	203	2,260	500	3,358	3,767	1,265	14,713	1,471
Angola	309	68	822	0	574	0	1,641	1,236	0	181	4,830	483
Antigua and Barbuda	16	40	5	19	11	11	7	4	7	0	120	12
Argentina	3,698	2,488	1,428	1,166	760	0	1,380	4,748	0	1,036	16,703	1,670
Armenia, Republic of	273	175	250	103	316	220	447	1,210	1,071	1,192	5,255	526
Aruba	1,264	805	1,224	2,188	3,537	3,708	3,933	4,919	1,842	123	23,544	2,354
Azerbaijan, Republic of	1	87	112	50	126	256	361	845	1,461	990	4,288	429
Bahamas, The	484	772	1,001	1,063	1,843	1,331	1,622	2,086	1,669	2,208	14,080	1,408
Bahrain, Kingdom of	146	609	1,288	1,468	2,215	2,256	1,629	30	66	0	9,708	971
Bangladesh	864	740	967	945	1,162	2,778	2,737	848	649	2,367	14,059	1,406
Barbados	24	300	329	572	532	64	54	7	0	94	1,976	198
Belarus	1	289	13	0	0	286	0	194	0	0	784	78
Belize	109	75	121	92	102	88	172	134	106	75	1,074	107
Benin	0	0	62	125	35	0	0	0	6	0	228	23
Bhutan	.	.	.	.	.	0	137	0	0	0	137	27
Bolivia	366	855	174	625	372	105	112	0	454	802	3,864	386
Bosnia and Herzegovina	459	591	748	903	1,232	371	987	1,235	939	900	8,364	836
Botswana	815	79	161	499	277	611	1,157	1,146	1,082	213	6,039	604
Brazil	498	154	2,122	3,609	1,903	0	8,587	7,792	6,143	4,286	35,095	3,510
Brunei Darussalam	2,205	2,329	1,838	1,190	3,969	5,786	5,860	8,232	5,420	212	37,042	3,704
Bulgaria	539	1,156	1,546	425	1,720	986	4,218	4,738	526	0	15,854	1,585
Burkina Faso	166	136	115	295	198	183	321	408	214	380	2,417	242
Burundi	31	6	17	19	104	119	65	32	60	37	492	49
Cambodia	254	280	367	449	426	583	45	786	737	1,056	4,985	498
Cameroon	487	291	279	896	522	980	1,221	1,480	227	362	6,743	674
Cape Verde	24	8	12	0	0	9	0	108	40	68	268	27
Central African Republic	33	78	14	7	14	0	2	0	35	0	183	18
Chad	.	.	.	.	.	.	.	.	.	.	.	.
Chile	1,946	2,004	1,673	1,559	2,846	2,863	2,628	5,750	939	1,968	24,174	2,417
China, Mainland	142,202	153,797	183,530	251,058	283,483	296,078	326,661	348,421	336,109	420,362	2,741,700	274,170
Colombia	1,501	1,079	1,316	1,808	1,379	540	628	2,886	1,355	51	12,544	1,254
Comoros	21	9	6	16	16	26	20	21	11	11	158	16
Congo, Democratic Republic of	346	581	412	598	968	565	377	0	277	260	4,382	438
Congo, Republic of	1,154	220	1,034	3,054	672	2,149	1,728	2,636	620	1,761	15,027	1,503
Costa Rica	1,913	2,426	3,423	4,690	5,757	5,831	6,258	7,040	8,854	17,507	63,699	6,370
Cote d'Ivoire	45	26	1,500	916	1,546	972	761	470	543	101	6,881	688
Croatia	958	997	1,950	1,612	1,438	1,722	1,659	2,263	1,637	1,010	15,248	1,525
Djibouti	205	172	212	230	277	357	279	401	301	480	2,915	292
Dominica	17	12	18	26	41	46	75	150	127	127	638	64

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	1,549	676	1,913	981	458	869	371	1,141	3,963	5,025	16,946	1,695
Ecuador	1,486	612	23	860	1,317	608	692	4,739	398	611	11,345	1,135
Egypt	2,270	1,492	1,217	3,119	4,964	4,200	4,515	5,998	0	3,212	30,985	3,099
El Salvador	592	1,130	695	730	1,036	855	956	827	944	908	8,674	867
Equatorial Guinea	450	59	0	322	175	360	917	1,968	2,876	2,904	10,030	1,003
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	901	1,236	487	407	787	1,148	1,446	1,755	3,044	5,642	16,853	1,685
Fiji	147	205	253	249	259	407	239	390	275	280	2,705	270
Gabon	824	512	503	616	439	0	0	0	0	0	2,895	289
Gambia, The	17	19	11	31	54	31	73	64	41	134	474	47
Georgia	244	248	386	450	403	674	444	898	517	509	4,773	477
Ghana	513	0	0	0	0	0	37	374	1,259	0	2,183	218
Grenada	0	0	10	1	25	0	0	0	0	0	36	4
Guatemala	1,998	1,404	1,362	1,350	1,489	808	950	878	3,366	2,617	16,221	1,622
Guinea	307	116	318	451	295	292	644	261	0	378	3,062	306
Guinea-Bissau	15	45	6	38	25	14	194	9	42	74	460	46
Guyana	126	60	80	127	208	142	290	258	182	407	1,880	188
Haiti	2	11	31	40	41	88	95	121	80	62	570	57
Honduras	2,567	2,679	2,722	2,920	3,189	3,363	3,401	3,297	3,203	3,465	30,805	3,081
Hungary	0	0	0	2,100	2,580	2,744	349	3,373	1,089	2,187	14,422	1,442
India	7,884	8,292	9,447	22,609	30,945	10,512	4,923	26,820	279	1,613	123,324	12,332
Indonesia	320	2,872	15,120	17,636	11,383	12,724	15,490	16,540	11,560	5,212	108,858	10,886
Iran, Islamic Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Iraq	.	.	.	.	0	0	3,660	19,648	18,060	22,214	63,582	10,597
Jamaica	249	364	428	435	823	225	212	932	457	26	4,152	415
Jordan	154	130	0	162	0	206	0	97	132	0	881	88
Kazakhstan	1,066	1,000	1,067	1,016	1,800	3,128	2,966	5,746	783	589	19,161	1,916
Kenya	72	0	312	203	234	43	258	0	0	0	1,121	112
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	0	0	0	0	0	0	0	0
Kuwait	3,120	2,316	574	18	744	884	5,083	10,049	1,403	0	24,190	2,419
Kyrgyz Republic	0	22	0	19	0	0	356	0	241	71	711	71
Lao PDR	51	130	82	8	0	516	850	591	705	489	3,423	342
Latvia	837	720	774	1,197	1,087	665	784	738	0	0	6,800	680
Lebanon	1,034	309	0	1,014	740	2,818	7,067	3,001	4,110	960	21,053	2,105
Lesotho	18	198	71	66	74	176	314	330	476	62	1,785	179
Liberia	.	897	815	851	987	1,578	1,904	650	1,329	737	9,749	1,083
Libya	3,620	59	0	0	1,450	0	0	1,753	0	2,137	9,018	902
Lithuania	0	0	0	0	49	289	54	2,540	1,239	2,752	6,924	692
Macedonia, FYR	1	178	280	381	483	287	765	1,024	582	631	4,613	461
Madagascar	81	128	66	832	460	1,643	121	682	185	32	4,231	423
Malawi	357	112	210	159	494	458	453	1,013	751	684	4,691	469

