GLOBAL FINANCIAL INTEGRITY

The Implied Tax Revenue Loss from Trade Mispricing

February 2010

Ann Hollingshead

THE IMPLIED TAX REVENUE LOSS FROM TRADE MISPRICING

Ann Hollingshead

Global Financial Integrity
February 2010

Contents

Abstract

A recent study by Global Financial Integrity (2008) found illicit financial flows from developing countries averaged $859 billion to $1.06 trillion in 2006. The purpose of this paper is to estimate the loss of tax revenue to developing country governments resulting from a portion of this massive outflow of illicit capital. This paper uses national corporate income tax rates to estimate the tax revenue loss from trade mispricing which occurs through re-invoicing. This process shifts profits out of developing countries either through import overinvoicing or export underinvoicing. We find the average tax revenue loss in developing countries was between US$98 billion and US$106 billion annually over the years 2002 to 2006. This figure represents an average loss of about 4.4% of the entire developing worlds' total tax revenue.

Acknowledgement: The author would like to thank Doyle Galvin for his assistance and contribution to this report.

February 2010

Trade Mispricing: A Note on Concepts

We are pleased to present our report, "Implied Tax Revenue Loss From Trade Mispricing."

This work analyzes tax revenues lost due to one form of trade mispricing, that which arises when transactions are reinvoiced. This occurs when goods leave a country of export under one invoice, then the invoice is redirected to another jurisdiction such as a tax haven where the price is altered, and then the revised invoice is sent to the importing country for clearing and payment purposes. Data on this form of mispricing are obtained from International Monetary Fund Direction of Trade Statistics, which report annual exports and imports for all pairs of reporting countries.

We do not in this study analyze trade mispricing that occurs within the same invoice, and we do not cover trade in services and intangibles, which are not addressed in IMF Direction of Trade Statistics. Each of these phenomenon likewise move considerable sums of tax evading money across borders.

Focusing only on reinvoicing, our estimate is that developing countries lose approximately US$100 billion a year from this form of trade mispricing alone. Our study well supports the work of Christian Aid, which estimates tax losses for developing countries from all forms of trade mispricing at US$160 billion a year.

Trade mispricing moves more illicit money across borders than any other single phenomenon. The tax revenues lost for developing countries through this mechanism are roughly comparable to the amount of Official Development Assistance going into developing countries. Curtailing this tax loss will therefore greatly contribute to revenues available for poverty alleviation and sustainable growth in poorer countries. To curtail such tax losses, developing and developed countries alike must work to curb the global shadow financial system that facilitates illicit financial flows.

Global Financial Integrity thanks Ann Hollingshead for her work in producing this analysis. We plan to continue our examination of this issue in additional analyses to follow.

Raymond W. Baker
Director
Global Financial Integrity

EXECUTIVE SUMMARY

Poor countries lose billions in revenue due to trade mispricing: funds could aid development

In a follow-up to its 2008 report "Illicit Financial Flows from Developing Countries: 2002-2006," which estimated illicit monetary outflows from the developing world to be $1 trillion per year, Global Financial Integrity (GFI) has conducted an analysis of the **tax revenue loss** developing countries suffer **due to trade mispricing**. GFI uses estimates of illicit financial flows coupled with individual country corporate tax rates to estimate the lost tax revenue.

1. FINDINGS: GFI's analysis found that the average tax revenue loss to all developing countries was between $98 billion and $106 billion annually during the years 2002 through 2006. This figure represents an average loss of about 4.4 percent of the entire developing world's government revenue.

2. METHODOLOGY: Using PricewaterhouseCoopers and the Heritage Foundation as sources for corporate income tax rates for each developing country, GFI applied these rates to country estimates of trade mispricing. These calculations yielded an estimate of the amount of government revenue, by country, which is lost due to trade mispricing. These figures were then compared to total government revenue as estimated by the World Bank.

3. TERMINOLOGY: Illicit financial flows: refers to the cross-border movement of money that is illegally earned, transferred, or utilized. Illicit financial flows generally involve the transfer of money earned through illegal activities such as corruption, transactions involving contraband goods, criminal activities, and efforts to shelter wealth from a country's tax authorities.
Trade mispricing: refers to the deliberate overinvoicing of imports or underinvoicing of exports, usually for the purpose of tax evasion. This practice is a significant component of illicit financial outflows and a major conduit through which residents of developing countries transfer money abroad illegally.

4. CONCLUSIONS: This study shows that trade mispricing is one of the most prominent drivers of illicit financial outflows. The loss of taxable revenue by way of these illicit outflows drains developing country governments of much needed capital assets which in turn undermines broader efforts to alleviate poverty, pay for public works programs, or foster good governance.

5. SOLUTIONS: Increasing transparency in the global financial system is critical to reducing the outflow of illicit money from developing countries. Banking secrecy and the global shadow financial system provides the consistent means for these ill-gotten gains to be transferred out of their country of origin and into secrecy jurisdictions and other points of absorption. *GFI will be publishing a new report on these points of absorption later this year.*

By increasing transparency in the global financial system, the outflow of illicit money from developing countries may be significantly curtailed.

RECOMMENDATIONS FOR ACHIEVING THIS GREATER TRANSPARENCY:

- Curtail trade mispricing;
- Require country-by-country reporting of sales, profits and taxes paid by multinational corporations;
- Require beneficial ownership information of all subsidiaries, trusts, and foundations;
- Require automatic cross-border exchange between government authorities of tax information on personal and business accounts; and
- Harmonize predicate offenses under anti-money laundering laws across all Financial Action Task Force cooperating countries.

To view the full report:
The Implied Tax Revenue Loss From Trade Mispricing
visit **www.gfip.org** or **www.financialtaskforce.org**

Table 5. Countries with Largest Tax Revenue Loss in Percent of Government Revenue, Average 2002-2006 (in millions of U.S. dollars)

	Country	Average Non-Normalized Trade Mispricing	Average Tax Revenue Loss Non-Normalized	Average Government Revenue (Excluding Grants)	Loss of Tax Revenue (In Percent of Government Revenue)
1	Zimbabwe	$750.36	$225.11	$714.50	31.5%
2	China	$233,519.53	$58,379.88	$188,121.89	31.0%
3	Philippines	$12,153.94	$4,253.88	$13,859.11	30.7%
4	Nicaragua	$723.25	$216.97	$783.34	27.7%
5	Mali	$572.51	$200.38	$796.90	25.1%
6	Republic Of Congo	$987.34	$375.19	$1,504.95	24.9%
7	Costa Rica	$3,229.32	$968.80	$4,364.00	22.2%
8	Zambia	$678.42	$237.45	$1,094.26	21.7%
9	Honduras	$1,674.17	$418.54	$1,935.12	21.6%
10	Belarus	$7,217.08	$1,732.10	$8,063.18	21.5%
11	Cameroon	$209.69	$80.73	$471.20	17.1%
12	Guinea	$362.88	$127.01	$769.70	16.5%
13	Ethiopia	$422.90	$126.87	$782.27	16.2%
14	Malaysia	$19,027.35	$4,947.11	$32,130.18	15.4%
15	Central African Republic	$51.35	$15.41	$105.60	14.6%
16	Cambodia	$381.97	$76.39	$550.93	13.9%
17	Togo	$117.90	$43.62	$322.54	13.5%
18	Panama	$2,702.55	$810.77	$6,020.00	13.5%
19	Tajikistan	$128.31	$32.08	$241.92	13.3%
20	Solomon Islands	$21.50	$6.45	$49.70	13.0%

Sources: The World Bank, *World Development Indicators*
Central Intelligence Agency, *The World Factbook*
Global Financial Integrity, *Illicit Financial Flows from Developing Countries*, 2002-2006

INTRODUCTION

In 2008 Global Financial Integrity (GFI) published a study estimating worldwide volumes of illicit financial flows (IFFs), which are transfers of money that are "earned through activities such as corruption, transactions involving contraband goods, criminal activities, and efforts to shelter wealth from a country's tax authorities."[1] The GFI study concluded IFFs from developing countries ranged between $859 billion and $1.06 trillion in 2006. This amounts to over ten times the value of official development aid (ODA) for the same period. The development implications for this substantial loss of capital are serious. Most prominent among these implications is significant loss of government revenue that developing countries may suffer as they cannot significantly tax illicit funds which are transferred abroad.

The loss of tax revenues due to illicit flows compounds the problem of raising public funds in many developing countries. Chronic low levels of government revenue are considered serious impediments to development for a number of low-income countries. As Burgess and Stern (1993) note "debt and money finance often prove to be unsustainable sources of revenue and in the long run there is no real substitute for taxation." Government revenue is critical to providing poverty reducing goods and services, such as support for agriculture through infrastructure in rural areas, financing education, and providing healthcare. These obstacles have been further underscored by the fiscal crises experienced by numerous developing countries over the past three decades.

Many developing country governments receive much lower tax revenues as a percentage of their total national incomes than the revenue levels enjoyed by their higher-income counterparts. A recent study by Baunsgaard and Keen (2005) estimated that tax revenues among low-income countries averaged only about 13% of their collective GDP in 2000. This was less than half the average of 36% amongst members of the Organization for Economic Cooperation and Development (OECD). Since many developing countries also suffer from weak institutional capacity and extensive informal sectors, their governments are often unable to effectively respond to tax evasion by improving collection or widening narrow tax bases. This paper will show that huge volumes of tax evasion due to illicit financial flows present a serious challenge to economic development of developing countries.

There is reason to believe that this loss of tax revenue and its implications for economic development has become more significant in recent years. The developing world currently faces

[1] See *Illicit Financial Flows from Developing Countries*, Dev Kar and Devon Cartwright-Smith, December 2008, Global Financial Integrity, Washington DC.

shrinking government revenue in the face of contracting incomes and a worldwide recession. Where profit margins are contracting, the temptation to misprice trade increases and leads to a corresponding loss of revenue for governments, exacerbates swelling budget deficits, and creates yet another major impediment to economic development. These growing problems have set the stage for this study, which attempts to quantify the tax revenue loss, on a country-by-country basis, based on estimates of illicit flows presented in the recent GFI report.

