



THE PRICE OF OFFSHORE REVISITED*

NEW ESTIMATES FOR “MISSING” GLOBAL PRIVATE
WEALTH, INCOME, INEQUALITY, AND LOST TAXES

*At dinner they did discourse very finely to us of the probability
that there is a vast deal of money hid in the land.*

-- Samuel Pepys, Diary (1663)

Dye mon, gen mon

-- Haitian proverb

There's something out there . . . and it's GROWING!

-- Ripley

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TABLE OF CONTENTS

The Price of Offshore Revisited

1. INTRODUCTION/ SUMMARY AND KEY FINDINGS

2. WHERE IS "OFFSHORE," ANYWAY?

3. THE GLOBAL HAVEN INDUSTRY

4. OLD ESTIMATES

5. NEW ESTIMATES

6. TRADE MISPRICING – AN ASIDE

7 . IMPLICATIONS

APPENDIX I: THE PRE-HISTORY OF OFFSHORE ESTIMATES

APPENDIX II: EXPLAINING CAPITAL FLIGHT

APPENDIX III: KEY CHARTS

1. INTRODUCTION/ SUMMARY

The definition of victory for this paper is to review and improve upon existing estimates of the size, growth and distribution of untaxed private wealth protected and serviced by the global offshore industry.

This is necessarily an exercise in night vision. The subterranean system that we are trying to measure is the economic equivalent of an astrophysical black hole.

Like those black holes, this one is virtually invisible and can be somewhat perilous to observers who venture too close. So, like astronomers, researchers on this topic have necessarily used indirect methods to do their estimates, conducting their measurements from a respectful distance. This indirect approach is painstaking, and has many inherent limitations, as we'll see.

Unlike in the field of astrophysics, however, the invisibility here is fundamentally man-made. Private sector secrecy and the official government policies that protect it have placed most of the data that we need directly off limits – even though it is, in principle, readily available.

In many ways, the crucial policy question is – what are the costs and benefits of all this secrecy?

Another key theme that emerges from this paper is that there is an urgent need for tax justice advocates and their allies in governments and in the public, especially in “source” countries where the wealth is coming from, to press the relevant authorities for this information.

The very existence of the global offshore industry, and the tax-free status of the enormous sums invested by their wealthy clients, is predicated on secrecy: that is what this industry really “supplies” as it competes for, conceals, and manages private capital from all over the planet, from any and all sources, no questions asked.

We are up against one of society's most well-entrenched interest groups. After all, there's no interest group more rich and powerful than the rich and powerful, who are the ultimate subjects of our research.

The first step, however, are the estimates. The way is hard, the work is tedious, the data mining is as mind-numbing as any day below surface at the coal face, and the estimates are subject to maddening, irreducible uncertainties.

Nevertheless, as usual, some things may be said.

New Estimates. As discussed below, previous estimates of the size and growth of the offshore industry to date have relied on rough judgments and rules of thumb or, at best, on one or two very simple estimation methods.

Here we have triangulated on our estimates from the vantage point of several different methods. The aim is not pseudo-precision, much less “really big numbers,” but to identify a plausible “base case” for this otherwise-well hidden sector of the global economy.

A More Open Process. Another objective is to keep a sharp eye out for the puzzles surfaced by this data analysis, of which there are many. A key problem with previous estimates is sensationalism. That is to be expected, given the subject matter, and the fact that estimation is still dominated by relatively closed communities of consulting firms, government agencies, or NGOs.

An important aim of this project is to establish a more open, transparent, collaborative model for doing such research so that the data sources, estimation methods, and core assumptions are all exposed to the sunlight of peer review, and ultimately to public scrutiny.

Estimation Methods. As discussed below in more detail, this paper employs four key estimation approaches: (1) a “**sources-and-uses**” model for country-by-country unrecorded capital flows; (2) an “**accumulated offshore wealth**” model; (3) an “**offshore investor portfolio**” model; and (4) direct estimates of offshore assets at the world’s top 50 **global private banks**.

To compile its estimates, the paper uses latest available data from the World Bank and IMF, the UN, central banks, and national accounts to explicitly model capital flows for each member of a subgroup of 139 key “source” countries that publish such data.

The paper goes further still, supplementing these models with other evidence, including (1) data on so-called “transfer mispricing,” (2) data on the cross-border demand for liquid “mattress money” like reserve currency and gold, part of which may move through offshore markets; and (3) a review of market research by leading consulting firms on the size of the “offshore” private banking market.
(These methods are discussed in detail in Section 5, below.)

We believe that the resulting estimates of unrecorded capital flows and accumulated offshore wealth are the most rigorous and comprehensive ever produced.