**Table 9. Illicit Financial Flows (HMN+GER Non-normalized) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	13,068	12,543	17,731	19,579	28,079	29,616	32,478	37,348	30,414	64,383	285,239	28,524
Maldives	114	148	103	68	38	44	4	0	0	0	518	52
Mali	52	51	274	128	169	224	186	967	467	373	2,891	289
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	103	2	107	40	0	0	0	166	301	423	1,143	114
Mexico	36,303	36,714	38,433	41,208	48,101	49,508	61,966	61,132	51,073	51,168	475,608	47,561
Moldova	209	132	226	337	241	192	446	507	228	0	2,518	252
Mongolia	32	0	6	0	81	14	212	775	0	0	1,120	112
Montenegro	.	.	.	.	925	860	1,198	1,473	902	896	6,254	1,042
Morocco	343	335	597	982	3,786	792	688	1,877	2,452	980	12,832	1,283
Mozambique	68	249	75	0	0	330	126	0	0	0	850	85
Myanmar	380	19	140	674	604	626	336	1,362	1,010	2,132	7,283	728
Namibia	65	41	89	129	168	444	807	841	1,104	511	4,198	420
Nepal	603	545	356	421	501	683	584	883	1,551	1,884	8,013	801
Nicaragua	436	770	625	1,056	1,017	1,521	1,208	1,527	1,210	1,556	10,926	1,093
Niger	50	9	15	87	100	0	64	57	282	554	1,217	122
Nigeria	906	0	0	1,702	17,829	19,135	19,304	24,184	26,330	19,655	129,045	12,904
Oman	583	985	898	466	859	2,458	129	0	1,031	0	7,410	741
Pakistan	0	0	44	0	202	0	505	728	298	729	2,506	251
Panama	2,231	2,223	2,406	2,705	3,930	4,617	5,546	5,786	5,082	5,343	39,868	3,987
Papua New Guinea	2	52	124	93	59	15	33	184	480	990	2,030	203
Paraguay	156	568	199	0	214	1,123	839	1,579	1,447	1,412	7,537	754
Peru	1,147	718	728	614	972	1,058	673	1,432	2,173	0	9,515	952
Philippines	6,540	7,091	11,184	12,242	17,484	17,798	22,462	18,111	8,292	16,619	137,824	13,782
Poland	0	1,303	2,066	632	798	0	3,302	12,161	10,045	10,462	40,770	4,077
Qatar	2,540	1,031	1,260	0	5,568	4,878	168	7,117	21,187	12,362	56,110	5,611
Romania	30	856	289	0	0	0	3,754	2,065	1,729	119	8,842	884
Russian Federation	28,698	6,078	11,676	20,357	7,913	0	13,347	11,277	8,602	43,638	151,586	15,159
Rwanda	50	53	37	229	35	90	126	94	371	496	1,580	158
Samoa	51	59	84	82	322	116	145	176	103	115	1,253	125
Sao Tome and Principe	0	0	0	0	0	6	10	32	6	10	64	6
Saudi Arabia	0	0	0	0	36,444	21,021	16,345	32,965	64,886	38,301	209,962	20,996
Senegal	9	0	0	0	6	0	0	0	0	0	15	1
Serbia, Republic of	4,080	5,469	7,409	9,776	6,434	5,407	4,194	212	5,713	2,750	51,443	5,144
Seychelles	82	220	153	82	75	4	0	0	0	0	617	62
Sierra Leone	24	70	95	94	94	28	68	51	7	4	533	53
Solomon Islands	28	25	35	77	88	94	136	173	91	166	912	91
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	984	1,446	0	3,052	4,113	10,927	19,838	21,006	18,921	3,615	83,901	8,390
Sri Lanka	0	0	114	189	72	106	165	0	0	881	1,527	153
St. Kitts and Nevis	6	0	0	8	0	1	0	19	0	0	34	3
St. Lucia	0	2	0	0	15	0	1	10	9	0	37	4

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	11	0	0	17	23	16	0	0	0	0	67	7
Sudan	400	272	14	0	139	158	1,124	9,290	6,396	8,582	26,374	2,637
Suriname	56	106	74	120	115	31	9	285	72	168	1,037	104
Swaziland	38	32	92	119	174	538	1,168	389	465	67	3,081	308
Syrian Arab Republic	13,085	254	91	13,018	1,215	1,956	854	1,226	747	158	32,603	3,260
Tajikistan	.	56	30	32	77	265	337	18	0	0	815	91
Tanzania	297	551	340	96	704	0	0	443	420	480	3,329	333
Thailand	2,225	1,490	2,070	4,171	8,352	6,095	4,198	14,880	8,406	12,371	64,257	6,426
Timor-Leste, Dem. Rep. of	.	.	.	.	.	3	9	7	0	5	25	5
Togo	159	61	302	151	168	131	227	438	200	120	1,956	196
Tonga	17	15	27	51	21	25	49	28	33	5	271	27
Trinidad and Tobago	311	1,428	1,576	2,117	2,192	763	2,321	888	2,917	4,326	18,839	1,884
Tunisia	0	34	47	128	27	37	37	0	0	0	311	31
Turkey	2,874	2,581	2,088	18	1,736	906	3,432	3,519	8,244	3,558	28,955	2,896
Turkmenistan	694	685	600	.	.	.	.	.	.	.	1,978	659
Uganda	33	130	304	509	816	465	682	1,130	1,470	1,261	6,800	680
Ukraine	152	889	834	0	0	0	458	290	727	1,253	4,604	460
United Arab Emirates	4,600	0	800	1,000	5,500	11,800	0	51,700	23,500	7,600	106,500	10,650
Uruguay	191	2,688	353	346	460	290	801	132	528	1,573	7,363	736
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	0	21	22	25	17	4	5	0	37	0	130	13
Venezuela, Rep. Bolivariana de	5,933	3,277	795	4,542	13,770	2,211	939	608	3,520	2,313	37,909	3,791
Vietnam	847	1,038	0	915	396	0	578	1,045	9,022	3,690	17,530	1,753
Yemen, Republic of	110	0	0	0	0	4	468	1,910	0	0	2,492	249
Zambia	249	0	556	583	1,342	505	1,306	260	268	407	5,476	548
Zimbabwe	342	655	0	297	360	1,787	96	14	103	0	3,655	365

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries.

Note: Illicit financial flows calculated using non-normalized GER estimates.