LITERATURE REVIEW

Another major study which has attempted to quantify worldwide tax revenue losses due to illicit financial flows was a 2008 Christian Aid report called *Death and taxes: the true toll of tax dodging.* This paper estimated revenue loss due to trade mispricing, which we have noted is one mechanism which drives illicit financial flows. The report projected that the loss of corporate taxes to the developing world is about US$160 billion per year. To derive this estimate, the study divided the world's developing countries into three groups: low-income, lower-middle income, and upper-middle income. The report took measures of each group's ratio of trade volume to tax revenues and applied this ratio to the estimated portion of illicit trade and the corporate tax rates by group. By coupling these ratios with Raymond Baker's (2005) estimate that about 7% of world trade is mispriced, Christian Aid estimated a rate of trade mispricing to tax revenue by group. These ratios were finally applied to each group's total tax revenues to find the total tax revenue each group lost as a result of trade mispricing.

A recently published study by Tax Justice Network, entitled *The Price of Offshore,* estimated the tax revenue loss which results from high net worth individuals (HNWI) shifting their wealth to tax havens. This study used the Merrill-Lynch/CapGemini estimate of worldwide assets held in tax havens by wealthy individuals, based on the yearly publication *The World Wealth Report.* The authors then assumed an annual return of seven to eight percent on that wealth and a tax rate of thirty percent. They concluded this is the likely return on the stock of tax evading wealth held offshore.

To derive which portion of this wealth is likely to be held by individuals from low- and middle-income countries, the study multiplied the figure by the developing world's share of worldwide GDP. This resulted in the estimate that developing countries lose about US$50 billion annually due to the use of tax havens by wealthy individuals.

This paper adopts a different approach to the issue of loss in tax revenues. The two papers discussed above used only aggregated data and statistics to broadly estimate both the income shifted abroad and the rate at which that income would have been taxed. This paper will contribute to the current literature by analyzing the tax revenue loss due to illicit flows on a country-by-country basis and presenting the estimates as a time series.

BACKGROUND AND FRAMEWORK FOR ANALYSIS

The total estimates of IFFs contained within the 2008 GFI study were based on the summation of two measures. The first was the IMF's Direction of Trade Statistics-based Trade Mispricing model, which compares partner country trade data. The second was the World Bank Residual (CED)[2] model, which estimates the gap between a country's sources and uses of funds. While the IFFs in the GFI study were composed of both of these types of flows, we will examine only the trade mispricing component to estimate the loss in tax revenues. The reason for this is that the CED model includes some portion of illicit financial flows which were earned illegally, for example through drug trade, corruption, kickbacks, and bribery. Since there cannot generally be a tax revenue loss ascribed to an illegal activity and the portion of the CED which is explained by illegal activities is not observable, we must omit a measure of tax revenue loss due to this form of IFF.

Trade mispricing is a major conduit through which profits of companies are shifted from developing countries to developed country banks and tax havens. Indeed, at least half of the US$1 trillion in annual illicit financial flows can be attributed to this conduit. Trade mispricing can occur when the underlying trade involves transactions between related parties, such as trade transactions between international subsidiaries of a large parent corporation. It can also involve transactions between unrelated parties; for example, a local company trading with an independent foreign supplier. As such, trade mispricing presents a channel through which legitimate profits are transferred abroad illegally. It is reasonable to assume domestic corporate taxes would have been payable on this money which was illegally shifted abroad.

The measure of trade mispricing in the GFI study, which includes only the re-invoiced portion, is based on the sum of two components: export underinvoicing and import overinvoicing. These are both conduits by which residents can make illegal, unrecorded transfers of profits abroad. The government of the resident shifting money overseas is often unaware of the capital movement and is therefore

[2] The acronym CED refers to Change in External Debt, which is one variant of the World Bank Residual Model used in the Kar and Cartwright-Smith paper. For more information, please see *Illicit Financial Flows from Developing Countries: 2002-2006.*

unable to tax the associated proceeds from trade or the shifting of previously-earned profits (in the form of a fake corporate loss). It is important to note that the trade mispricing model based on partner-country trade data comparisons cannot capture "same-invoice faking," in which two parties collude, perhaps by word of mouth. In this situation, the trade is mispriced within the same invoice instead of re-invoiced in official documents (Baker 34). Furthermore, in this type of mispricing, the discrepancy between the true value and the mispriced value will not show up in partner trade data and therefore cannot be captured by the model. Therefore the loss of tax revenues through same-invoicing faking is not included in our estimates. As a result of this omission, the final estimates for total revenue loss due to trade mispricing are understated to an undeterminable extent.

DATA SOURCES

DATA SOURCES

This paper uses two primary data sources to estimate corporate tax rates by country. When a range of rates are applicable—as is the case with progressive tax systems which apply higher marginal taxes to higher income levels—we select the highest rate. This is consistent with the methodology used in the Christian Aid Report (2008). The primary source for this data is the Heritage Foundation's 2009 Index of Economic Freedom, a worldwide index of a variety of economic and institutional indicators by country, which also includes a measure of the top corporate tax rates as part of its fiscal freedom index. The secondary data source is Worldwide Tax Summaries, an overview of the corporate and individual tax rates and rules in operation for 124 countries worldwide. This database was created and is maintained by PricewaterhouseCoopers LLP. In most cases, these two sources provide corporate tax rates that are either identical or are within one or two percentage points of one another (see Appendix Table 1). Countries which have a wide range of tax rates or countries which exhibit large discrepancies between sources are discussed in greater detail in the section on tax rates.

This paper uses both the normalized and non-normalized estimates of trade mispricing in the GFI paper (see Appendix Tables 14 and 15). In estimating trade mispricing, Kar and Cartwright-Smith (2008) subjected all developing countries in the model to a normalization process to filter out those countries whose mispricing estimates failed to meet certain criteria. The normalization process was carried out to present a conservative estimate of overall illicit flows from developing countries and regions.

Finally, the section on implications for development relates the tax revenue loss implied by the models to total government revenue, by country. The primary source of data on total government revenues is the World Bank's World Development Indicators. Additionally, the CIA World Fact Book

was used as a supplementary source for those countries not adequately covered by the World Development Indicators.

METHODOLOGY

To estimate tax revenue loss to developing country governments due to illicit financial flows, we employ the following model:

$$trl_i = \gamma_i(kftm_i) + \beta_i,\delta(kfced_i) + \varepsilon_i$$

In the equation above, the tax revenue loss to a country, *i*, due to trade-related illicit financial flows, *trl*, is equal to the sum of the tax revenue loss from capital flight due to trade mispricing, *kftm*, and the tax revenue loss of IFFs as measured by the CED model, *kfced*. The flows from the CED model should be multiplied by a portion, β, of IFFs which were earned legally. Since β is unobservable, however, we do not include a measure of tax revenue loss due to the CED model. The variables γ and β are the country specific corporate tax rates and individual tax rates, respectively. These rates are applied to the measures of *kftm* and *kfced* to measure the implied tax revenue loss from each of these forms of IFFs. ε is an error term which arises mainly due to measurement error.

MEASUREMENT OF TAX RATES

Since corporate tax rates are not always stable or uniform, we analyze those countries which account for the largest shares of tax revenue losses and also for those cases where the two primary data sources diverge by more than 2% (see Table 1 below). These cases of moderate divergence are relatively infrequent; out of the entire sample of developing countries, only fourteen countries exhibit such discrepancies. When such differences do arise, two supplementary sources are used to verify one of the tax rates. In a few cases there are sharp divergences between sources, which can either reflect differences in tax rates across distinct industries or changes in rates over time. Those discrepancies are discussed in detail below.

In conducting this analysis, we employ two supplementary sources—the first is Doing Business, an online database maintained by the World Bank Group, which ranks the ease of doing business in economies throughout the world and also includes a measure of each country's corporate tax rate. The second additional source is the Encyclopedia of the Nations, an online database that details profiles of 193 countries, including each country's tax rates and descriptions of corporate and individual income tax policy.

Table 1. Corporate Income Tax Rates by Country

Country	PricewaterhouseCoopers	Heritage Foundation	Doing Business	Nations Encyclopedia
Top 20 Countries by Tax Revenue Loss				
China	0.25	0.25	0.25	–
Mexico	0.28	0.28	0.28	0.32
India	0.3	**0.34**	0.34	0.35
Malaysia	0.26	**0.26**	0.26	0.28
Philippines	0.3	**0.35**	0.35	0.32
Indonesia	0.28	**0.3**	0.3	0.3
Thailand	0.3	0.3	0.3	0.3
Belarus	–	**0.24**	0.24	0.3
Costa Rica	0.3	0.3	0.3	0.3
South Africa	0.28	**0.28**	0.28	0.3
Syrian Arab Republic	**0.28**	0.28	0.35	0.45
Panama	0.3	0.3	0.3	0.3
Russia	0.2	**0.24**	0.24	0.24
Aruba	**0.28**	–	–	0.3
Nigeria	–	0.3	0.3	0.3
Colombia	**0.34**	0.33	0.34	–
Honduras	–	**0.25**	0.25	0.15
Guatemala	0.31	0.31	0.31	0.31
Egypt	0.2	0.2	0.2	–
Morocco	–	**0.35**	0.3	0.35
Countries which showed discrepancies >2%				
Bosnia & Herzegovia	**0.1**	0.3	0.1	–
Botswana	0.15	**0.25**	0.05	0.25
Brazil	0.15	**0.34**	0.25	0.1
Chile	0.35	**0.17**	0	0.17
Ghana	0.22	**0.25**	0.25	0.35
Kazakhstan	0.2	**0.3**	0.3	0.3
Lithuania	0.2	**0.15**	0.15	0.15
Moldova	0.15	0	0	**0.32**
Uzbekistan	0.35	0.1	0.1	**0.18**
Gulf Cooperation Council States				
Kingdom Of Bahrain	0.46	**0**	0	–
Kuwait	–	**0**	0	0.55
Oman	**0.3**	0.12	0.12	0.15
Qatar	**0.35**	0	0	0.35
Saudi Arabia	**0.2**	0.03	0.03	0.45
United Arab Emirates	0.2	**0**	0	0

For those countries which show discrepancies in tax rates by source, the rate which was used is shown in bold.