In the spirit of open research, we hereby issue an open challenge to the IMF and the World Bank – to all comers, in fact – to see if they can come up with better estimates.

KEY FINDINGS

Overall Size

A significant fraction of global private financial wealth -- by our estimates, at least **\$21 to \$32 trillion** as of 2010 -- has been invested virtually tax-free *through* the world's still-expanding black hole of more than 80 "offshore" secrecy jurisdictions. We believe this range to be conservative, for reasons discussed below.

Remember: this is just financial wealth. A big share of the real estate, yachts, racehorses, gold bricks -- and many other things that count as non-financial wealth -- are also owned via offshore structures where it is impossible to identify the owners. These are outside the scope of this report.

On this scale, this "offshore economy" is large enough to have a major impact on estimates of inequality of wealth and income; on estimates of national income and debt ratios; and -- most importantly -- to have very significant negative impacts on the domestic tax bases of key "source" countries (that is, countries that have seen net unrecorded private capital outflows over time¹.)

2. Our 139-country focus group: who are the real debtors?

We have focused on a subgroup of 139 mainly low-middle income "source" countries² for which the World Bank and IMF have sufficient external debt data.

Our estimates for this group underscore how misleading it is to regard countries as "debtors" only by looking at one side of their balance sheets.

Since the 1970s, with eager (and often aggressive and illegal) assistance from the international private banking industry, it appears that private elites in this sub-group of 139 countries had accumulated **\$7.3 to \$9.3 trillion of unrecorded offshore wealth** in 2010, conservatively estimated, even while many of their public sectors were borrowing themselves into bankruptcy, enduring agonizing "structural adjustment" and low growth, and holding fire sales of public assets.

¹ More precisely, "source countries" are those whose total real accumulated net unrecorded private capital outflows are positive for the period 1970-2010 (or whatever period is available for the particular country.) Equivalently, it is those countries whose private citizens have accumulated positive net unreported / untaxed financial wealth abroad.

² This is a rather homogenous group, the large majority of which are low-middle income countries, but include some "rich non-OECD" countries like Saudi Arabia and Kuwait, as well as a few 'developed' countries like Hungary and Korea. Our criterion was that a) external debt data was available, and b) they are 'source' countries: that is, those countries whose private citizens have accumulated positive net unreported/untaxed financial wealth abroad.

These same source countries had aggregate gross external debt of **\$4.08 trillion** in 2010. However, once we subtract these countries' foreign reserves, most of which are invested in First World securities, their aggregate net external debts were **minus \$2.8 trillion** in 2010. (This dramatic picture has been increasing steadily since 1998, the year when the external debts minus foreign reserves was at its peak for these 139 countries, at +\$1.43 trillion.³)

So in total, by way of the offshore system, these supposedly indebted "source countries" – including all key developing countries – **are not debtors at all: they are net lenders, to the tune of \$10.1 to \$13.1 trillion** at end-2010.

The problem here is that the assets of these countries are held by a small number of wealthy individuals while the debts are shouldered by the ordinary people of these countries through their governments.

As a U.S. Federal Reserve official observed back in the 1980s: "The real problem is not that these countries don't have any assets. The problem is, they're all in Miami (and, he might have added, New York, London, Geneva, Zurich, Luxembourg, Singapore, and Hong Kong)"

These private unrecorded offshore assets and the public debts are intimately linked, historically speaking: the dramatic increase in unrecorded capital outflows (and the private demand for First World currency and other assets) in the 1970s and 1980s was positively correlated with a surge in First World loans to developing countries: much of this borrowing left these countries under the table within months, and even weeks, of being disbursed.⁴

Today, local elites continue to "vote with their financial feet" while their public sectors borrow heavily abroad – but it is First World countries that are doing most of the borrowing. It is these frequently heavily indebted source countries and their elites that have become their financiers.

In terms of tackling poverty, it is hard to imagine a more pressing global issue to address.

3. How this wealth is concentrated. Much of this wealth appears to be concentrated in the hands of private elites that reside in a handful of source countries – many of which are still regarded officially as "debtors."

³ World Bank/IMF data (2012), my analysis.

⁴ See James Henry, *The Blood Bankers, tales from the global underground economy*, October 2003, for an investigative inside look at the intestines of the global private banking model in developing countries.

By our estimates, of the \$7.3 - \$9.3 trillion of offshore wealth belonging to residents of these 139 countries, **the top 10 countries account for 61 percent** and the **top 20 for 81 percent**. (See Appendix 3, p55 for more details.)

4. Untaxed Offshore Earnings start to swamp outflows. Our estimates also correct the sanguine view that since new outflows of capital appear to have recently declined from countries like Mexico and Brazil, capital flight is no longer a problem for these countries.