**Table 10. Normalized Illicit Financial Flows (CED Normalized+GER Normalized)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	1,289	513	203	13,934	0	761	0	576	110	17,386	1,932
Albania	0	0	0	0	91	103	315	405	233	164	1,312	131
Algeria	0	1,942	2,699	0	0	0	0	0	0	0	4,642	464
Angola	0	2,155	2,455	1,982	4,269	0	7,777	0	0	0	18,637	1,864
Antigua and Barbuda	63	53	98	0	16	101	0	0	0	0	332	33
Argentina	17,984	12,366	20,898	3,479	0	0	0	16,666	11,678	12,331	95,401	9,540
Armenia, Republic of	497	352	403	403	316	333	904	1,494	1,305	1,709	7,718	772
Aruba	1,259	847	1,448	2,448	3,611	4,240	4,657	4,907	1,917	123	25,457	2,546
Azerbaijan, Republic of	0	462	482	0	0	1,664	3,269	14,215	11,573	16,456	48,122	4,812
Bahamas, The	484	772	1,001	1,063	1,694	1,331	1,622	2,086	1,616	1,925	13,595	1,360
Bahrain, Kingdom of	0	1,348	909	2,569	4,099	6,830	3,797	4,534	3,103	3,268	30,457	3,046
Bangladesh	758	2,081	2,224	1,707	0	4,689	3,234	2,289	0	5,565	22,549	2,255
Barbados	0	300	329	572	532	64	54	0	0	0	1,852	185
Belarus	0	0	0	0	0	0	0	0	0	0	0	0
Belize	109	66	134	88	131	138	212	122	101	75	1,176	118
Benin	0	0	0	0	0	0	0	0	0	0	0	0
Bhutan	.	.	.	.	0	0	174	0	0	0	174	29
Bolivia	0	938	914	663	604	0	0	0	1,123	0	4,242	424
Bosnia and Herzegovina	459	591	748	903	1,232	371	919	1,162	939	900	8,222	822
Botswana	868	0	876	1,238	559	1,435	2,058	1,936	3,141	1,360	13,472	1,347
Brazil	0	8,136	9,582	0	0	0	0	0	0	0	17,718	1,772
Brunei Darussalam	2,019	1,945	2,585	2,925	.	5,261	4,958	7,116	4,468	6,048	37,325	4,147
Bulgaria	539	953	1,991	1,676	0	5,085	9,344	11,471	4,961	0	36,021	3,602
Burkina Faso	166	132	111	295	196	174	321	408	214	380	2,397	240
Burundi	0	6	0	0	30	119	28	32	47	37	300	30
Cambodia	254	280	327	403	412	511	0	742	729	1,027	4,685	469
Cameroon	325	0	279	896	473	980	1,221	1,480	0	0	5,653	565
Cape Verde	3	0	3	0	0	38	0	25	0	20	89	9
Central African Republic	33	78	14	0	14	0	0	0	35	0	174	17
Chad	0	0	0	0	384	1,222	2,020	2,366	637	0	6,628	663
Chile	3,452	4,009	3,884	8,862	6,209	15,044	26,629	0	15,251	19,590	102,930	10,293
China, Mainland	183,203	153,797	183,530	251,058	283,483	296,078	326,661	348,421	294,726	367,426	2,688,382	268,838
Colombia	3,904	0	5,111	1,808	0	2,848	3,136	0	3,333	0	20,140	2,014
Comoros	27	27	20	24	16	26	20	21	11	11	204	20
Congo, Democratic Republic of	516	345	2,156	1,126	922	1,475	3,440	1,370	0	0	11,351	1,135
Congo, Republic of	1,142	1,033	2,122	4,687	672	3,204	1,529	2,636	620	1,761	19,408	1,941
Costa Rica	1,913	2,375	3,423	4,690	5,757	5,831	6,258	6,992	8,854	17,310	63,403	6,340
Cote d'Ivoire	0	591	2,308	2,214	1,508	2,298	923	0	0	0	9,842	984
Croatia	993	2,054	0	0	0	0	0	2,562	2,058	2,721	10,388	1,039
Djibouti	222	266	302	292	268	428	496	345	339	434	3,392	339
Dominica	17	12	18	26	41	46	75	150	127	121	632	63



Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	1,519	2,313	2,754	1,859	0	1,680	778	1,125	3,834	4,064	19,926	1,993
Ecuador	1,819	1,737	785	1,827	1,317	2,115	0	4,738	0	0	14,338	1,434
Egypt	1,124	3,993	5,728	8,062	2,533	13,494	13,818	6,842	2,913	0	58,508	5,851
El Salvador	1,131	1,154	1,995	730	1,302	728	956	827	944	1,629	11,396	1,140
Equatorial Guinea	848	0	410	0	0	0	0	1,968	2,876	2,904	9,005	901
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	672	1,462	784	0	787	1,148	1,563	1,755	3,944	5,679	17,795	1,779
Fiji	147	70	206	249	158	254	239	390	203	280	2,197	220
Gabon	0	375	1,159	1,370	1,667	1,652	885	2,652	1,409	1,688	12,857	1,286
Gambia, The	53	87	82	60	20	72	44	33	167	161	781	78
Georgia	244	248	442	531	403	612	411	4,073	517	735	8,214	821
Ghana	0	362	0	0	0	0	0	855	0	0	1,218	122
Grenada	0	0	0	0	0	0	0	0	0	0	0	0
Guatemala	1,998	1,339	1,301	4,471	1,489	808	1,929	878	3,366	2,257	19,836	1,984
Guinea	304	116	161	451	295	291	644	261	0	378	2,901	290
Guinea-Bissau	15	97	52	68	19	21	205	0	32	69	579	58
Guyana	81	59	60	84	140	90	209	202	182	230	1,336	134
Haiti	0	0	0	40	0	88	95	121	0	62	405	41
Honduras	2,524	2,679	2,722	2,920	2,985	3,031	3,048	3,297	2,857	3,465	29,527	2,953
Hungary	3,841	0	9,715	8,296	0	12,000	32,333	18,506	0	0	84,692	8,469
India	7,172	8,102	9,447	22,609	30,404	0	0	26,820	0	0	104,554	10,455
Indonesia	0	0	20,519	14,542	11,204	12,724	14,122	35,565	15,979	0	124,655	12,466
Iran, Islamic Republic of	3,320	2,654	6,992	0	0	0	0	0	0	0	12,965	1,296
Iraq	.	.	.	.	.	.	.	10,404	11,944	14,263	36,611	12,204
Jamaica	235	303	820	602	823	1,137	1,728	582	457	1,672	8,359	836
Jordan	663	393	802	605	0	961	0	0	0	0	3,424	342
Kazakhstan	3,541	3,698	5,193	11,821	13,667	22,554	25,772	28,991	7,344	8,229	130,811	13,081
Kenya	0	0	0	0	0	0	0	0	0	0	0	0
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	.	.	.	.	.	.	.	.
Kuwait	7,517	7,320	16,110	15,595	29,297	44,241	55,232	53,405	0	19,878	248,595	24,860
Kyrgyz Republic	0	66	112	403	0	0	0	306	308	0	1,194	119
Lao PDR	0	624	0	152	93	1,007	1,789	1,009	829	312	5,814	581
Latvia	836	1,787	2,020	3,164	791	3,912	11,082	0	1,035	0	24,628	2,463
Lebanon	2,990	1,175	0	1,342	0	2,222	3,105	1,255	1,068	960	14,116	1,412
Lesotho	0	0	0	0	74	176	314	330	358	0	1,253	125
Liberia	.	897	815	851	948	1,480	1,828	608	1,040	631	9,098	1,011
Libya	1,875	0	0	0	0	4,291	9,157	21,015	4,383	11,326	52,047	5,205
Lithuania	0	0	0	1,926	0	3,964	5,373	0	0	0	11,262	1,126
Macedonia, FYR	151	168	247	1,171	477	623	1,551	994	923	630	6,935	694
Madagascar	0	128	0	797	460	1,643	0	682	185	0	3,896	390
Malawi	135	112	183	159	470	418	453	860	696	684	4,171	417