Source: PricewaterhouseCoopers, *Worldwide Tax Summaries*; Heritage Foundation, *2009 Index of Economic Freedom*; The World Bank Group, *Doing Business; Nations Encyclopedia, Worldwide Taxation*

A few countries exhibit changes in tax rates over the period of our study or unconventional corporate tax policies. In Lithuania, for example, the corporate income tax rate was reduced from 24% to 15% in January of 2002. Since our study seeks to estimate the tax revenue losses due to illicit flows over the period 2002 to 2006, we use the more recent tax rate. In the case of Moldova, the corporate tax rate was eliminated in 2008, prior to which the rates ranged from 15-40% with a standard rate of 32%. We apply a rate of 32% to Moldova since the elimination of the tax in 2008 falls outside our period of study. Brazil's standard corporate tax rate is 15%, but a surtax of 10% and a 9% social contribution on net profit paid by most industries bring the effective rate to 34%, which is the figure we use. In Russia, the standard corporate tax rate is 24%; however, Russian states are allowed to reduce their corporate tax rate to as low as 12%, thereby lowering the average corporate rate to 20%, which is the figure we use. In Uzbekistan, corporate tax rates range from 10% to as high as 60%, with a standard rate of 18%, which is the figure we apply.

Members of the Gulf Cooperation Council[2] (GCC) are unique cases which exhibit the widest spectrums of tax rates, since many of these countries either tax foreigners at a much higher rate than residents or apply special tax treatments to oil revenues. In the case of discrepancies between tax rates for resident versus non-resident corporations, we employ the foreign rate. There are two reasons for this. First, the non-resident rate is the one that is primarily cited by PricewaterhouseCoopers, a globally respected accounting firm, which maintains a database on worldwide tax rates. Second, the majority of companies in these oil-exporting countries are foreign and, therefore, in the event these companies are mispricing trade, they would be evading the foreign tax rate.

There are several oil-exporting countries that have significant differential in corporate tax rates according to residency or industry. For example, most local companies in Bahrain are not subject to a corporate tax, but a 46% rate is levied on the net profits of oil companies based in the country. Similarly, the United Arab Emirates (UAE) only levies corporate taxes on oil companies and branches of foreign companies. Nevertheless, tax revenue loss estimates for these countries were set to zero because, irrespective of the tax rates, they do not indicate illicit financial flows through trade mispricing according to the GFI report.

[2] There are six members of the Gulf Cooperation Council: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

The remaining GCC states apply disparate tax rates to foreign versus domestically-owned corporations. All Omani-registered companies, regardless of percentage of foreign ownership, are subject to a maximum rate of 12% tax on profits. Both foreign companies and branches of foreign companies based in Oman are, however, taxed at a maximum of 30%. We use the higher foreign rate for the aforementioned reasons. Similarly, Qatar applies a 35% rate to foreign citizens and levies no corporate tax rate on domestically owned businesses. We therefore use the foreign rate of 35%. In Kuwait, the final GCC state, profits of foreign corporations are taxed with a top marginal rate of 55%, but individual or local company incomes are tax exempt. We use the foreign rate of 55% in our estimation. In Saudi Arabia, foreign companies are subject to an average 20% corporate tax rate. Domestic corporations, as well as residents from other GCC states, in this state are not subject to any income or corporate tax, but they do pay a small religious tax called the Zakat, mandated by Islamic law. Consistent with the methodology outlined above, we apply the foreign tax rate to Saudi Arabia.

EMPIRICAL AND DATA LIMITATIONS

The model used in this paper to estimate tax revenue losses is subject to certain limitations which may result in an understatement or overstatement of the losses. First, we make the assumption that corporate profits would have been taxed had they been declared to the government instead of transferred abroad illegally. This is a fairly safe assumption when the model is applied to illicit financial flows through trade mispricing, since profits from these types of IFFs are usually sent abroad for the purpose of tax evasion. This assumption would have been more tenuous in the case of the World Bank Residual (CED) model, since the CED captures many IFFs which are earned through illegal activities. While the CED measure does capture some legal activities, which may have gone untaxed because the profits were shifted abroad, it is impossible to calculate which portion of income shifting was earned through these legal activities. For this reason, we must omit calculations of tax revenue loss due to the CED, an omission which will likely lead to an understatement of the total tax revenue loss due to illicit flows.

Second, the model only seeks to capture the loss of corporate taxes and hence does not attempt to estimate the loss of other related revenues such as customs duties, tariffs, or value added taxes. This presents two problems. First, the exclusion of customs duties and value added taxes on exports will understate our estimates of revenue losses because individuals and companies also engage in trade mispricing in order to avoid such levies. Export duties are not a common part of worldwide taxation, but they are still levied on mineral, agricultural, and petroleum products. In particular, these revenues are used prominently in the Global South where resource-rich countries depend on these duties for much of their revenue. The underinvoicing of exports would cause a tax revenue loss of these types of duties, which may impact some developing countries included in our sample.

By ignoring tariffs, or import taxes, this paper could be introducing an upward bias to the implied tax revenue loss. Often importers will shift profits abroad by overinvoicing imports, which means that although the importer is paying a lower income tax by shifting profits abroad, he may also be paying a higher import duty payable on the overinvoiced imports. The importer's net position would therefore need to be calculated on a case by case basis. Since it is unlikely an importer would engage in this practice over the long term if it represented a substantial net loss to his bottom line, we conclude the reduction in income tax revenue more than compensates for the higher customs duties importers would have paid as a result of the overinvoicing of imports.

There are also limitations within the corporate tax rate, even though the rates are country-specific and each rate was verified using four different sources. The main limitation posed in this paper is the assumption of one flat corporate tax rate for each country. As discussed in the section on methodology, many countries have a range of corporate tax rates for different industries and sizes of

businesses. We cannot apply these different rates by industry because we do not have the necessary tax data by the type and quantity of each commodity that has been mispriced. Deviations of the flat corporate tax rate from the actual tax rates applicable by industry and commodity will lead to both understatement and overstatement of estimated revenue losses.

There may be additional biases introduced if a particular country has subsidized exchange rates for "essential" imports. In this case, an importer over-invoicing imports would be awarded an extra portion of his allocated foreign exchange, which would result in an increased loss to the government. This would not have occurred in the absence of mispricing and therefore understates government losses provided by a simple corporate tax model.

Finally, because this paper bases its measure of illicit financial flows on the GFI study, it may be underestimating tax revenue loss because of the unobserved components of IFFs which are not included in the GFI estimate. For example, if an individual carries a suitcase full of cash or uses a hawala swap arrangement to send income abroad, it would not be captured by the GFI measurement of IFFs. If illicit financial flows are understated, our model will be biased toward a smaller figure. In addition, GFI's estimate of trade mispricing is likely to be understated because the models used cannot capture "same-invoice faking," which was discussed in the background and framework section. This type of trade mispricing will not be reflected in discrepancies between partner trade data and therefore would understate our final estimates. It should be noted that the previously discussed Christian Aid report included approximate revenue losses due to such practices and therefore our estimates are likely to be smaller than those obtained by Christian Aid.

EMPIRICAL RESULTS

Table 2 below shows the total tax revenue loss which can be attributed to trade mispricing, reported both from the normalized and non-normalized estimates of IFFs. This table indicates that developing countries lost somewhere between US$98 billion and US$107 billion per year in tax revenues between 2002 and 2006. The difference between the normalized and non-normalized figures can be attributed to the omission of fifty countries. In the 2008 GFI study these countries are included in the non-normalized estimate of trade mispricing but not in the normalized estimate, since they do not pass the normalization filters which apply conditions on the outflows to prevent overestimation.

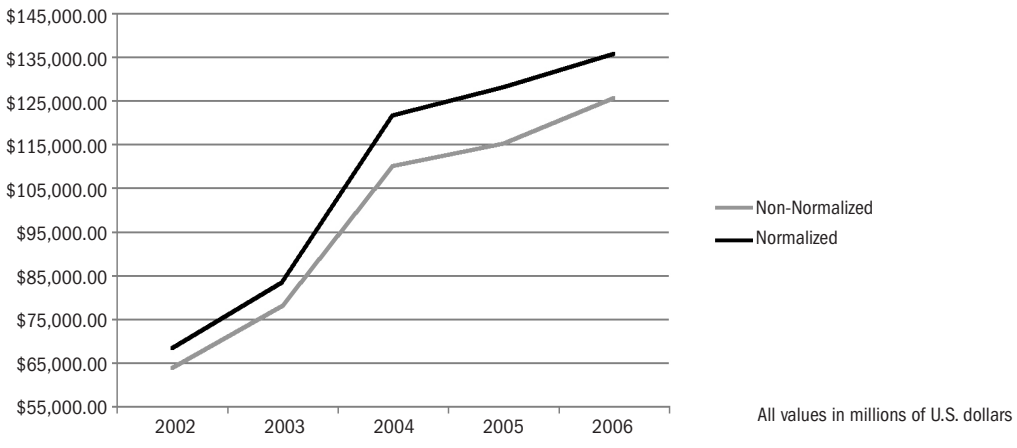
Table 2. Tax Revenue Loss to Developing Countries due to Trade Mispricing (in millions of U.S. dollars)

	Normalized	Non-Normalized
2002	$63,698.16	$68,251.91
2003	$77,982.82	$83,336.40
2004	$109,963.04	$121,533.40
2005	$114,978.28	$127,910.63
2006	$125,415.02	$135,647.67
Average	**$98,407.46**	**$107,336.00**

These findings are lower than, but still consistent with, the estimate of the Christian Aid Report, which was $160 billion per year. As noted earlier, the Christian Aid figure is higher because it includes an estimate of "same-invoice faking," which is not captured by the model used in this paper.