Once we take into account the growth of large untaxed earnings on accumulated offshore wealth, it turns out that over the long haul from 1970 to 2010 the real value (in \$2000) of these offshore earnings alone may be as much as \$3.7 trillion – equivalent to about 60 percent of the global total for all unrecorded capital outflows during this period.⁵ For regions like Latin America, Sub-Saharan Africa and the Middle East that have long histories of accumulating offshore wealth and unreported earnings abroad, the ratio is close to 100 percent or more.

By shifting attention from flows to accumulated stocks of foreign wealth, this paper calls attention to the fact that retention of investment earnings abroad can easily become so significant that initial outflows are eventually replaced by “hidden flight,” with the hidden stock of unrecorded private wealth generating enough unreported income to keep it growing long after the initial outflows have dried up.

5. Offshore earnings swamp foreign investment. Another key finding is that once we fully account for capital outflows and the lost stream of future earnings on the associated offshore investments, foreign direct and equity investment flows are almost entirely offset – even for some of the world’s largest recipients of foreign investment.

6. Wide open and “efficient” capital markets: how traditional theories failed. Standard development economics assumes that financial capital will flow predominantly from “capital-rich” high-saving rich countries to “capital-scarce” countries where returns on investment are higher.

But for many countries the global financial system seems to have enabled private investor motives – understandable ones like asset diversification along with less admirable ones like tax evasion -- to swamp the conventional theory. Reducing frictions in global finance, which was supposed to help capital flow in to capital-starved developing countries more easily and efficiently, seems to have encouraged capital to flow out. This raises new questions about how ‘efficient’ frictionless global capital markets are.

7. The active role of private banks. Our analysis refocuses attention on the critical, often unsavory role that global private banks play. A detailed analysis of the top 50

⁵ See Appendix III, p54

international private banks reveals that at the end of 2010 these 50 collectively managed more than **\$12.1 trillion** in cross-border invested assets from private clients, including via trusts and foundations. Consider the role of smaller banks, investment houses, insurance companies, and non-bank intermediaries like hedge funds and independent money managers in the offshore cross-border market, plus self-managed funds, and this figure seems consistent with our overall offshore asset estimates of US\$21-\$32 trillion.

A disproportionate share of these assets were managed by major global banks that are well known for their role in the 2008 financial crisis, their generous government bailouts and bountiful executive compensation packages. We can now add this to their list of distinctions: they are key players in many havens around the globe, and key enablers of the global tax injustice system.

It is interesting to note that despite choppy markets the rank order at the top of the private banking world has been remarkably stable – key recent trends have been for an increased role for independent boutique money managers and hedge funds, and a shift toward banks with a strong Asian presence.

8. Offshore Investor Portfolios. Based on a simple model of offshore investor portfolio behavior, data from the Bank for International Settlements (BIS), and interviews with private bankers and wealth industry analysts, this yields a “scale-up” factor that is also consistent with the aggregate range for 2010 noted earlier.

A simple model, based on a combination of BIS data on cross-border deposits and other asset holdings by “non-bank” investors, an analysis of portfolio mix assumptions made by wealth industry analysts, and interviews with actual private banks, suggests an overall multiplier of 3.0 to scale up our cross-border deposits figure to total financial assets. This is very conservative.

9. New Revenue Sources for Global Needs. Finally, if we could figure out how to tax all this offshore wealth without killing the proverbial Golden Goose, or at least entice its owners to reinvest it back home, this sector of the global underground is also easily large enough to make a significant contribution to tax justice, investment, and paying the costs of global problems like climate change.

10. Other estimates. In compiling the evidence for this paper, we’ve had a chance to examine other recent work by analysts. We find a number of shortcomings, particularly in methods that rely heavily on studies of intra-company transfer pricing. Section 4, below, explores this in more detail.

2. WHERE IS “OFFSHORE,” ANYWAY?

Since the late 1970s, investigative journalists, tax authorities, drug enforcement officials, terrorist trackers, and national security experts -- and a few economists -- have gradually become aware that there is indeed a “vast deal of money” -- a large and growing chunk of the world’s private wealth and income -- hidden out there, not so much “in the land,” but “offshore,” protected by a highly-paid, industrious bevy of professional enablers in the private banking, legal, accounting, and investment industries, taking advantage of the increasingly borderless, frictionless global economy.