**Table 10. Normalized Illicit Financial Flows (CED Normalized+GER Normalized) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	20,466	12,153	17,727	19,579	38,719	44,582	47,702	67,963	46,678	81,231	396,798	39,680
Maldives	109	148	103	68	38	44	0	0	0	0	510	51
Mali	0	0	274	102	145	187	186	967	393	373	2,626	263
Mauritania	.	.	.	.	.	.	.	.	.	.	.	.
Mauritius	0	0	0	0	0	0	0	0	301	423	724	72
Mexico	32,999	34,811	34,022	36,392	44,231	48,380	59,508	61,132	34,578	33,429	419,482	41,948
Moldova	209	308	226	337	241	310	446	507	228	498	3,310	331
Mongolia	0	66	566	168	0	290	485	537	0	0	2,111	211
Montenegro	.	.	.	.	925	860	1,198	1,473	1,890	896	7,242	1,207
Morocco	0	0	0	0	3,382	0	0	0	1,931	0	5,312	531
Mozambique	0	189	0	0	0	330	0	0	0	0	520	52
Myanmar	0	1,166	973	0	0	901	1,831	1,278	1,140	0	7,290	729
Namibia	365	296	1,269	1,149	524	2,163	1,723	841	1,626	1,431	11,386	1,139
Nepal	603	1,010	506	537	501	683	804	776	1,551	1,703	8,675	868
Nicaragua	436	443	525	650	954	1,120	1,174	1,213	1,130	1,256	8,902	890
Niger	50	0	0	87	100	0	0	0	276	554	1,067	107
Nigeria	2,846	5,135	9,751	12,333	14,454	12,791	24,690	37,403	27,732	28,573	175,709	17,571
Oman	0	0	0	0	3,822	8,019	0	7,378	0	5,300	24,519	2,452
Pakistan	0	2,026	3,522	1,852	0	0	0	3,384	0	0	10,783	1,078
Panama	2,608	2,223	3,281	3,262	3,571	7,390	5,072	5,786	7,252	5,343	45,787	4,579
Papua New Guinea	0	0	0	0	0	0	0	0	480	899	1,379	138
Paraguay	156	684	158	376	0	1,123	627	1,579	1,447	1,412	7,562	756
Peru	1,147	894	1,567	0	0	2,910	0	0	5,189	0	11,707	1,171
Philippines	6,540	7,091	10,286	11,968	15,685	16,206	20,380	16,992	8,292	14,631	128,072	12,807
Poland	0	10,609	20,005	20,201	0	31,781	42,867	0	14,180	0	139,643	13,964
Qatar	4,923	4,108	4,537	9,771	15,382	23,255	26,026	44,960	42,604	40,994	216,560	21,656
Romania	0	1,851	3,291	0	0	6,825	10,620	8,057	11,933	0	42,577	4,258
Russian Federation	37,583	12,546	35,579	37,046	66,388	0	48,593	203,251	0	0	440,985	44,099
Rwanda	50	53	37	221	35	90	126	88	371	490	1,560	156
Samoa	51	59	84	79	322	116	142	137	103	115	1,209	121
Sao Tome and Principe	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,740	0	27,627	50,755	47,657	52,217	58,963	39,726	81,186	61,987	427,857	42,786
Senegal	0	0	0	0	0	0	0	0	0	0	0	0
Serbia, Republic of	4,080	5,469	7,409	9,776	6,434	5,407	4,194	0	5,637	2,750	51,156	5,116
Seychelles	82	210	232	82	184	368	297	0	123	0	1,579	158
Sierra Leone	24	53	45	40	32	0	53	0	0	0	247	25
Solomon Islands	28	25	35	70	88	94	136	171	91	153	891	89
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	0	0	0	0	0	10,927	19,838	21,006	18,117	0	69,887	6,989
Sri Lanka	0	524	0	0	0	0	958	0	0	0	1,482	148
St. Kitts and Nevis	0	0	0	0	0	0	0	0	0	0	0	0
St. Lucia	0	0	0	0	0	0	0	0	0	0	0	0

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	376	490	1,140	1,018	0	0	1,124	10,973	5,663	11,095	31,879	3,188
Suriname	56	106	74	120	115	0	0	185	0	0	657	66
Swaziland	0	250	0	0	0	300	771	389	410	172	2,291	229
Syrian Arab Republic	13,085	0	0	12,761	1,078	2,404	1,213	1,558	1,088	0	33,187	3,319
Tajikistan	0	104	0	0	0	254	148	1,761	0	0	2,268	227
Tanzania	0	0	0	0	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	0	0	0	0	0	0	0	0
Timor-Leste, Dem. Rep. of	.	.	.	.	.	.	.	.	.	.	.	.
Togo	154	61	292	151	168	131	227	438	200	120	1,940	194
Tonga	17	15	538	3,339	9	13	43	19	6	13	4,013	401
Trinidad and Tobago	558	1,886	2,892	4,412	4,470	6,499	7,691	8,205	5,931	8,748	51,294	5,129
Tunisia	917	2,476	2,327	0	0	1,296	1,716	0	0	0	8,732	873
Turkey	5,482	10,715	0	0	0	16,869	21,636	0	0	0	54,701	5,470
Turkmenistan	.	.	.	.	.	.	.	.	.	.	.	.
Uganda	0	0	140	238	362	456	676	1,130	1,309	1,261	5,572	557
Ukraine	8,885	3,975	4,479	11,866	0	20,852	21,247	15,256	15,311	7,657	109,527	10,953
United Arab Emirates	5,700	7,208	16,966	27,131	44,290	50,825	45,068	97,739	24,792	0	319,718	31,972
Uruguay	328	4,103	353	979	0	0	522	0	963	3,071	10,318	1,032
Uzbekistan	.	.	.	.	.	.	.	.	.	.	.	.
Vanuatu	18	20	0	5	0	0	6	0	26	0	75	7
Venezuela, Rep. Bolivariana de	4,300	9,329	8,527	14,862	30,789	18,386	28,866	29,122	14,944	18,885	178,009	17,801
Vietnam	0	0	0	0	0	0	0	0	12,968	11,049	24,017	2,402
Yemen, Republic of	0	0	0	0	0	0	0	0	0	0	0	0
Zambia	0	0	387	1,121	1,279	465	1,999	0	0	2,289	7,540	754
Zimbabwe	342	992	197	297	360	1,787	0	0	0	0	3,976	398

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries and external debt data reported to the World Bank by those countries.

**Table 11. Non-normalized Illicit Financial Flows (CED Non-normalized+GER Non-normalized)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Afghanistan	.	1,289	513	203	13,934	0	761	0	576	110	17,386	1,932
Albania	14	0	52	15	125	103	315	405	233	164	1,428	143
Algeria	1,626	2,432	3,197	1,879	667	2,098	2,635	0	1,094	0	15,627	1,563
Angola	207	2,155	2,455	1,982	4,269	2,699	7,777	3,239	773	0	25,555	2,556
Antigua and Barbuda	63	53	98	0	16	101	0	0	1	0	332	33
Argentina	18,872	12,964	20,898	4,645	760	0	2,058	21,414	11,678	12,331	105,619	10,562
Armenia, Republic of	497	352	403	403	316	333	904	1,494	1,305	1,709	7,718	772
Aruba	1,259	847	1,448	2,448	3,611	4,240	4,657	4,907	1,917	123	25,457	2,546
Azerbaijan, Republic of	68	462	482	0	589	1,664	3,269	14,215	11,573	16,456	48,779	4,878
Bahamas, The	484	772	1,001	1,063	1,694	1,331	1,622	2,086	1,616	1,925	13,595	1,360
Bahrain, Kingdom of	291	1,348	1,497	2,569	4,099	6,830	3,797	4,534	3,103	3,268	31,337	3,134
Bangladesh	758	2,472	2,224	1,707	533	4,689	3,234	3,018	874	5,565	25,075	2,508
Barbados	24	300	411	572	532	201	643	0	185	30	2,898	290
Belarus	0	581	92	0	931	0	991	127	0	2,107	4,829	483
Belize	109	74	134	88	131	138	212	122	106	94	1,209	121
Benin	0	83	62	144	35	0	0	0	0	0	324	32
Bhutan	.	.	.	.	0	0	174	0	0	0	174	29
Bolivia	164	1,153	914	663	604	0	0	664	1,123	124	5,408	541
Bosnia and Herzegovina	459	591	748	903	1,232	371	2,018	1,162	1,460	900	9,842	984
Botswana	939	79	876	1,444	836	1,435	2,058	1,936	3,141	1,573	14,317	1,432
Brazil	0	8,136	10,772	4,440	1,702	0	5,435	25,778	5,795	11,558	73,616	7,362
Brunei Darussalam	2,019	1,945	2,585	2,925	4,234	5,261	4,958	7,116	4,468	6,260	41,771	4,177
Bulgaria	539	1,394	2,648	2,102	778	5,085	10,510	11,980	5,487	0	40,523	4,052
Burkina Faso	166	132	111	295	196	174	321	408	214	380	2,397	240
Burundi	0	93	84	28	30	119	28	32	47	37	499	50
Cambodia	313	426	414	526	478	602	184	742	729	1,059	5,472	547
Cameroon	325	435	1,152	896	473	980	1,221	1,480	227	362	7,550	755
Cape Verde	3	0	3	0	0	38	0	25	0	20	89	9
Central African Republic	33	363	24	49	14	0	2	0	35	0	520	52
Chad	0	0	0	0	384	1,222	2,020	2,366	637	0	6,628	663
Chile	4,537	5,060	4,833	10,151	7,731	16,381	28,807	12,335	16,189	21,001	127,025	12,702
China, Mainland	183,203	161,905	191,624	251,058	293,004	383,100	408,556	410,959	294,726	435,601	3,013,735	301,374
Colombia	3,904	1,079	5,111	2,221	3,193	3,388	3,764	4,603	4,687	51	32,002	3,200
Comoros	27	27	20	24	16	26	20	21	11	11	204	20
Congo, Democratic Republic of	516	345	2,156	1,126	922	1,475	3,647	1,370	277	260	12,095	1,209
Congo, Republic of	1,142	1,033	2,122	4,687	798	3,204	1,529	2,972	1,098	1,761	20,348	2,035
Costa Rica	1,941	2,375	3,423	4,690	6,059	5,831	6,508	7,415	8,854	17,778	64,875	6,488
Cote d'Ivoire	45	591	2,308	2,214	1,508	2,298	1,684	427	1,153	76	12,304	1,230
Croatia	993	2,413	1,190	308	442	1,011	82	2,562	2,058	2,721	13,779	1,378
Djibouti	222	266	302	292	268	428	496	345	339	434	3,392	339
Dominica	28	12	52	26	41	46	75	150	127	121	678	68