Chart 1 below shows the time-series trend in tax revenue loss over the period 2002-2006. As shown in the GFI study, the estimate of illicit financial flows, and specifically trade mispricing, exhibited significant gains in those five years. It is therefore not surprising that we see significant increases in tax revenue losses to developing countries as well. In the last year of this study, 2006, the implied tax revenue loss of worldwide trade mispricing was in the range of US$125 and US$135 billion. This represents a near doubling from the 2002 range of US$64-$68 billion.

Chart 1. Tax Revenue Loss to Developing Countries due to Trade Mispricing, 2002-2006



Regionally, the pattern of tax revenue losses follows the model of trade mispricing in the 2008 GFI study. As shown in Table 3, Asia exhibits the largest tax revenue loss, followed by Europe and the Western Hemisphere. Africa and MENA show the smallest losses. There is strong reason to believe these figures would be much higher if there were complete data for the latter two regions. As it currently stands, nearly 30% of African and MENA countries have missing trade data, which results in a severe understatement of illicit financial flows from these regions. As a result, our estimates of tax revenue losses for these regions are likely to be significantly understated.

In Table 3 these tax revenue losses are also taken as a percent of collective, regional government revenue, with only those countries included in the aggregate totals which have complete data. This data is collected from the World Bank's World Development Indicators and government revenue includes all forms of income, but excludes grants. If these figures are ranked by magnitude, Asia still holds the largest losses—with a 15.9% tax revenue loss compared to total government revenue. The second largest region is the Western Hemisphere, with 4% of government revenue lost, followed closely by Africa with a 3.4% loss. These statistics will also be discussed on a country-by-country basis in the section on implications for development.

Table 3. Regional Tax Revenue Loss, Average 2002-2006 (in millions of U.S. dollars, unless otherwise noted)

Region	Normalized Tax Revenue Loss	Non-Normalized Tax Revenue Loss	Government Revenue	Percent Loss
Africa	$1,621.01	$4,037.75	$118,706.94	3.40%
Asia	$78,616.98	$80,597.07	$506,914.42	15.90%
Europe	$2,344.11	$5,492.30	$692,716.50	0.79%
Middle East and North Africa	$1,182.02	$4,781.54	$635,674.66	0.75%
Western Hemisphere	$15,570.78	$17,951.83	$448,769.48	4.00%

Source: The World Bank, *World Development Indicators*

Table 4 shows the twenty developing countries that lost the greatest quantities of tax revenue due to trade mispricing between 2002 and 2006. Both the estimates for trade mispricing and tax revenue losses represent the averages of those figures over the five year period. The corporate income tax rate that was used to estimate the tax revenue loss is also shown. For a list of the complete dataset, which includes each developing country's loss of tax revenue through both normalized and non-normalized trade mispricing, see the Appendix Tables 2 and 3.

Table 4. Countries with Largest Tax Revenue Loss, Average 2002-2006 (in millions of U.S. dollars)

Country	Yearly Average Trade Mispricing (Non-Normalized)	Corporate Income Tax Rate	Yearly Average Tax Revenue Loss
China	$233,519.53	25%	$58,379.88
Mexico	$41,680.41	28%	$11,670.52
India	$22,726.33	34%	$7,724.68
Malaysia	$19,027.35	26%	$4,947.11
Philippines	$12,153.94	35%	$4,253.88
Indonesia	$10,361.35	30%	$3,108.40
Qatar	$6,862.54	35%	$2,401.89
Belarus	$7,217.08	24%	$1,732.10
Thailand	$4,606.68	30%	$1,382.01
Russia	$6,662.93	20%	$1,332.59
South Africa	$3,872.20	28%	$1,084.22
Nigeria	$3,401.23	30%	$1,020.37
Costa Rica	$3,229.32	30%	$968.80
Syrian Arab Republic	$2,955.91	28%	$827.66
Panama	$2,702.55	30%	$810.77
Aruba	$2,245.76	28%	$628.81
Brazil	$1,598.44	34%	$543.47
Republic Of Azerbaijan	$2,193.76	22%	$482.63
Colombia	$1,295.68	33%	$427.57
Czech Republic	$2,022.91	21%	$424.81

Source: Global Financial Integrity, *Illicit Financial Flows from Developing Countries*
Heritage Foundation, *2009 Index of Economic Freedom*, PricewaterhouseCoopers, *Worldwide Tax Summaries*

IMPLICATIONS FOR TAX REVENUE

In order to contextualize these numbers, we compare the average, non-normalized, tax revenue losses to average government revenues, by country. We use the World Bank definition of tax revenue, which includes "all revenue from taxes and non-repayable receipts (other than grants) from the sale of land, intangible assets, government stocks or fixed capital assets, or from capital transfers from nongovernmental sources. It also includes inheritance taxes and non-recurrent levies on capital" (World Development Indicators). Tax revenue figures are calculated on an exchange rate basis.

Table 5. Countries with Largest Tax Revenue Loss in Percent of Government Revenue, Average 2002-2006 (in millions of U.S. dollars)

	Country	Average Non-Normalized Trade Mispricing	Average Tax Revenue Loss Non-Normalized	Average Government Revenue (Excluding Grants)	Loss of Tax Revenue (In Percent of Government Revenue)
1	Zimbabwe	$750.36	$225.11	$714.50	31.5%
2	China	$233,519.53	$58,379.88	$188,121.89	31.0%
3	Philippines	$12,153.94	$4,253.88	$13,859.11	30.7%
4	Nicaragua	$723.25	$216.97	$783.34	27.7%
5	Mali	$572.51	$200.38	$796.90	25.1%
6	Republic Of Congo	$987.34	$375.19	$1,504.95	24.9%
7	Costa Rica	$3,229.32	$968.80	$4,364.00	22.2%
8	Zambia	$678.42	$237.45	$1,094.26	21.7%
9	Honduras	$1,674.17	$418.54	$1,935.12	21.6%
10	Belarus	$7,217.08	$1,732.10	$8,063.18	21.5%
11	Cameroon	$209.69	$80.73	$471.20	17.1%
12	Guinea	$362.88	$127.01	$769.70	16.5%
13	Ethiopia	$422.90	$126.87	$782.27	16.2%
14	Malaysia	$19,027.35	$4,947.11	$32,130.18	15.4%
15	Central African Republic	$51.35	$15.41	$105.60	14.6%
16	Cambodia	$381.97	$76.39	$550.93	13.9%
17	Togo	$117.90	$43.62	$322.54	13.5%
18	Panama	$2,702.55	$810.77	$6,020.00	13.5%
19	Tajikistan	$128.31	$32.08	$241.92	13.3%
20	Solomon Islands	$21.50	$6.45	$49.70	13.0%

Sources: The World Bank, *World Development Indicators*
Central Intelligence Agency, *The World Factbook*
Global Financial Integrity, *Illicit Financial Flows from Developing Countries, 2002-2006*

Table 5 shows the twenty countries with the largest tax revenue loss as a percent of total government revenue. In this comparison, we use average tax revenue loss and average government revenue between 2002 and 2006 (for years which data are available) to reduce errors associated with using estimates from only one year. A list of the complete data for average tax revenue losses as a percent of government revenue is shown in Appendix Table 4.

The average government revenue for the entire developing world (excluding countries for which data is missing) over the period 2002 to 2006 was US$2.41 trillion. Assuming the average tax revenue loss due to IFFs is US$106 billion, as determined by the model set forth herein, we calculate the developing world lost approximately an annual 4.4% of its government revenue due to trade mispricing (occurring through re-invoicing) between 2002 and 2006. This estimate is

significantly understated due to a number of reasons, including: (i) missing data for some countries many of which are in Africa (ii) economic models cannot fully capture illicit flows and (iii) our corporate tax model does not estimate revenue losses due to the evasion of customs duties or value-added taxes.

CONCLUSIONS

Using a model which includes country-specific corporate tax rates and measures of trade mispricing, we find that for the period 2002-2006, the average annual tax revenue loss due to illicit financial flows ranged between US$98 billion to US$106 billion. This represents an annual loss of about 4.4% of the developing world's government revenue. Regionally, we find that Asia lost the most government revenue due to this practice, followed closely by developing Europe and the Western Hemisphere. If these regions are ranked by loss as a percent of total government revenue, however, we find that Asia still lost the highest amount, but the Western Hemisphere was ranked second, followed closely by Africa.

When we analyzed the tax revenue losses over time we found that there was a significant increase over the five years. This arose due to the underlying increase in trade mispricing worldwide, given the 2008 GFI study's finding that worldwide trade mispricing increased appreciably over those five years. In fact, this increase was so sharp that by 2006 the developing world's tax revenue loss due to trade mispricing likely ranged between US$125 and US$132 billion, about US$30 billion more than the five year average.

Solutions to this problem should be approached in the context of broader macroeconomic reforms. There is no "quick fix" to tax evasion through trade mispricing. In order to effectively confront the problem of illicit outflows, low and middle income countries must implement macroeconomic reforms by exercising fiscal responsibility, closing budget deficits and keeping inflation low. These economic policies go hand in hand with governance reform—through the development of institutions, strengthening rule of law and confronting corruption.

Yet the burden of this challenge cannot be placed exclusively on the shoulders of the developing world. As Raymond Baker, director of Global Financial Integrity, has noted "thousands of companies provide helpful mispricing services to tens of thousands of their overseas customers in hundreds of thousands of transactions moving billions of dollars into Western accounts." High income countries have an opportunity—and even an obligation—to change the conditions and mechanisms which facilitate these illicit financial flows and severely hinder development. After all, there are two sides to this equation: an outflow, but also a corresponding inflow, much of which is channeled into the richest countries in the world.

References

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

Baunsgaard, T. and M. Keen. 2005. *Tax revenue and (or?) trade liberalization*. International

Monetary Fund: Working Paper WP/05/112.

Burgess, R. and N. Stern. 1993. *Taxation and development. Journal of Economic Literature, XXXI,* 762-830.

Central Intelligence Agency. *World Factbook.* Available Online. Accessed: 27 October 2009.

Christian Aid. May 2008. *Death and taxes: the true toll of tax dodging*. Christian Aid Report.

Cobham, Alex. 2005. *Tax evasion, tax avoidance, and development finance.* University of Oxford: QEH Working Paper Series 129.