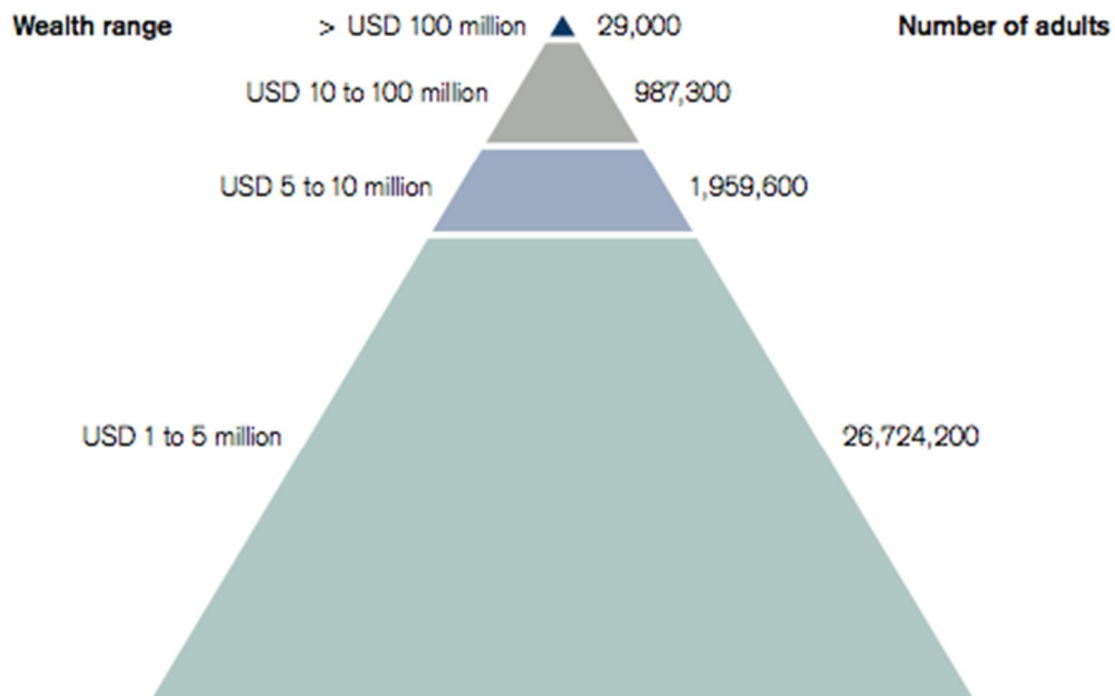
Grade-school geography conditions us to think of “offshore” as a physical location. Indeed, some “residential havens” like Singapore and Switzerland do specialize in providing secure low-tax physical residences to the world’s wealthiest people, along with expensive private schools, hospitals, and resorts to enhance the family dynasties’ human capital; and highly secure storage facilities for private collections of art, gold, jewels, classic cars, yachts, planes, weapons and other trinkets.

However, private banking has long since become virtual. So the term “offshore” refers not so much to the actual physical location of private assets or liabilities, but to nominal, hyper-portable, multi-jurisdictional, often quite temporary locations of *networks of legal and quasi-legal entities and arrangements* that manage and control private wealth -- always in the interests of those who manage it, supposedly in the interests of its beneficial owners, and often in indifference or outright defiance of the interests and laws of multiple nation states. A painting or a bank account may be located inside Switzerland’s borders, but the all-important legal structure that owns it -- typically that asset would be owned by an anonymous offshore company in one jurisdiction, which is in turn owned by a trust in another jurisdiction, whose trustees are in yet another jurisdiction (and that is one of the simplest offshore structures) -- is likely to be fragmented in many pieces around the globe.

Ultimately, then, the term “offshore” refers to a set of capabilities. The key clients for the offshore system include the world’s wealthiest individuals and companies, as well as its worst villains. Numbering just a few million of the world’s 6.5 billion people, they are an incredibly diverse group, from 30-year old Chinese real estate speculators and Silicon-Valley software tycoons to Dubai oil sheiks, Russian Presidents, mineral-rich African dictators and Mexican drug lords.

Number of high net worth individuals, 2011

Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2011



From a slight distance, all these players share the same basic needs: (1) anonymity for them, their families, and their business and political dealings; (2) the ability to minimize the net present value of future taxes, net of tax avoidance costs; (3) investment management, for those who still believe in it; (4) ability to easily access and manage their wealth from anywhere on the planet; (5) secure places to hang out, hide out and enjoy life; and (6) iron-clad financial security for their huge stocks of anonymously-owned, largely-untaxed private assets, against the continuing threats posed not only by tax men and prosecutors, but also by kidnappers, extortionists, spies, hit men, con men, hackers, paparazzi, political opponents, disgruntled family members, ex-wives, ex-lovers, and each other.

It is these core capabilities – secrecy, tax minimization, access, asset management, and security – that our modern “offshore” system offers. In the last thirty years a sophisticated transnational private infrastructure of service providers has grown up to deliver precisely these services on an unprecedented scale. This “pirate banking” system now launders, shelters, manages and, if necessary, re-domiciles the riches of many of the world’s worst villains, as well as the tangible and intangible assets and liabilities of many of our wealthiest individuals, alongside our most successful mainstream banks, corporations, shipping companies, insurance companies, accounting firms and law firms.