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Dominican Republic	1,519	2,313	2,754	1,859	0	1,680	778	1,125	3,957	4,064	20,049	2,005
Ecuador	1,819	2,032	808	1,827	1,441	2,724	1,827	6,022	267	1,010	19,777	1,978
Egypt	1,124	3,993	5,728	8,062	2,750	13,494	13,818	6,842	2,913	2,033	60,757	6,076
El Salvador	1,266	1,154	1,995	992	1,302	728	956	827	944	1,629	11,794	1,179
Equatorial Guinea	848	177	410	322	175	360	917	1,968	2,876	2,904	10,956	1,096
Eritrea	.	.	.	.	.	.	.	.	.	.	.	.
Ethiopia	672	1,462	784	52	787	1,148	1,563	1,755	3,944	5,679	17,847	1,785
Fiji	147	161	206	249	158	415	239	390	203	280	2,448	245
Gabon	835	762	1,402	1,629	1,667	1,652	885	2,652	1,409	1,688	14,582	1,458
Gambia, The	53	87	82	60	20	72	44	33	167	161	781	78
Georgia	244	264	442	531	403	612	411	4,073	517	735	8,230	823
Ghana	461	362	37	0	0	0	126	855	284	682	2,808	281
Grenada	0	24	0	8	0	0	0	0	0	0	33	3
Guatemala	1,998	1,339	1,301	4,471	1,744	910	1,929	878	3,366	2,387	20,324	2,032
Guinea	304	189	264	451	295	358	700	261	0	378	3,199	320
Guinea-Bissau	15	97	58	68	19	21	205	4	32	69	589	59
Guyana	81	89	98	84	140	90	209	212	182	610	1,794	179
Haiti	2	11	116	40	68	232	95	121	34	62	780	78
Honduras	2,524	2,894	2,852	2,920	2,985	3,031	3,048	3,297	3,386	3,465	30,402	3,040
Hungary	3,841	2,696	9,715	8,296	6,102	12,000	32,333	18,506	2,814	0	96,304	9,630
India	7,172	8,102	9,447	22,609	30,404	16,109	4,923	38,452	5,698	0	142,917	14,292
Indonesia	320	1,110	20,519	18,971	14,645	12,724	22,657	35,565	24,565	5,912	156,989	15,699
Iran, Islamic Republic of	3,320	2,654	6,992	0	0	0	0	0	0	0	12,965	1,296
Iraq	.	.	.	.	0	0	53,545	13,121	11,944	14,263	92,873	15,479
Jamaica	235	303	820	602	823	1,137	1,728	582	509	1,698	8,437	844
Jordan	663	393	802	767	0	961	0	97	132	0	3,815	381
Kazakhstan	3,952	4,698	5,329	11,821	13,667	22,554	25,772	28,991	7,344	8,817	132,947	13,295
Kenya	72	508	576	136	0	43	0	0	0	0	1,334	133
Kiribati	.	.	.	.	.	.	.	.	.	.	.	.
Kosovo, Republic of	.	.	.	.	.	.	.	.	.	0	0	0
Kuwait	7,769	7,767	16,110	15,613	30,041	45,124	55,583	53,405	1,403	19,878	252,693	25,269
Kyrgyz Republic	0	66	112	403	0	61	0	306	308	0	1,255	126
Lao PDR	0	624	0	160	93	1,007	1,789	1,009	829	398	5,909	591
Latvia	836	1,787	2,020	3,164	791	3,912	11,654	161	1,035	0	25,361	2,536
Lebanon	2,990	1,175	0	1,342	130	2,222	3,105	1,255	1,068	960	14,246	1,425
Lesotho	18	283	205	278	74	176	314	330	553	62	2,293	229
Liberia	0	1,054	1,001	988	948	1,593	1,828	608	1,040	631	9,691	969
Libya	4,289	59	0	0	1,968	4,291	9,157	21,015	4,383	11,326	56,488	5,649
Lithuania	110	433	0	1,926	0	3,964	5,373	2,540	2,883	2,752	19,980	1,998
Macedonia, FYR	151	232	321	1,171	477	623	1,551	994	923	773	7,215	722
Madagascar	24	128	159	797	460	1,643	121	682	185	32	4,232	423
Malawi	135	115	249	209	470	418	453	860	696	684	4,289	429

**Table 11. Non-normalized Illicit Financial Flows (CED Non-normalized+GER Non-normalized) (cont)**  
(in millions of U.S. dollars)

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
Malaysia	20,466	20,156	22,303	19,579	38,719	44,582	47,702	67,963	46,678	81,231	409,378	40,938
Maldives	151	148	103	68	38	44	4	0	0	0	556	56
Mali	52	45	274	165	145	187	186	967	393	373	2,787	279
Mauritania	0	20	133	0	.	.	.	.	.	.	153	38
Mauritius	215	2	117	40	0	0	0	166	301	13,310	14,152	1,415
Mexico	46,423	34,811	38,640	48,114	52,688	54,560	80,476	72,450	34,578	43,560	506,301	50,630
Moldova	224	308	292	337	241	310	506	507	228	498	3,452	345
Mongolia	0	66	566	168	29	290	485	537	0	153	2,294	229
Montenegro	.	.	.	.	925	860	1,198	1,473	1,890	896	7,242	1,207
Morocco	343	632	2,752	700	3,382	2,644	3,460	1,465	1,931	821	18,128	1,813
Mozambique	9	189	75	83	0	330	126	0	0	0	813	81
Myanmar	366	1,166	1,035	735	206	901	1,831	1,278	1,140	19	8,677	868
Namibia	412	337	1,269	1,278	692	2,163	1,723	841	1,626	1,625	11,965	1,196
Nepal	603	1,010	506	537	501	710	804	776	1,618	1,703	8,769	877
Nicaragua	436	443	525	650	954	1,120	1,174	1,213	1,130	1,256	8,902	890
Niger	50	60	105	87	100	0	46	0	276	554	1,278	128
Nigeria	3,753	5,135	9,751	14,035	14,939	14,775	29,595	40,847	27,732	32,877	193,438	19,344
Oman	558	572	354	70	3,822	8,019	850	7,378	0	5,300	26,923	2,692
Pakistan	0	2,026	3,522	1,852	0	0	505	4,060	298	482	12,745	1,274
Panama	2,608	2,238	3,281	3,262	3,571	7,390	5,072	5,786	7,252	5,343	45,801	4,580
Papua New Guinea	0	52	182	93	572	0	33	997	480	4,152	6,560	656
Paraguay	156	684	234	376	0	1,224	627	1,729	1,447	1,732	8,209	821
Peru	1,147	1,612	2,295	1,365	1,016	3,561	534	1,309	6,766	0	19,606	1,961
Philippines	6,540	10,192	13,799	13,717	18,399	20,185	23,950	18,492	10,756	19,149	155,180	15,518
Poland	2,786	10,931	20,110	20,834	0	31,781	42,867	0	14,180	812	144,301	14,430
Qatar	5,258	4,108	4,537	9,771	15,382	23,430	26,194	49,767	42,604	41,972	223,022	22,302
Romania	30	1,851	3,291	920	519	6,825	13,054	8,057	11,933	0	46,481	4,648
Russian Federation	37,583	12,546	38,075	51,533	66,388	4,603	48,593	203,251	15,632	71,768	549,972	54,997
Rwanda	50	56	57	221	35	90	126	88	371	490	1,584	158
Samoa	51	86	118	79	322	116	142	143	103	115	1,274	127
Sao Tome and Principe	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia	7,740	2,680	27,627	50,755	49,351	52,677	59,678	42,665	85,317	65,908	444,399	44,440
Senegal	9	54	0	0	6	0	0	0	0	0	69	7
Serbia, Republic of	4,080	5,469	7,409	9,776	6,434	5,407	5,094	0	5,637	2,750	52,055	5,206
Seychelles	82	210	232	94	184	372	297	0	123	0	1,594	159
Sierra Leone	24	109	160	65	83	0	53	18	0	0	511	51
Solomon Islands	28	25	35	98	88	94	136	171	91	153	918	92
Somalia	.	.	.	.	.	.	.	.	.	.	.	.
South Africa	11,323	5,099	1,148	3,052	4,113	10,927	19,838	21,006	18,117	3,615	98,237	9,824
Sri Lanka	0	524	218	355	0	0	958	0	0	513	2,568	257
St. Kitts and Nevis	31	0	9	0	12	4	0	0	0	0	56	6
St. Lucia	0	0	0	0	25	0	14	190	0	0	229	23