Encyclopedia of the Nations. Available Online. Accessed: 25 October 2009.

International Monetary Fund. *Government Financial Statistics.* Available online. Accessed: 20 October 2009.

Kar, Dev and Devon Cartwright-Smith. December 2008. *Illicit Financial Flows from Developing Countries:* 2002-2006. Washington: Global Financial Integrity..

Tax Justice Network. 2005. *The Price of Offshore.*

Mahdavi, Saeid. 2008. *The level and composition of tax revenue in developing countries: Evidence from unbalanced panel data.* International Review of Economics and Finance, 17, 607-617.

Official Norwegian Reports. 2008. *Tax havens and development.* Oslo: Norwegian Ministry of Foreign Affairs: 19.

World Bank. *World Development Indicators.* Available Online. Accessed: 8 October 2009.

World Bank Group. *Doing Business.* Available Online. Accessed: 25 October 2009.

APPENDIX 1: COMPARISON OF CORPORATE INCOME TAX RATES

Country	Pricewater houseCoopers	Heritage Foundation	Country	Pricewater houseCoopers	Heritage Foundation
Afghanistan, I.R. Of	-	0.20	Dominica	-	0.30
Albania	0.10	0.10	Dominican Republic	0.25	0.25
Algeria	-	0.25	Ecuador	0.25	0.25
Angola	-	0.35	Egypt	0.20	0.20
Antigua & Barbuda	0.25	-	El Salvador	0.25	0.25
Argentina	0.35	0.35	Equatorial Guinea	-	0.35
Armenia	0.20	0.20	Eritrea	-	0.30
Aruba	0.28	-	Estonia	0.21	0.21
Azerbaijan, Rep. Of	0.22	0.22	Ethiopia	-	0.30
Bahamas, The	-	0.00	Fiji	0.30	0.31
Bahrain, Kingdom Of	0.46	0.00	Gabon	-	0.35
Bangladesh	-	0.45	Gambia, The	-	0.35
Barbados	-	0.25	Georgia	0.15	0.15
Belarus	-	0.24	Ghana	0.22	0.25
Belize	-	0.25	Grenada	-	-
Benin	-	0.38	Guatemala	0.31	0.31
Bhutan	-	0.30	Guinea	-	0.35
Bolivia	0.25	0.25	Guinea-Bissau	-	0.25
Bosnia & Herzegovina	0.10	0.30	Guyana	-	0.35
Botswana	0.15	0.25	Haiti	-	0.35
Brazil	0.15	0.34	Honduras	-	0.25
Brunei Darussalam	-	-	Hungary	0.16	0.16
Bulgaria	0.10	0.10	India	0.30	0.34
Burkina Faso	-	0.30	Indonesia	0.28	0.30
Burundi	-	0.35	Iran, I.R. Of	0.25	0.25
Cambodia	0.20	0.20	Iraq	-	0.15
Cameroon	-	0.39	Israel	0.26	0.27
Cape Verde	-	0.30	Jamaica	-	0.33
Central African Rep.	-	0.30	Jordan	-	0.25
Chad	-	0.40	Kazakhstan	0.20	0.30
Chile	0.35	0.17	Kenya	-	0.30
China,P.R.: Mainland	0.25	0.25	Kiribati	-	0.35
Colombia	0.34	0.33	Kuwait	-	0.00
Comoros	-	0.50	Kyrgyz Republic	0.10	0.10
Congo, Dem. Rep. Of	0.40	0.40	Lao People's Dem.Rep	-	0.35
Congo, Republic Of	-	0.38	Latvia	0.15	0.15
Costa Rica	0.30	0.30	Lebanon	0.15	0.15
Côte D'Ivoire	-	0.25	Lesotho	-	0.25
Croatia	-	0.20	Liberia	-	0.35
Cyprus	0.10	0.10	Libya	-	0.40
Czech Republic	0.20	0.21	Lithuania	0.20	0.15
Djibouti	-	0.25	Macedonia, Fyr	0.10	0.10

continued

Appendix 1 continued

Country	Pricewater houseCoopers	Heritage Foundation
Madagascar	-	0.30
Malawi	-	0.30
Malaysia	0.26	0.26
Maldives	-	0.00
Mali	-	0.35
Malta	0.35	0.35
Marshall Islands	-	-
Mauritania	-	0.25
Mauritius	0.15	0.15
Mexico	0.28	0.28
Micronesia	-	-
Moldova	0.15	0.00
Mongolia	0.25	0.25
Montenegro	0.09	0.09
Morocco	-	0.35
Mozambique	0.32	0.32
Myanmar	-	-
Namibia	-	0.35
Nepal	-	0.25
Nicaragua	0.30	0.30
Niger	-	0.35
Nigeria	-	0.30
Oman	0.30	0.12
Pakistan	0.35	0.35
Palau	-	-
Panama	0.30	0.30
Papua New Guinea	-	0.30
Paraguay	0.10	0.10
Peru	0.30	0.30
Philippines	0.30	0.35
Poland	0.19	0.19
Qatar	0.35	0.00
Romania	0.16	0.16
Russia	0.20	-
Rwanda	-	0.30
Samoa	-	0.27
São Tomé & Príncipe	-	-
Saudi Arabia	0.20	0.03
Senegal	-	0.25
Serbia	0.10	0.10
Seychelles	-	0.40
Sierra Leone	-	0.30
Slovak Republic	0.19	0.19
Slovenia	0.21	0.22
Solomon Islands	-	0.30
Somalia	-	-
South Africa	0.28	0.28
Sri Lanka	0.35	0.35
St. Kitts	0.35	-
St. Lucia	0.30	-
St. Vincent & Grens.	-	0.40
Sudan	-	0.35
Suriname	-	0.36
Swaziland	0.30	0.30
Syrian Arab Republic	0.28	0.28
Tajikistan	0.25	0.25
Tanzania	0.30	0.30
Thailand	0.30	0.30
Timor-Leste	-	0.10
Togo	-	0.37
Tonga	-	0.25
Trinidad & Tobago	0.25	0.25
Tunisia	-	0.30
Turkey	0.20	0.20
Turkmenistan	-	0.20
Uganda	0.30	0.30
Ukraine	0.25	0.25
United Arab Emirates	0.20	0.00
Uruguay	0.25	-
Uzbekistan	0.35	0.10
Vanuatu	-	0.00
Venezuela, Rep. Bol.	0.34	0.34
Vietnam	0.28	0.28
Yemen, Republic Of	-	0.35
Zambia	-	0.35
Zimbabwe	-	0.30

Source: PricewaterhouseCoopers, *Worldwide Tax Summaries*

Heritage Foundation, *2009 Index of Economic Freedom*

APPENDIX 2: NON-NORMALIZED TAX REVENUE LOSS

(Values in millions of U.S. dollars)

Country	2002	2003	2004	2005	2006	Total
Afghanistan, I.R. Of	0.10	0.15	2.18	0.25	0.18	2.85
Albania	0.00	0.33	0.89	7.67	6.63	15.52
Algeria	198.27	6.00	29.35	11.10	9.37	254.08
Angola	0.20	0.33	58.76	0.11	0.11	59.49
Antigua & Barbuda	0.00	0.00	0.00	0.00	0.00	0.00
Argentina	208.82	0.00	506.40	273.17	0.00	988.40
Armenia	34.04	49.38	20.99	63.15	36.12	203.68
Aruba	224.83	334.67	606.13	996.84	981.59	3,144.06
Azerbaijan, Rep. Of	0.00	0.00	0.00	0.00	482.63	482.63
Bahamas, The	0.00	0.00	0.00	0.00	0.00	0.00
Bahrain, Kingdom Of	0.00	0.00	0.00	0.00	0.00	0.00
Bangladesh	180.26	364.45	413.92	219.14	0.00	1,177.77
Barbados	71.79	80.22	86.91	131.57	12.91	383.39
Belarus	0.00	0.00	2,545.44	396.19	2,254.67	5,196.30
Belize	0.08	0.40	0.40	0.26	0.24	1.38
Benin	0.00	0.00	20.44	14.32	14.14	48.90
Bhutan	0.00	0.00	0.00	0.00	0.00	0.00
Bolivia	53.06	55.54	4.24	23.32	2.89	139.05
Bosnia & Herzegovina	0.00	0.03	2.67	1.42	31.26	35.38
Botswana	0.00	0.00	0.00	0.00	0.00	0.00
Brazil	0.00	167.90	355.05	363.34	72.78	959.06
Brunei Darussalam	0.00	0.00	0.00	0.00	0.00	0.00
Bulgaria	44.03	67.37	43.83	51.96	0.00	207.19
Burkina Faso	9.84	13.47	17.65	20.14	24.43	85.52
Burundi	2.25	0.92	0.00	17.59	41.99	62.76
Cambodia	55.85	65.31	80.47	79.09	101.25	381.97
Cameroon	42.95	118.51	0.00	0.00	0.00	161.46
Cape Verde	4.79	3.88	5.10	6.13	7.37	27.28
Central African Rep.	9.45	11.93	16.11	17.72	21.81	77.03
Chad	0.02	0.06	0.00	0.00	0.01	0.09
Chile	177.52	186.58	234.13	225.96	0.00	824.18
China,P.R.: Mainland	38,610.42	46,187.25	63,314.81	70,525.06	73,261.86	291,899.41
Colombia	309.10	533.38	709.71	526.66	59.02	2,137.87
Comoros	0.91	0.97	1.33	1.60	1.92	6.73
Congo, Dem. Rep. Of	1.68	1.56	1.48	3.04	0.00	7.76
Congo, Republic Of	0.00	348.94	1,124.23	13.08	14.51	1,500.76
Costa Rica	680.08	1,025.04	1,384.45	1,722.91	31.49	4,843.98
Côte D'Ivoire	0.00	0.00	0.00	0.00	0.00	0.00
Croatia	30.89	92.65	37.76	2.73	0.00	164.03
Cyprus	35.99	53.74	47.76	29.90	215.44	382.82
Czech Republic	350.63	572.49	351.30	0.00	0.00	1,274.43
Djibouti	6.52	7.94	9.62	10.53	12.42	47.04