All these players have become, as it were, citizens of a brave new virtual country -- one that lack physical boundaries but can still offer escape routes from many of the taxes, financial regulations, human rights standards, and moral restraints that the rest of us take for granted: the responsibilities of society. One set of rules for a tiny minority of rich and powerful people; another set for everyone else.

The disturbing reality is that little of this analysis is new: critics like me have been discussing this structural defect in the world economy and development finance since at least the 1980s.⁶ The Tax Justice Network has been talking about it for a decade. Indeed, since the recent financial crisis began in late 2007, world leaders have started paying more attention -- at least rhetorically. At its November 2008 summit in Washington, for example, the G20 called on tax authorities to "continue their efforts to promote tax information exchange and (address) the lack of transparency." At a summit in London the G20 declared on April 2, 2009 that "the era of bank secrecy is over," endorsed a new toolbox of measures to be used against jurisdictions that fail to comply with international standards, and promised to "develop proposals to help developing countries secure the benefits of a new cooperative tax environment by the end of 2009."

It should have been a warning that the blacklist of tax havens produced by the OECD, which was supposed to be in the frontline of the global fight against tax haven secrecy, was [empty](#) on April 7, 2009 -- just five days after that dramatic G20 statement, and it remains empty. Meanwhile, the private banking operations of global banks remain among their most profitable divisions.

Subsequent G20s seem to have obsessed with debt burdens created by the crisis and seem to have lost interest in cracking down on havens: and leaders in the UK, Canada, and the US have used the crisis to make the case for cutting taxes still farther. When it briefly appeared in 2010 that the crisis was ebbing, conservative leaders also argued that the time for anti-haven "hysteria" was over.

Overall, therefore, the lesson for haven reform is that we should not lean too heavily on cyclical moods. The haven system played a significant role in aggravating our latest, mainly First World crisis, by facilitating badly under-regulated cross-border lending, hedge funds, and insurance. But the serious harms that the offshore system creates

⁶ See, for example, by this author: "Noncompliance with US Tax Law," 15-111, in Income Tax Compliance. A Report of the ABA Section of Taxation. (Reston, Virginia: ABA, 1983); "The Debt Hoax," The New Republic, April 1986; "America the Tax Haven," The Washington Post, January 29, 1989; Banqueros y Lavadolares. (425 pp, Bogota: Tercer Mundo Editores, 1996); James S. Henry, The Blood Bankers. (2005: Basic Books, 2005); "The Myth of Debt Relief," in Steve Hiatt, ed., A Game as Old as Empire. (SF: Barrett Koehler, 2007); Pirate Bankers (2012, forthcoming). See also John Christensen, "Dirty Money: Inside the Secret World of Offshore Bank," 41-67, in Steve Hiatt, ed., A Game as Old as Empire. (SF: Barrett Koehler, 2007); Nicholas Shaxson, Treasure Islands. (UK: Palgrave MacMillan, 2011), and James Boyce and Leonice Ndikumana (2012).

been around for decades, chronically affecting many of the world's poorest countries, and over time undermining tax justice in rich and poor countries alike.

3. THE GLOBAL HAVEN INDUSTRY

Given this “virtual geography” perspective, it is important to emphasize several structural facts about the “offshore” industry, as we work on our estimates.

First, it is important to distinguish between the “intermediary havens” which act as conduits for wealth and “destination havens” where private wealth ultimately ends up.

We typically associate offshore legal entities like shell companies, asset protection trusts, captive insurance companies, and haven banks with the conventional list of “offshore havens” (or “Treasure Islands”) found on, say, early 2000s OECD blacklists: sultry, dodgy tropical islands like Bermuda, the Cayman Islands, Nauru, St. Kitts, Antigua, and Tortola; or the European bolt holes such as Switzerland, the Channel Islands, Monaco, Cyprus, Gibraltar, and Liechtenstein. These 80-odd front-line havens, most of which are “offshore” by anyone’s definition, collectively provide a home to over 60 million people, and over 3.5 million paper companies, thousands of shell banks and insurance companies, more than half of the world’s registered commercial ships above 100 tons, and tens of thousands of shell subsidiaries for the world’s largest banks, accounting firms, and energy, software, drug, and defense companies.

In the 1970s-90s, as multinational corporations (MNCs), banks, investors, and a variety of First and Third World scalawags demanded haven services, the elites in these tiny ersatz states discovered they could make a darn good living simply by turning a blind eye. Their numbers roughly tripled during these years.