Country Names	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Cumulative	Average
St. Vincent and the Grenadines	0	0	0	0	0	0	0	0	0	0	0	0
Sudan	376	490	1,140	1,018	139	70	1,620	10,973	5,663	11,095	32,583	3,258
Suriname	56	106	74	120	115	31	9	274	53	429	1,267	127
Swaziland	38	282	154	283	133	348	771	389	410	239	3,046	305
Syrian Arab Republic	13,085	93	91	13,209	1,078	2,873	1,321	1,558	1,088	158	34,553	3,455
Tajikistan	0	104	0	58	0	254	148	1,761	0	0	2,327	233
Tanzania	0	607	0	956	0	0	0	0	40	71	1,674	167
Thailand	1,898	1,490	2,957	4,715	8,352	6,095	10,517	14,880	14,894	8,534	74,332	7,433
Timor-Leste, Dem. Rep. of	.	.	.	.	.	619	1,039	2,081	1,335	1,588	6,663	1,333
Togo	154	129	320	151	168	131	227	438	200	120	2,037	204
Tonga	17	15	538	3,339	9	13	43	19	6	13	4,013	401
Trinidad and Tobago	634	1,886	2,892	4,412	4,470	7,119	7,691	9,093	5,931	8,748	52,877	5,288
Tunisia	917	2,476	2,327	334	0	1,296	1,716	0	0	0	9,066	907
Turkey	6,266	12,537	6,330	2,357	1,736	17,775	25,068	11,138	8,244	3,558	95,007	9,501
Turkmenistan	694	685	600	.	.	.	.	.	.	.	1,978	659
Uganda	26	311	715	498	362	456	676	1,187	1,309	1,261	6,801	680
Ukraine	8,885	3,975	4,479	11,866	2,779	20,852	21,247	15,546	16,038	8,910	114,577	11,458
United Arab Emirates	5,700	7,208	16,966	27,131	44,290	50,825	45,068	97,739	24,792	8,691	328,409	32,841
Uruguay	519	4,103	353	979	286	139	763	132	1,491	3,071	11,835	1,184
Uzbekistan	.	.	606	792	728	1,356	2,988	3,134	4,787	3,825	18,216	2,277
Vanuatu	18	20	1	5	0	0	6	0	26	0	75	8
Venezuela, Rep. Bolivariana de	6,632	9,825	8,527	16,901	30,970	18,386	28,866	29,122	14,944	18,885	183,057	18,306
Vietnam	1,471	1,085	25	1,876	305	0	0	264	12,968	11,049	29,044	2,904
Yemen, Republic of	98	233	0	0	0	131	468	1,910	0	0	2,839	284
Zambia	95	0	439	1,121	1,279	465	1,999	357	450	2,631	8,835	884
Zimbabwe	342	992	197	297	360	1,787	96	14	103	0	4,189	419

Source: Staff estimates, Global Financial Integrity, based on official balance of payments and trade data reported to the IMF by member countries and external debt data reported to the World Bank by those countries.

**Table 12. Countries for which estimation of illicit flows could not be completed due to missing data**

Country	HMN	GER			Exports F.O.B.
		DOTS	IFS	HK-MO	
Afghanistan	x		x		
Algeria	x				
Angola			x		
Antigua and Barbuda		x			
Azerbaijan, Republic of				x	
Belarus				x	
Bhutan	x	x			
Brunei Darussalam	x		x		
Burkina Faso	x				
Cape Verde		x			
Central African Republic	x				
Chad	x			x	
Comoros	x				
Congo	x				
Equatorial Guinea	x				
Eritrea	x	x	x		x
Gabon	x				
Gambia	x				
Grenada				x	
Guinea-Bissau	x				
Iran, Islamic Republic of	x				
Iraq	x		x		
Kiribati	x	x	x	x	x
Kosovo, Republic of	x	x	x	x	x
Kyrgyz Republic				x	
Lebanon	x				
Liberia	x		x		
Madagascar	x				
Mauritania	x		x		
Montenegro	x		x		
Niger	x				
Samoa	x				
Sao Tome and Principe				x	
Serbia, Republic of	x				
Somalia	x		x		x
St. Kitts and Nevis				x	
St. Lucia				x	
St. Vincent and the Grenadines				x	
Tajikistan	x			x	
Timor-Leste, Dem. Rep. of	x	x	x	x	x
Tonga	x				
Turkmenistan	x		x		x
Uzbekistan	x		x	x	x
Vanuatu				x	
Zimbabwe	x				

Country	HMN	GER
Afghanistan	x	
Algeria	x	
Angola		
Antigua and Barbuda		x
Azerbaijan, Republic of		
Belarus		
Bhutan	x	x
Brunei Darussalam	x	
Burkina Faso	x	
Cape Verde		x
Central African Republic	x	
Chad	x	
Comoros	x	
Congo	x	
Equatorial Guinea	x	
Eritrea	x	x
Gabon	x	
Gambia	x	
Grenada		
Guinea-Bissau	x	
Iran, Islamic Republic of	x	
Iraq	x	
Kiribati	x	x
Kosovo, Republic of	x	x
Kyrgyz Republic		
Lebanon	x	
Liberia	x	
Madagascar	x	
Mauritania	x	
Montenegro	x	
Niger	x	
Samoa	x	
Sao Tome and Principe		
Serbia, Republic of	x	
Somalia	x	
St. Kitts and Nevis		
St. Lucia		
St. Vincent and the Grenadines		
Tajikistan	x	
Timor-Leste, Dem. Rep. of	x	x
Tonga	x	
Turkmenistan	x	
Uzbekistan	x	
Vanuatu		
Zimbabwe	x	

Note: An X indicates missing data in each specified category for some or all years over the period 2001-2010.

Note: HMN refers to balance of payments data required for estimation of the Hot Money Narrow method, DOTS refers to Direction of Trade Statistics world trade data, HK-MO refers to Hong Kong and Macao trade data within the Direction of Trade Statistics, and Exports f.o.b. refers to exports f.o.b. data from the International Financial Statistics (IFS) database.