continued

Appendix 2 continued

Country	2002	2003	2004	2005	2006	Total
Dominica	0.38	0.43	0.00	0.58	0.60	2.00
Dominican Republic	1.47	0.98	0.00	1.28	1.53	5.26
Ecuador	74.92	6.40	204.00	282.56	119.55	687.42
Egypt	211.87	268.09	350.23	417.96	523.65	1,771.80
El Salvador	137.53	142.27	191.86	192.77	123.07	787.50
Equatorial Guinea	0.11	1.43	5.96	0.06	0.00	7.56
Eritrea	0.00	0.00	0.00	0.00	0.00	0.00
Estonia	0.00	0.00	128.03	0.00	0.00	128.03
Ethiopia	92.32	26.66	14.64	232.85	267.88	634.35
Fiji	2.58	3.26	4.19	4.87	6.02	20.91
Gabon	8.27	10.03	12.36	14.17	16.39	61.22
Gambia, The	0.70	0.97	1.04	1.35	1.79	5.85
Georgia	36.35	54.98	66.71	59.17	136.66	353.87
Ghana	7.04	9.03	19.75	13.19	16.30	65.31
Grenada	0.00	0.00	0.00	0.00	0.00	0.00
Guatemala	431.79	395.99	431.40	474.90	106.46	1,840.54
Guinea	0.65	56.36	144.56	175.28	258.20	635.05
Guinea-Bissau	2.29	2.88	3.94	4.29	5.33	18.73
Guyana	0.00	0.32	0.00	0.00	0.00	0.32
Haiti	0.00	0.00	0.00	0.00	0.00	0.00
Honduras	685.76	690.67	703.93	5.55	6.80	2,092.72
Hungary	0.00	0.00	0.00	0.00	0.00	0.00
India	2,829.81	3,386.23	7,876.40	9,351.46	15,179.50	38,623.40
Indonesia	354.51	3,542.94	4,396.47	3,397.08	3,851.02	15,542.02
Iran, I.R. Of	69.42	21.46	15.87	34.14	39.99	180.87
Iraq	0.00	0.00	0.57	0.00	0.00	0.57
Israel	168.30	134.13	0.00	0.00	0.00	302.42
Jamaica	97.89	142.07	139.21	161.54	63.12	603.83
Jordan	0.00	0.00	43.59	0.00	0.00	43.59
Kazakhstan	311.14	90.87	0.00	16.47	17.80	436.28
Kenya	0.00	36.98	113.50	19.46	24.26	194.20
Kiribati	0.00	0.00	0.00	0.00	0.00	0.00
Kuwait	0.00	0.00	0.00	0.00	0.00	0.00
Kyrgyz Republic	0.00	0.00	0.00	1.55	0.00	1.55
Lao People's Dem.Rep	0.00	0.00	0.00	0.00	0.00	0.00
Latvia	100.24	114.96	178.35	112.92	118.85	625.31
Lebanon	14.44	18.42	24.13	27.60	33.92	118.52
Lesotho	0.00	0.00	0.00	0.00	0.00	0.00
Liberia	0.19	0.57	2.09	0.93	1.16	4.94
Libya	7.04	16.64	6.77	18.62	20.48	69.56
Lithuania	0.00	0.00	0.00	0.00	0.00	0.00
Macedonia, Fyr	16.42	24.54	37.57	47.07	16.64	142.24

Appendix 2 continued

Country	2002	2003	2004	2005	2006	Total
Madagascar	89.76	64.35	48.34	60.10	76.21	338.75
Malawi	0.02	0.19	0.52	2.26	0.71	3.70
Malaysia	3,084.11	4,554.16	4,919.67	5,427.25	5,799.00	23,784.19
Maldives	0.00	0.00	0.00	0.00	0.00	0.00
Mali	160.35	179.14	201.57	218.15	242.68	1,001.89
Malta	47.81	104.92	138.82	235.78	296.75	824.08
Marshall Islands	0.00	0.00	0.00	0.00	0.00	0.00
Mauritania	15.59	19.72	26.08	29.42	36.35	127.16
Mauritius	2.30	17.12	2.66	0.00	17.89	39.97
Mexico	11,203.76	10,444.89	11,389.38	12,308.35	13,006.20	58,352.58
Micronesia	0.00	0.00	0.00	0.00	0.00	0.00
Moldova	34.05	71.18	106.62	82.29	0.00	294.14
Mongolia	0.00	0.00	0.00	0.00	43.49	43.49
Montenegro	0.00	0.00	0.00	0.00	0.00	0.00
Morocco	63.73	111.07	257.48	1,205.55	85.41	1,723.24
Mozambique	61.13	1.03	0.00	0.00	136.79	198.95
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00
Namibia	0.00	0.00	0.00	0.00	0.00	0.00
Nepal	114.18	88.95	105.50	124.68	59.74	493.07
Nicaragua	132.39	155.59	191.40	275.43	330.06	1,084.87
Niger	0.00	0.00	31.08	0.18	0.26	31.52
Nigeria	0.00	0.00	797.83	1,012.71	1,250.57	3,061.11
Oman	16.05	37.73	0.00	0.00	0.00	53.78
Pakistan	0.00	0.00	0.00	0.00	248.13	248.13
Palau	0.00	0.00	0.00	0.00	0.00	0.00
Panama	625.25	682.57	714.73	970.63	1,060.64	4,053.83
Papua New Guinea	4.36	5.54	6.65	8.31	10.27	35.13
Paraguay	30.59	15.68	0.00	2.54	190.19	239.00
Peru	212.55	281.91	252.81	361.14	269.86	1,378.28
Philippines	2,486.83	3,598.06	4,196.06	5,483.26	5,505.18	21,269.39
Poland	52.15	9.03	112.13	0.00	0.00	173.31
Qatar	0.00	0.00	0.00	0.00	0.00	0.00
Romania	0.00	0.00	0.00	0.00	0.00	0.00
Russia	0.00	559.43	3,222.26	0.00	216.07	3,997.76
Rwanda	18.88	23.89	31.18	35.81	47.41	157.16
Samoa	0.00	0.51	0.49	84.22	1.06	86.28
São Tomé & Príncipe	0.00	0.00	0.00	0.00	0.00	0.00
Saudi Arabia	0.00	0.00	0.00	29.11	15.32	44.43
Senegal	0.00	0.00	0.00	2.35	0.00	2.35
Serbia	0.00	0.00	0.00	0.00	0.00	0.00
Seychelles	82.12	59.73	22.03	24.84	30.36	219.08
Sierra Leone	4.19	5.27	6.61	7.93	9.72	33.72

continued

Appendix 2 continued

Country	2002	2003	2004	2005	2006	Total
Slovak Republic	181.55	52.79	65.30	0.00	0.00	299.63
Slovenia	0.00	0.00	9.61	0.00	0.00	9.61
Solomon Islands	5.21	5.78	6.41	7.04	7.80	32.24
Somalia	0.00	0.00	0.00	0.00	0.00	0.00
South Africa	268.20	0.00	859.85	1,309.83	1,899.00	4,336.87
Sri Lanka	0.00	0.00	0.00	0.00	0.00	0.00
St. Kitts	1.07	1.45	1.36	1.54	1.69	7.12
St. Lucia	0.85	0.90	1.24	1.33	1.57	5.89
St. Vincent & Grens.	67.89	61.25	111.63	119.60	0.38	360.75
Sudan	0.00	0.00	15.00	54.46	24.90	94.36
Suriname	0.01	9.26	0.30	0.01	0.08	9.66
Swaziland	0.00	0.00	0.00	0.00	0.00	0.00
Syrian Arab Republic	315.11	398.19	3,422.93	0.61	1.45	4,138.28
Tajikistan	42.11	29.23	43.27	13.69	0.00	128.31
Tanzania	0.00	33.04	40.58	24.43	0.00	98.05
Thailand	446.56	662.20	1,170.56	2,573.50	2,057.20	6,910.03
Timor-Leste	0.00	0.00	0.00	0.00	0.00	0.00
Togo	26.61	85.68	26.84	64.41	14.57	218.12
Tonga	0.00	0.03	0.91	0.00	0.00	0.95
Trinidad & Tobago	273.76	1.26	1.45	1.91	2.68	281.07
Tunisia	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	360.26	411.40	0.00	379.13	72.14	1,222.93
Turkmenistan	136.94	119.89	0.39	0.00	0.00	257.22
Uganda	1.00	40.50	4.24	5.82	7.13	58.68
Ukraine	0.00	0.00	0.00	0.00	6.99	6.99
United Arab Emirates	0.00	0.00	0.00	0.00	0.00	0.00
Uruguay	5.64	103.48	95.77	105.53	8.79	319.20
Uzbekistan	0.01	0.02	0.00	0.02	0.05	0.11
Vanuatu	0.00	0.00	0.00	0.00	0.00	0.00
Venezuela, Rep. Bol.	155.84	0.00	710.88	335.41	29.76	1,231.89
Vietnam	0.00	0.00	0.00	0.00	0.00	0.00
Yemen, Republic Of	0.00	11.46	0.00	380.46	0.00	391.92
Zambia	0.00	135.85	194.37	451.09	168.48	949.79
Zimbabwe	196.51	0.00	89.74	96.29	517.90	900.44

APPENDIX 3: NORMALIZED TAX REVENUE LOSS

(Values in millions of U.S. dollars)