However, as the Tax Justice Network has recently emphasized in its work on its Financial Secrecy Index since 2009, this conventional list of havens is misleading, if we’re interested in “finding the money.” For while there are millions of companies and thousands of thinly capitalized banks in these fiscal paradises, few wealthy people want to depend on them to manage and secure their wealth. These stealthy investors ultimately need access to all the primary benefits of “high-cost” First World capital markets -- relatively efficient, regulated securities markets, banks backstopped by large populations of taxpayers, and insurance companies; well-developed legal codes, competent attorneys, independent judiciaries, and the rule of law. generally, these can only be found in a handful of so-called First World countries like the US, the UK, Switzerland, the Netherlands, Belgium/Luxembourg, and Germany. So we have to look to these “destination havens” in order to get a handle on the size and growth of unrecorded cross-border private wealth.

Second, the private “enablers” play a critical role in this market, one that cuts across individual havens. Investing and securing large amounts of private wealth across borders

is complex, requiring specialized skills in tax, financial planning, banking, entity structuring, and estate planning. This is not something that most wealthy people undertake on their own. As noted, therefore, a global services industry of law firms, accountants, insurance companies, and especially private banks has grown up to cater to this cross-border market.

While it has thousands of players, the room at the top is surprisingly limited – global accounting is still dominated by the “Big Four,” while a small number of “capital city” and haven-based law firms dominate the lawyering, and global private banking is dominated by less than 50 multinational banks. For our estimates this is quite helpful, because it yields another metric that can be used to triangulate on the size of the offshore market.

Third, another key development since the late 1990s is the growth of the “onshore-offshore” market for secrecy and tax avoidance, especially in the United States. From Delaware to Alaska, Nevada, and South Dakota, a growing number of states are offering inexpensive legal entities like “limited liability corporations” and “asset protection trusts” whose levels of secrecy, protection against creditors, and tax advantages rival those of the world’s traditional secretive offshore havens. The widespread use of the likes of the Nevada LLC or the Delaware asset protection trust, in the supposedly ‘onshore’ United States, further undermines the traditional association of “offshore” with particular physical locations, and underscores the fact that the *cross-border flows* examined in this paper may be just the tip of the iceberg.

4. OLD ESTIMATES

The History and Politics of Estimation

As Lord Kelvin, the discoverer of absolute zero on the temperature scale, once noted, “If you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind.”

Since the late 1970s, a growing number of economists have acknowledged the existence of the subterranean economy and have begun to use a variety of methods to estimate its size, growth rate, and composition more precisely.

The first phase of this estimation work, in which the author was deeply involved, is provided in Appendix 1: *“The Pre-History of Offshore Estimates.”* This attempted to identify the size and growth of the *domestic* underground economies in leading First World countries by analyzing *anomalies* in the demand for currency and other monetary aggregates – for example, currency stocks outstanding that were wildly disproportionate to transaction demand, or weird inter-regional currency flows in the US Federal Reserve System.⁷

This initial phase of economic research on the “underground economy” was very successful in identifying the fact that this sector was generally large, vibrant and growing, relative to above-ground economic activity in many countries. It led to a brief period in which official institutions like the US Congress, the Treasury, and the Federal Reserve collaborated actively with the author and other researchers, providing access to internal data, venues for testimony, and even support for new regulations – like the U.S. Treasury’s new reporting requirements for US currency turned into banks, adopted quickly in 1977-79 after the author and other analysts discovered that banks in Florida and Texas near the U.S.’ southern border with Mexico were receiving an inordinate amount of \$100 bills.

This early research led us to notice that – contrary to the basic assumptions of development economics – there were very large gross and net flows from the developing world to OECD countries: not only in the form of demand for reserve assets like currency and gold, but also for ordinary financial assets.

Unfortunately, however, once we opened the doors on these previously-hidden hidden cross-border flows of bank deposits and other assets in the early 1980s the US Treasury, the Federal Reserve, the US Congress, other Western governments and the OECD, as

⁷ See Appendix I to this paper: “The Pre-History of Offshore Estimates.”

well as the global big bank lobby, suddenly became much less cooperative. That remains the situation today.⁸

What we had uncovered was the existence of a highly lucrative banking business that had previously not been disclosed in any bank's annual reports, let alone in Treasury or Federal Reserve data bases or Congressional inquiries – even though this had actually become the big banks' *most lucrative* (highest risk-adjusted ROE) business *by far*.

This was the offshore business of "international private banking," whose core mission basically consisted of having reliable, secure, top-tier, "too big to fail" First World banks entice the elites of rich and poor countries alike to shelter their wealth tax-free offshore, usually in contravention of these home countries' laws, in many cases while lending heavily to the governments and banks of those very same "source" countries.