**Table 13. Geographical Regions**

Africa (48)	Asia (27)	Developing Europe (27)	MENA (15)	Western Hemisphere (33)
Angola	Afghanistan, Islamic Republic of	Albania	Algeria	Antigua and Barbuda
Benin	Bangladesh	Armenia, Republic of	Bahrain, Kingdom of	Argentina
Botswana	Bhutan	Azerbaijan, Republic of	Egypt	Aruba
Burkina Faso	Brunei Darussalam	Belarus	Iran, Islamic Republic of	Bahamas, The
Burundi	Cambodia	Bosnia and Herzegovina	Iraq	Barbados
Cameroon	China, P.R.: Mainland	Bulgaria	Jordan	Belize
Cape Verde	Fiji	Croatia	Kuwait	Bolivia
Central African Republic	India	Cyprus	Lebanon	Brazil
Chad	Indonesia	Georgia	Libya	Chile
Comoros	Kiribati	Hungary	Morocco	Colombia
Congo, Democratic Republic of	Lao People's Democratic Republic	Kazakhstan	Oman	Costa Rica
Congo, Republic of	Malaysia	Kosovo, Republic of	Saudi Arabia	Dominica
Cote d'Ivoire	Maldives	Kyrgyz Republic	Syrian Arab Republic	Dominican Republic
Djibouti	Mongolia	Latvia	Tunisia	Ecuador
Equatorial Guinea	Myanmar	Lithuania	Yemen, Republic of	El Salvador
Eritrea	Nepal	Macedonia, FYR		Grenada
Ethiopia	Pakistan	Malta		Guatemala
Gabon	Papua New Guinea	Moldova		Guyana
Gambia, The	Philippines	Montenegro		Haiti
Ghana	Samoa	Poland		Honduras
Guinea	Solomon Islands	Romania		Jamaica
Guinea-Bissau	Sri Lanka	Russian Federation		Mexico
Kenya	Thailand	Serbia, Republic of		Nicaragua
Lesotho	Timor-Leste, Dem. Rep. of	Tajikistan		Panama
Liberia	Tonga	Turkey		Paraguay
Madagascar	Vanuatu	Turkmenistan		Peru
Malawi	Vietnam	Ukraine		St. Kitts and Nevis
Mali				St. Lucia
Mauritania				St. Vincent and the Grenadines
Mauritius				Suriname
Mozambique				Trinidad and Tobago
Namibia				Uruguay
Niger				Venezuela, Republica Bolivariana de
Nigeria				
Rwanda				
Sao Tome and Principe				
Senegal				
Seychelles				
Sierra Leone				
Somalia				
South Africa				
Sudan				
Swaziland				
Tanzania				
Togo				
Uganda				
Zambia				
Zimbabwe				

Note: The total number of countries included in our analysis is 150.

**Table 14. Largest Sovereign Wealth Funds by Assets Under Management, Developing Countries**

(As of End-October 2012, in billions of U.S. dollars)

Country	Sovereign Wealth Fund Name	Assets	Year	Type	Average IFFs
Algeria	Revenue Regulation Fund	56.7	2000	Oil	1.6
Angola	Fundo Soberano de Angola	5.0	2012	Oil	2.6
Australia	Australian Future Fund	78.2	2006	Non-Commodity	n/a
Azerbaijan, Republic of	State Oil Fund	32.7	1999	Oil	n/a
Bahrain, Kingdom of	Mumtalakat Holding Company	9.1	2006	Non-Commodity	3.1
Botswana	Pula Fund	6.9	1994	Diamonds & Minerals	1.4
Brazil	Sovereign Fund of Brazil	11.3	2008	Non-Commodity	7.4
Brunei Darussalam	Brunei Investment Agency	30.0	1983	Oil	4.2
Canada	Alberta's Heritage Fund	15.9	1976	Oil	n/a
<b>Chile</b>	<b>Total</b>	<b>20.4</b>	<b>n/a</b>	<b>Copper</b>	<b>12.7</b>
Chile	Social and Economic Stabilization Fund	14.7	2007	Copper	n/a
Chile	Pension Reserve Fund	5.7	2006	Copper	n/a
<b>China, Mainland</b>	<b>Total</b>	<b>1,189.4</b>	<b>n/a</b>	<b>Non-Commodity</b>	<b>301.4</b>
China 2/	SAFE Investment Company	567.9	1997	Non-Commodity	n/a
China	China Investment Corporation	482.0	2007	Non-Commodity	n/a
China	National Social Security Fund	134.5	2000	Non-Commodity	n/a
China	China-Africa Development Fund	5.0	2007	Non-Commodity	n/a
China – Hong Kong	Hong Kong Monetary Authority Investment Portfolio	293.3	1993	Non-Commodity	n/a
Timor-Leste	Timor-Leste Petroleum Fund	10.2	2005	Oil & Gas	n/a
Equatorial Guinea	Fund for Future Generations	0.1	2002	Oil	1.1
France	Strategic Investment Fund	28.0	2008	Non-Commodity	n/a
Gabon	Gabon Sovereign Wealth Fund	0.4	1998	Oil	1.5
Indonesia	Government Investment Unit	0.3	2006	Non-Commodity	15.7
Iran, Islamic Republic of	National Development Fund of Iran	40.0	2011	Oil & Gas	1.3
Ireland	National Pensions Reserve Fund	17.5	2001	Non-Commodity	n/a
Italy	Italian Strategic Fund	1.4	2011	Non-Commodity	n/a
Kazakhstan	Kazakhstan National Fund	61.8	2000	Oil	13.3
Kiribati	Revenue Equalization Reserve Fund	0.4	1956	Phosphates	.
Kuwait	Kuwait Investment Authority	296.0	1953	Oil	25.3
Libya	Libyan Investment Authority	65.0	2006	Oil	5.6
Malaysia	Khazanah Nasional	34.0	1993	Non-Commodity	40.9
Mauritania	National Fund for Hydrocarbon Reserves	0.3	2006	Oil & Gas	.0
Mexico	Oil Revenues Stabilization Fund of Mexico	6.0	2000	Oil	50.6
Mongolia	Fiscal Stability Fund	n/a	2011	Minerals	.2
New Zealand	New Zealand Superannuation Fund	15.5	2003	Non-Commodity	n/a
Nigeria	Nigerian Sovereign Investment Authority	1.0	2011	Oil	19.3
Norway	Government Pension Fund – Global	656.2	1990	Oil	n/a
<b>Oman</b>	<b>Total</b>	<b>8.2</b>	<b>n/a</b>	<b>Oil &amp; Gas</b>	<b>2.7</b>
Oman	State General Reserve Fund	8.2	1980	Oil & Gas	n/a
Oman	Oman Investment Fund	n/a	2006	Oil	n/a
Palestine	Palestine Investment Fund	0.8	2003	Non-Commodity	n/a
Papua New Guinea	Papua New Guinea Sovereign Wealth Fund	n/a	2011	Gas	.7
Peru	Fiscal Stabilization Fund	7.1	1999	Non-Commodity	2.0
Qatar	Qatar Investment Authority	115.0	2005	Oil	22.3
Russian Federation 3/	National Welfare Fund	149.7	2008	Oil	55.0
<b>Saudi Arabia</b>	<b>Total</b>	<b>538.1</b>	<b>n/a</b>	<b>Oil</b>	<b>44.4</b>
Saudi Arabia	SAMA Foreign Holdings	532.8	n/a	Oil	n/a
Saudi Arabia	Public Investment Fund	5.3	2008	Oil	n/a
<b>Singapore</b>	<b>Total</b>	<b>405.0</b>	<b>n/a</b>	<b>Non-Commodity</b>	<b>n/a</b>
Singapore	Government of Singapore Investment Corporation	247.5	1981	Non-Commodity	n/a
Singapore	Temasek Holdings	157.5	1974	Non-Commodity	n/a
South Korea	Korea Investment Corporation	43.0	2005	Non-Commodity	n/a
Trinidad and Tobago	Heritage and Stabilization Fund	2.9	2000	Oil	5.3
<b>United Arab Emirates</b>	<b>Total</b>	<b>816.6</b>	<b>n/a</b>	<b>Oil</b>	<b>32.8</b>
UAE – Abu Dhabi	Abu Dhabi Investment Authority	627.0	1976	Oil	n/a
UAE – Abu Dhabi	International Petroleum Investment Company	65.3	1984	Oil	n/a
UAE – Abu Dhabi	Mubadala Development Company	53.1	2002	Oil	n/a
UAE – Abu Dhabi	Abu Dhabi Investment Council	n/a	2007	Oil	n/a
UAE – Dubai	Investment Corporation of Dubai	70.0	2006	Oil	n/a
UAE – Federal	Emirates Investment Authority	n/a	2007	Oil	n/a
UAE – Ras Al Khaimah	RAK Investment Authority	1.2	2005	Oil	n/a
<b>United States</b>	<b>Total</b>	<b>90.7</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
US – Alabama	Alabama Trust Fund	2.5	1985	Oil & Gas	n/a
US – Alaska	Alaska Permanent Fund	42.3	1976	Oil	n/a
US – New Mexico	New Mexico State Investment Council	14.3	1958	Non-Commodity	n/a
US – North Dakota	North Dakota Legacy Fund	0.5	2011	Oil & Gas	n/a
US – Texas	Texas Permanent School Fund	25.5	1854	Oil & Other	n/a
US – Wyoming	Permanent Wyoming Mineral Trust Fund	5.6	1974	Minerals	n/a
Venezuela, Rep. Bolivariana de	FEM	0.8	1998	Oil	18.3
Vietnam	State Capital Investment Corporation	0.5	2006	Non-Commodity	2.9