Country	2002	2003	2004	2005	2006	Total
Afghanistan, I.R. Of	0.00	0.00	0.00	0.00	0.00	0.00
Albania	0.00	0.00	0.00	0.00	0.00	0.00
Algeria	0.00	0.00	0.00	0.00	0.00	0.00
Angola	0.00	0.00	0.00	0.00	0.00	0.00
Antigua & Barbuda	0.00	0.00	0.00	0.00	0.00	0.00
Argentina	0.00	0.00	0.00	0.00	0.00	0.00
Armenia	34.04	49.38	20.99	63.15	36.12	203.68
Aruba	224.83	334.67	606.13	996.84	981.59	3,144.06
Azerbaijan, Rep. Of	0.00	0.00	0.00	0.00	0.00	0.00
Bahamas, The	0.00	0.00	0.00	0.00	0.00	0.00
Bahrain, Kingdom Of	0.00	0.00	0.00	0.00	0.00	0.00
Bangladesh	0.00	0.00	0.00	0.00	0.00	0.00
Barbados	71.79	80.22	86.91	131.57	12.91	383.39
Belarus	0.00	0.00	2,545.44	396.19	2,254.67	5,196.30
Belize	0.00	0.00	0.00	0.00	0.00	0.00
Benin	0.00	0.00	0.00	0.00	0.00	0.00
Bhutan	0.00	0.00	0.00	0.00	0.00	0.00
Bolivia	0.00	0.00	0.00	0.00	0.00	0.00
Bosnia & Herzegovina	0.00	0.00	0.00	0.00	0.00	0.00
Botswana	0.00	0.00	0.00	0.00	0.00	0.00
Brazil	0.00	0.00	0.00	0.00	0.00	0.00
Brunei Darussalam	0.00	0.00	0.00	0.00	0.00	0.00
Bulgaria	0.00	0.00	0.00	0.00	0.00	0.00
Burkina Faso	9.84	13.47	17.65	20.14	24.43	85.52
Burundi	2.25	0.92	0.00	17.59	41.99	62.76
Cambodia	55.85	65.31	80.47	79.09	101.25	381.97
Cameroon	0.00	0.00	0.00	0.00	0.00	0.00
Cape Verde	4.79	3.88	5.10	6.13	7.37	27.28
Central African Rep.	9.45	11.93	16.11	17.72	21.81	77.03
Chad	0.00	0.00	0.00	0.00	0.00	0.00
Chile	0.00	0.00	0.00	0.00	0.00	0.00
China,P.R.: Mainland	38,610.42	46,187.25	63,314.81	70,525.06	73,261.86	291,899.41
Colombia	0.00	0.00	0.00	0.00	0.00	0.00
Comoros	0.91	0.97	1.33	1.60	1.92	6.73
Congo, Dem. Rep. Of	0.00	0.00	0.00	0.00	0.00	0.00
Congo, Republic Of	0.00	348.94	1,124.23	13.08	14.51	1,500.76
Costa Rica	680.08	1,025.04	1,384.45	1,722.91	31.49	4,843.98
Côte D'Ivoire	0.00	0.00	0.00	0.00	0.00	0.00
Croatia	0.00	0.00	0.00	0.00	0.00	0.00
Cyprus	35.99	53.74	47.76	29.90	215.44	382.82
Czech Republic	0.00	0.00	0.00	0.00	0.00	0.00
Djibouti	6.52	7.94	9.62	10.53	12.42	47.04

continued

Appendix 3 continued

Country	2002	2003	2004	2005	2006	Total
Dominica	0.00	0.00	0.00	0.00	0.00	0.00
Dominican Republic	0.00	0.00	0.00	0.00	0.00	0.00
Ecuador	0.00	0.00	0.00	0.00	0.00	0.00
Egypt	211.87	268.09	350.23	417.96	523.65	1,771.80
El Salvador	137.53	142.27	191.86	192.77	123.07	787.50
Equatorial Guinea	0.00	0.00	0.00	0.00	0.00	0.00
Eritrea	0.00	0.00	0.00	0.00	0.00	0.00
Estonia	0.00	0.00	0.00	0.00	0.00	0.00
Ethiopia	92.32	26.66	14.64	232.85	267.88	634.35
Fiji	0.00	0.00	0.00	0.00	0.00	0.00
Gabon	0.00	0.00	0.00	0.00	0.00	0.00
Gambia, The	0.70	0.97	1.04	1.35	1.79	5.85
Georgia	36.35	54.98	66.71	59.17	136.66	353.87
Ghana	0.00	0.00	0.00	0.00	0.00	0.00
Grenada	0.00	0.00	0.00	0.00	0.00	0.00
Guatemala	431.79	395.99	431.40	474.90	106.46	1,840.54
Guinea	0.65	56.36	144.56	175.28	258.20	635.05
Guinea-Bissau	2.29	2.88	3.94	4.29	5.33	18.73
Guyana	0.00	0.00	0.00	0.00	0.00	0.00
Haiti	0.00	0.00	0.00	0.00	0.00	0.00
Honduras	685.76	690.67	703.93	5.55	6.80	2,092.72
Hungary	0.00	0.00	0.00	0.00	0.00	0.00
India	2,829.81	3,386.23	7,876.40	9,351.46	15,179.50	38,623.40
Indonesia	354.51	3,542.94	4,396.47	3,397.08	3,851.02	15,542.02
Iran, I.R. Of	0.00	0.00	0.00	0.00	0.00	0.00
Iraq	0.00	0.00	0.00	0.00	0.00	0.00
Israel	0.00	0.00	0.00	0.00	0.00	0.00
Jamaica	97.89	142.07	139.21	161.54	63.12	603.83
Jordan	0.00	0.00	0.00	0.00	0.00	0.00
Kazakhstan	0.00	0.00	0.00	0.00	0.00	0.00
Kenya	0.00	0.00	0.00	0.00	0.00	0.00
Kiribati	0.00	0.00	0.00	0.00	0.00	0.00
Kuwait	0.00	0.00	0.00	0.00	0.00	0.00
Kyrgyz Republic	0.00	0.00	0.00	0.00	0.00	0.00
Lao People's Dem.Rep	0.00	0.00	0.00	0.00	0.00	0.00
Latvia	100.24	114.96	178.35	112.92	118.85	625.31
Lebanon	0.00	0.00	0.00	0.00	0.00	0.00
Lesotho	0.00	0.00	0.00	0.00	0.00	0.00
Liberia	0.00	0.00	0.00	0.00	0.00	0.00
Libya	0.00	0.00	0.00	0.00	0.00	0.00
Lithuania	0.00	0.00	0.00	0.00	0.00	0.00
Macedonia, Fyr	16.42	24.54	37.57	47.07	16.64	142.24

continued

Appendix 3 continued

Country	2002	2003	2004	2005	2006	Total
Madagascar	89.76	64.35	48.34	60.10	76.21	338.75
Malawi	0.00	0.00	0.00	0.00	0.00	0.00
Malaysia	3,084.11	4,554.16	4,919.67	5,427.25	5,799.00	23,784.19
Maldives	0.00	0.00	0.00	0.00	0.00	0.00
Mali	160.35	179.14	201.57	218.15	242.68	1,001.89
Malta	47.81	104.92	138.82	235.78	296.75	824.08
Marshall Islands	0.00	0.00	0.00	0.00	0.00	0.00
Mauritania	0.00	0.00	0.00	0.00	0.00	0.00
Mauritius	0.00	0.00	0.00	0.00	0.00	0.00
Mexico	11,203.76	10,444.89	11,389.38	12,308.35	13,006.20	58,352.58
Micronesia	0.00	0.00	0.00	0.00	0.00	0.00
Moldova	34.05	71.18	106.62	82.29	0.00	294.14
Mongolia	0.00	0.00	0.00	0.00	0.00	0.00
Montenegro	0.00	0.00	0.00	0.00	0.00	0.00
Morocco	0.00	0.00	0.00	0.00	0.00	0.00
Mozambique	61.13	1.03	0.00	0.00	136.79	198.95
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00
Namibia	0.00	0.00	0.00	0.00	0.00	0.00
Nepal	114.18	88.95	105.50	124.68	59.74	493.07
Nicaragua	132.39	155.59	191.40	275.43	330.06	1,084.87
Niger	0.00	0.00	0.00	0.00	0.00	0.00
Nigeria	0.00	0.00	0.00	0.00	0.00	0.00
Oman	0.00	0.00	0.00	0.00	0.00	0.00
Pakistan	0.00	0.00	0.00	0.00	0.00	0.00
Palau	0.00	0.00	0.00	0.00	0.00	0.00
Panama	625.25	682.57	714.73	970.63	1,060.64	4,053.83
Papua New Guinea	0.00	0.00	0.00	0.00	0.00	0.00
Paraguay	30.59	15.68	0.00	2.54	190.19	239.00
Peru	0.00	0.00	0.00	0.00	0.00	0.00
Philippines	2,486.83	3,598.06	4,196.06	5,483.26	5,505.18	21,269.39
Poland	0.00	0.00	0.00	0.00	0.00	0.00
Qatar	0.00	0.00	0.00	0.00	0.00	0.00
Romania	0.00	0.00	0.00	0.00	0.00	0.00
Russia	0.00	0.00	0.00	0.00	0.00	0.00
Rwanda	18.88	23.89	31.18	35.81	47.41	157.16
Samoa	0.00	0.51	0.49	84.22	1.06	86.28
São Tomé & Príncipe	0.00	0.00	0.00	0.00	0.00	0.00
Saudi Arabia	0.00	0.00	0.00	0.00	0.00	0.00
Senegal	0.00	0.00	0.00	0.00	0.00	0.00
Serbia	0.00	0.00	0.00	0.00	0.00	0.00
Seychelles	82.12	59.73	22.03	24.84	30.36	219.08
Sierra Leone	4.19	5.27	6.61	7.93	9.72	33.72