It soon became clear to this author that – in striking contrast to the situation with respect to currency demand or even the question of "where loans to developing countries went" -- securing any direct evidence on which countries generated the largest capital outflows, where private flight capital ended up, and how much it was worth, would be almost impossible without a combination of detailed case-by-case investigations and laborious indirect data triangulation.

That was 26 years ago. Since then the global offshore industry has more than quadrupled in size.

The Missing Data.

Like the labyrinth of the minotaur, the secrets of the offshore industry have many levels of protection. First, of course, private bankers, haven lawyers and accountants get paid handsomely to hide their clients' assets, identities, and even behavioral patterns. Collectively, they also maintain influential lobbies.

Second, bank regulators and central banks of most individual countries typically view private banks as key clients. So they have long permitted the world's top havens and banks to conceal the ultimate origins and ownership of assets under their supervision, especially those held in "off-balance sheet" trusts and fiduciary accounts.

Third, even though multilateral institutions like the Bank for International Settlements (BIS), the IMF, the World Bank, and the OECD that are supposed to be somewhat insulated from the political fray, they have been highly sensitive to the collective interests of "Wall Street & Co." They have never been willing to require financial

⁸ To attract foreign capital, most First World countries maintain elaborate income and estate tax preferences for so-called "non-resident aliens," and also for "non-domiciled" foreigners in the case of the UK and Switzerland, who are allowed to reside while paying very low income and wealth taxes.

institutions to fully report their cross-border customer liabilities, deposits, customer assets under management or under custody, by sector and country of origin, even at an aggregate country level.⁹

Interestingly, however, the BIS *does* gather such pair-wise detail for quarterly cross-border bank assets and loans, because it considers this useful for monitoring the stability of global banking system. It would technically be quite easy to collect the same data on the liability side, and to extend it to off-balance sheet customer assets and liabilities under management, administration, and custody.

But apparently the BIS considers the stability of developing-country finances a lower priority.

A detailed summary of the holes in existing official data with respect to sizing the offshore industry is provided in Appendix III.¹⁰

Old Estimates – “Capital Flight”

Since at least 1984, macroeconomists have toiled to refine the methods used to estimate capital flight and to extend it to a growing number of developing countries.¹¹ Oddly, two of the earliest studies of capital flight were by two IMF economists¹² and by economists at Morgan Guaranty Trust, the precursor to today’s JPMorganChase – a long-time key player in global private banking.¹³ Unfortunately, however, none of these studies focused on sizing or locating the stock of “offshore” wealth resulting from all this capital flight, or on estimating the size of the offshore industry. Still, the consensus of more than a dozen such studies is that hundreds of billions of dollars fled the developing

⁹ The Bank for International Settlement’s quarterly and annual reports do contain detail on *bank loans and other bank assets* by country of destination, but not bank liabilities or client assets under management. See BIS, “International Banking Statistics,” Quarterly reports, at <http://www.bis.org/statistics/rppb0910.htm>.

¹⁰ For example, see Appendix III, p9, for the holes in the BIS data.

¹¹ See, for example, Gerald Epstein (2005) Editor, Capital Flight and Capital Controls in Developing Countries. (Amherst: Edward Elgar, 2005), the most comprehensive estimates until this book. See also James Boyce and Leonce Ndikumana (2001) “Is Africa a Net Debtor. New Estimates of Capital Flight From Several Severely-Indebted Sub-Saharan African Countries, 1970-98,” Journal of Development Studies, Vol. 38, No. 2, pp. 27-56; Florian Kaufmann (2004) “A Critical Discussion of How to Measure Capital Flight: The Case of Argentina,” New School/UMass Graduate Workshop, November 2004; Kevin Chang, Stijn Claessens, and Robert Cumby (1997) “Conceptual and Methodological Issues in the Measurement of Capital Flight,” International Journal of Financial Economics, Vol. 2(1997), 101-11; Benu Schneider (2003a), “Measuring Capital Flight: Estimates and Interpretations,” ODI Working Paper 194, Overseas Development Institute; Edsel Beja Jr. (2004), “Capital Flight from the ASEAN Four: A Case Study on Indonesia, Malaysia, and the Philippines, and Thailand,” U Mass Amherst.

¹² See Mohsin S. Khan and Nadeem Ul Haque, “Foreign Borrowing and Capital Flight: A Formal Analysis,” IMF Staff Papers, V. 32 (4), December 1985, 606-628.

¹³ See Morgan Guaranty Trust, World Financial Markets, “LDC Capital flight,” March 1986.

world during this period –though a significant portion of the outflow were found to have been “round-tripped” back into those countries, particularly high-growth developing countries like China.