1/ Source: Sovereign Wealth Fund Institute; All figures quoted are from official sources, or, where the institutions concerned do not report their assets, from other publicly available sources. Some of these figures are best estimates as market values change daily.

2/ This number is an estimate by the Sovereign Wealth Fund Institute analysts.

3/ Includes the oil stabilization fund of Russia.

**Table 15. Net Errors and Omissions in Relation to Financial Account for 10 Countries with the Largest Sovereign Wealth Funds 1/ 2/**  
(in billions of U.S.dollars or in percent)

Country 3/	SWF Assets and Concept 4/	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
<b>China, Mainland 5/</b>	<b>(1,189)</b>											
	Financial Account	12.6	42.9	50.8	81.6	159.4	239.5	369.6	442.5	205.8	189.5	179.4
	Net Errors and Omissions	-4.7	7.5	7.8	12.8	22.9	3.6	13.3	18.8	-41.4	-52.9	18.6
	NEO/FA	37.5	17.5	15.3	15.6	14.4	1.5	3.6	4.3	20.1	27.9	15.8
<b>United Arab Emirates 6/</b>	<b>(817)</b>											
	Financial Account	-1.5	-10.7	-7.8	-8.4	-14.7	-17.8	28.7	-19.9	8.4	5.8	12.4
	Net Errors and Omissions	-4.6	8.3	-0.8	-1.0	-5.5	-11.8	6.5	-51.7	-23.5	-7.6	12.1
	NEO/FA	306.7	77.6	10.3	11.9	37.4	66.3	22.6	259.8	279.8	131.0	120.3
<b>Norway</b>	<b>(656)</b>											
	Financial Account	26.2	17.3	22.1	27.5	51.4	44.8	19.4	77.6	57.0	40.5	38.4
	Net Errors and Omissions	-1.2	-6.8	-6.3	-5.3	1.8	-11.0	-30.2	4.9	15.9	-11.3	9.5
	NEO/FA	4.6	39.5	28.6	19.3	3.4	24.5	156.0	6.3	27.9	27.8	33.8
<b>Saudi Arabia 7/</b>	<b>(533)</b>											
	Financial Account	9.4	11.9	28.0	51.9	55.3	78.5	77.8	102.3	-39.8	32.4	48.7
	Net Errors and Omissions	0.0	0.0	0.0	0.0	-34.8	-20.6	-15.6	-30.0	-60.8	-34.4	19.6
	NEO/FA	0.0	0.0	0.0	0.0	62.8	26.2	20.1	29.4	152.7	106.2	39.7
<b>Singapore</b>	<b>(405)</b>											
	Financial Account	7.8	12.1	24.6	19.5	27.8	36.4	45.6	28.5	34.0	55.1	29.2
	Net Errors and Omissions	-3.3	0.5	3.0	0.6	1.0	0.7	-0.2	2.2	3.9	-0.4	1.6
	NEO/FA	42.8	4.5	12.2	2.9	3.5	2.0	0.5	7.7	11.3	0.8	8.8
<b>Kuwait</b>	<b>(296)</b>											
	Financial Account	8.4	4.1	10.3	17.4	33.3	53.1	38.1	51.9	30.4	47.0	29.4
	Net Errors and Omissions	-2.9	-1.9	-0.6	1.5	2.5	7.1	-4.7	-10.0	1.0	6.6	3.9
	NEO/FA	34.2	45.9	5.6	8.8	7.6	13.3	12.4	19.4	3.4	14.0	16.5
<b>China, Hong Kong</b>	<b>(293)</b>											
	Financial Account	11.3	17.4	21.9	23.4	22.8	26.6	34.6	31.8	24.7	24.9	23.9
	Net Errors and Omissions	2.7	7.0	6.5	8.0	3.3	4.1	7.7	0.2	2.1	7.2	4.9
	NEO/FA	23.9	40.1	29.8	34.1	14.4	15.3	22.2	0.7	8.4	29.1	21.8
<b>Russian Federation 8/</b>	<b>(150)</b>											
	Financial Account	15.0	10.7	25.2	52.0	63.9	104.4	54.2	92.7	35.0	62.9	51.6
	Net Errors and Omissions	-9.6	-6.1	-9.2	-5.9	-7.9	9.5	-13.3	-11.3	-1.7	-8.3	8.3
	NEO/FA	63.6	57.1	36.4	11.3	12.4	9.1	24.6	12.2	4.9	13.2	24.5
<b>Qatar 6/</b>	<b>(115)</b>											
	Financial Account	-2.5	-2.6	-3.0	-8.6	-6.6	-9.6	-16.1	-29.1	2.1	-7.8	8.8
	Net Errors and Omissions	-2.2	-1.0	-1.3	2.5	-5.6	-4.7	1.2	-2.3	-2.2	-11.4	3.4
	NEO/FA	88.8	39.1	42.1	29.3	84.6	49.2	7.6	7.9	103.3	145.9	59.8
<b>United States</b>	<b>(91)</b>											
	Financial Account	-0.4	-0.5	-0.5	-0.5	-0.7	-0.8	-0.6	-0.7	-0.2	-0.4	0.5
	Net Errors and Omissions	0.0	0.0	0.0	0.1	0.0	0.0	0.1	-0.1	0.1	0.1	0.1
	NEO/FA	4.2	8.6	2.2	17.5	4.6	0.8	15.0	8.1	59.4	15.5	13.6

1/ Source: Sovereign Wealth Fund Institute, IMF Balance of Payments database, IMF country reports.

2/ SWF is sovereign wealth fund, NEO is net errors and omissions, FA is financial account. Averages of NEO and FA are averages of the absolute values.

3/ Ranked by size of sovereign wealth fund. China, UAE, Saudi Arabia, Singapore, the United States SWF data represent the total of all SWFs.

4/ Sovereign Wealth Fund data has been updated through 2012.

5/ SAFE Investment Company SWF data are estimates.

6/ Net errors and omissions and financial account data United Arab Emirates and Qatar are taken from IMF country reports.

7/ NEO, FA, and NEO/FA averages are calculated from 2005-2010, the years for which data are available.

8/ This includes the oil stabilization fund of Russia.







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