continued

Appendix 3 continued

Country	2002	2003	2004	2005	2006	Total
Slovak Republic	0.00	0.00	0.00	0.00	0.00	0.00
Slovenia	0.00	0.00	0.00	0.00	0.00	0.00
Solomon Islands	5.21	5.78	6.41	7.04	7.80	32.24
Somalia	0.00	0.00	0.00	0.00	0.00	0.00
South Africa	0.00	0.00	0.00	0.00	0.00	0.00
Sri Lanka	0.00	0.00	0.00	0.00	0.00	0.00
St. Kitts	1.07	1.45	1.36	1.54	1.69	7.12
St. Lucia	0.00	0.00	0.00	0.00	0.00	0.00
St. Vincent & Grens.	67.89	61.25	111.63	119.60	0.38	360.75
Sudan	0.00	0.00	0.00	0.00	0.00	0.00
Suriname	0.00	0.00	0.00	0.00	0.00	0.00
Swaziland	0.00	0.00	0.00	0.00	0.00	0.00
Syrian Arab Republic	315.11	398.19	3,422.93	0.61	1.45	4,138.28
Tajikistan	42.11	29.23	43.27	13.69	0.00	128.31
Tanzania	0.00	0.00	0.00	0.00	0.00	0.00
Thailand	0.00	0.00	0.00	0.00	0.00	0.00
Timor-Leste	0.00	0.00	0.00	0.00	0.00	0.00
Togo	26.61	85.68	26.84	64.41	14.57	218.12
Tonga	0.00	0.00	0.00	0.00	0.00	0.00
Trinidad & Tobago	0.00	0.00	0.00	0.00	0.00	0.00
Tunisia	0.00	0.00	0.00	0.00	0.00	0.00
Turkey	0.00	0.00	0.00	0.00	0.00	0.00
Turkmenistan	0.00	0.00	0.00	0.00	0.00	0.00
Uganda	0.00	0.00	0.00	0.00	0.00	0.00
Ukraine	0.00	0.00	0.00	0.00	0.00	0.00
United Arab Emirates	0.00	0.00	0.00	0.00	0.00	0.00
Uruguay	0.00	0.00	0.00	0.00	0.00	0.00
Uzbekistan	0.00	0.00	0.00	0.00	0.00	0.00
Vanuatu	0.00	0.00	0.00	0.00	0.00	0.00
Venezuela, Rep. Bol.	0.00	0.00	0.00	0.00	0.00	0.00
Vietnam	0.00	0.00	0.00	0.00	0.00	0.00
Yemen, Republic Of	0.00	0.00	0.00	0.00	0.00	0.00
Zambia	0.00	135.85	194.37	451.09	168.48	949.79
Zimbabwe	196.51	0.00	89.74	96.29	517.90	900.44

APPENDIX 4: TAX REVENUE LOSS AS A PERCENT OF GOVERNMENT REVENUE

(Values in millions of U.S. dollars)

Country	Average Tax Revenue Loss Non Normalized	Average Gov't Revenue 2002-2006	Loss of Tax Revenue (In Percent of Government Revenue)	Country	Average Tax Revenue Loss Non Normalized	Average Gov't Revenue 2002-2006	Loss of Tax Revenue (In Percent of Government Revenue)
Afghanistan, I.R. Of	0.57	626.73	0.1%	Cyprus	76.56	6,368.71	1.2%
Albania	3.88	1,389.05	0.3%	Czech Republic	424.81	34,229.61	1.2%
Algeria	50.82	34,058.55	0.1%	Djibouti	9.41	135.00	7.0%
Angola	11.90	17,000.00	0.1%	Dominica	0.50	73.90	0.7%
Argentina	329.47	21,468.07	1.5%	Dominican Republic	1.31	4,781.29	0.0%
Armenia	40.74	833.94	4.9%	Ecuador	137.48	33,000.00	0.4%
Aruba	628.81	no data	-	Egypt	354.36	22,787.73	1.6%
Azerbaijan, Rep. Of	482.63	8,000.00	6.0%	El Salvador	157.50	2,592.42	6.1%
Bahamas, The	0.00	959.24	0.0%	Equatorial Guinea	1.51	659.90	0.2%
Bahrain, Kingdom Of	0.00	3,569.46	0.0%	Estonia	128.03	3,686.82	3.5%
Bangladesh	294.44	5,651.04	5.2%	Ethiopia	126.87	782.27	16.2%
Barbados	76.68	1,185.80	6.5%	Fiji	4.18	724.74	0.6%
Belarus	1,732.10	8,063.18	21.5%	Gabon	12.24	2,700.00	0.5%
Belize	0.28	347.00	0.1%	Gambia, The	1.17	155.60	0.8%
Benin	16.30	651.69	2.5%	Georgia	70.77	899.21	7.9%
Bhutan	0.00	104.61	0.0%	Ghana	13.06	2,006.24	0.7%
Bolivia	27.81	1,919.76	1.4%	Grenada	0.00	8,580.00	0.0%
Bosnia & Herzegovina	7.08	3,889.59	0.2%	Guatemala	368.11	3,035.87	12.1%
Brazil	543.47	no data	-	Guinea	127.01	769.70	16.5%
Brunei Darussalam	0.00	689.00	0.0%	Guinea-Bissau	3.75	no data	-
Bulgaria	51.80	8,679.49	0.6%	Guyana	0.32	488.70	0.1%
Burkina Faso	17.10	694.03	2.5%	Honduras	418.54	1,935.12	21.6%
Burundi	15.69	295.20	5.3%	Hungary	0.00	34,064.44	0.0%
Cambodia	76.39	550.93	13.9%	India	7,724.68	88,243.81	8.8%
Cameroon	80.73	471.20	17.1%	Indonesia	3,108.40	40,657.30	7.6%
Cape Verde	5.46	298.84	1.8%	Iran, I.R. Of	36.17	52,904.69	0.1%
Central African Rep.	15.41	105.60	14.6%	Iraq	0.29	4,400.00	0.0%
Chad	0.03	232.40	0.0%	Israel	151.21	49,554.85	0.3%
Chile	206.04	23,298.50	0.9%	Jamaica	120.77	3,299.65	3.7%
China,P.R.: Mainland	58,379.88	188,121.89	31.0%	Jordan	43.59	3,151.30	1.4%
Colombia	427.57	23,100.90	1.9%	Kazakhstan	109.07	7,974.81	1.4%
Comoros	1.35	27.60	4.9%	Kenya	48.55	3,303.62	1.5%
Congo, Dem. Rep. Of	1.94	569.85	0.3%	Kuwait	0.00	27,492.74	0.0%
Congo, Republic Of	375.19	1,504.95	24.9%	Kyrgyz Republic	1.55	466.58	0.3%
Costa Rica	968.80	4,364.00	22.2%	Latvia	125.06	3,699.24	3.4%
Côte D'Ivoire	0.00	2,593.50	0.0%	Lebanon	23.70	4,265.04	0.6%
Croatia	41.01	13,750.15	0.3%	Liberia	0.99	no data	-

continued

Appendix 4 continued

Country	Average Tax Revenue Loss Non Normalized	Average Gov't Revenue 2002-2006	Loss of Tax Revenue (In Percent of Government Revenue)
Libya	13.91	58,040.00	0.0%
Lithuania	0.00	6,276.55	0.0%
Macedonia, Fyr	28.45	3,167.00	0.9%
Madagascar	67.75	531.86	12.7%
Malawi	0.74	1,254.00	0.1%
Malaysia	4,947.11	32,130.18	15.4%
Maldives	0.00	278.69	0.0%
Mali	200.38	796.90	25.1%
Malta	164.82	2,178.38	7.6%
Mauritania	25.43	770.00	3.3%
Mauritius	9.99	1,223.72	0.8%
Mexico	11,670.52	257,100.00	4.5%
Moldova	73.53	754.25	9.7%
Mongolia	43.49	852.54	5.1%
Morocco	344.65	16,483.57	2.1%
Mozambique	66.32	no data	-
Myanmar	0.00	no data	-
Nepal	98.61	809.97	12.2%
Nicaragua	216.97	783.34	27.7%
Niger	10.51	415.61	2.5%
Nigeria	1,020.37	19,760.00	5.2%
Oman	67.23	18,130.00	0.4%
Pakistan	248.13	13,309.17	1.9%
Panama	810.77	6,020.00	13.5%
Papua New Guinea	7.03	1,646.96	0.4%
Paraguay	59.75	1,767.73	3.4%
Peru	275.66	12,500.37	2.2%
Philippines	4,253.88	13,859.11	30.7%
Poland	57.77	82,607.34	0.1%
Qatar	0.00	18,777.16	0.0%
Romania	0.00	19,795.78	0.0%
Russia	1,332.59	257,994.64	0.5%
Rwanda	31.43	930.00	3.4%
Samoa	21.57	171.30	12.6%
Saudi Arabia	399.86	293,700.00	0.1%
Senegal	2.35	no data	-
Seychelles	43.82	366.06	12.0%
Sierra Leone	6.74	122.79	5.5%
Slovak Republic	99.88	14,406.81	0.7%
Slovenia	9.61	2,971.18	0.3%
Solomon Islands	6.45	49.70	13.0%
Somalia	0.00	no data	-
South Africa	1,084.22	58,470.69	1.9%
St. Kitts	1.42	141.80	1.0%
St. Lucia	1.18	141.20	0.8%
St. Vincent & Grens.	72.15	no data	-
Sudan	31.45	11,550.00	0.3%
Suriname	1.93	392.60	0.5%
Syrian Arab Republic	827.66	11,230.00	7.4%
Tajikistan	32.08	241.92	13.3%
Tanzania	32.68	4,099.00	0.8%
Thailand	1,382.01	34,578.05	4.0%
Togo	43.62	322.54	13.5%
Tonga	0.24	80,480.00	0.0%
Trinidad & Tobago	56.21	3,999.66	1.4%
Turkey	305.73	132,465.87	0.2%
Turkmenistan	85.74	1,667.00	5.1%
Uganda	11.74	941.31	1.2%
Ukraine	6.99	23,310.98	0.0%
Uruguay	63.84	3,960.19	1.6%
Uzbekistan	0.03	8,884.00	0.0%
Vanuatu	0.00	78.70	0.0%
Venezuela, Rep. Bol.	307.97	27,532.36	1.1%
Yemen, Republic Of	195.96	9,243.00	2.1%
Zambia	237.45	1,094.26	21.7%
Zimbabwe	225.11	714.50	31.5%

Source: The World Bank, *World Development Indicators*

Central Intelligence Agency, *The World Fact Book*

Countries which do not exhibit tax revenue loss due to trade mispricing are repressed.

GLOBAL FINANCIAL INTEGRITY

1319 18th Street NW
Suite 200
Washington, D.C. 20036
USA

Tel: +1 (202) 293-0740
Fax: +1 (202) 293-1720

http://www.gfip.org