Old (Ad Hoc) Estimates – Consulting Firms

Absent direct evidence on the size and growth of offshore, in the interim, part of the estimation gap has been filled by a series of imprecise “guesstimates” by various management consulting firms, all with large-scale banking practices.

The first of these, by Merrill Lynch/Cap Gemini in 1997, relied on rough judgment and “a wide variety” of unspecified sources. It estimated the size of “offshore wealth owned by high-net worth individuals” (HNWIs) at \$5.5 trillion in 1996, supposedly up from just \$2.3 trillion in 1989.¹⁴ A year later they estimated the figure for 1997 was \$5.8 trillion. After that, they stopped making specific “offshore” estimates, while continuing to publish an annual “World Wealth Report” that provides estimates of total financial wealth – presumably offshore and domestic – for high-net worth individuals.

Although Merrill Lynch, acquired by BankAmerica during the financial crisis, has recently dropped out of wealth estimation, CapGemini continues to publish its ad hoc estimates. It has also been joined by Boston Consulting Group (BCG), McKinsey, and various smaller service providers to the private banking market. For example, in 2008 the Oliver Wyman Group, a financial consultant, estimated the global offshore private wealth owned by high-net worth individuals at \$8 trillion as of 2007.¹⁵ In June 2009 BCG estimated the volume of “liquid offshore assets under management” in 2008 at \$6.7 trillion, down from a peak of \$7.2 trillion in 2007.¹⁶ Scorpio Partners has also entered the fray with a long series of ad hoc estimates of its own.

A close look at these consulting studies finds many glaring omissions. For example, BCG’s 2009 estimates not only left out all of Africa, but all non-financial offshore assets held by trusts and foundations, which are typically a very large share of HNWI portfolios.¹⁷ Indeed, as we’ll see, the actual size of offshore financial wealth is far higher than any of these consultants claim.

¹⁴ See Merrill Lynch/ Gemini Consulting, World Wealth Report (1997), available at <http://dss2.princeton.edu/data/3161/>.

¹⁵ Oliver Wyman Ltd (2008), “The Future of Private Banking. A Wealth Opportunity?” at www.mmc.com/knowledgecenter/OliverWymanFuturePrivateBanking.pdf.

¹⁶ Boston Consulting Group (Sept. 15, 2009), “Global Wealth Report: Delivering on the Client Promise,” summary at <http://www.bcg.com/Media/PressReleaseDetails.aspx?id=tcm:12-28981>

¹⁷ See TJN, “On strong assumptions and other nonsense,” June 24, 2009, at <http://taxjustice.blogspot.com/2009/06/on-making-strong-assumptions-and-other.html>

Old Estimates – Governments and NGOs

Given the importance of the economic development and tax policy issues at stake here, one might have thought that the IMF and the World Bank would have devoted at least a few of their thousands of economist-person years to studying this issue.

To date, however, we can only find one explicit IMF estimate of the stock of “offshore private assets” – a modest \$1.7 trillion figure for 2000, with no clear methodology.¹⁸ In 2001 a former IMF Director of Fiscal Affairs did cite a “\$5-\$7 trillion” figure for the volume of offshore private assets, but declined to offer any more details.¹⁹

In 2000 the US State Department’s Bureau for International Narcotics estimated the assets of 50 offshore jurisdictions at \$4.8 trillion.²⁰ Then the OECD, which has supposedly been working on “harmful tax competition” by offshore havens since 1998,²¹ also in 2007 endorsed a “\$5-\$7 trillion” range.²² Around the time of the April 2009 G20 conference in London, when global anti-haven sentiments were raging, the OECD temporarily boosted its estimate to \$11 trillion, without offering a clear methodology.²³ But by September 2009 the OECD had retreated to summarizing a wide range of estimates produced by others.²⁴

As for NGOs, since the early 2000s there has been a rising crescendo of estimates related to the size of offshore.

- In 2000 **Oxfam** published a rough “\$6 to \$7 trillion” estimate for all private offshore wealth, without any further details.²⁵

- In 2005, a quick-and-dirty analysis by the Tax Justice Network (TJN,) entitled *The Price of Offshore*, estimated the value offshore private wealth at \$11.5 trillion as of June

¹⁸ IMF Publishing Global Portfolio Investment Survey (2000), at <http://www.imf.org/external/np/sec/nb/2000/nb0008.htm>.

¹⁹ Vito Tanzi, Australian National Radio, March 21 2001, at <http://www.abc.net.au/rn/talks/bbing/stories/s265977.htm>.

²⁰ “International Narcotics Control Strategy Report,” U.S. Department of State Bureau for International Narcotics and Law Enforcement Affairs (March 2000), at 565-66.

²¹ OECD (1998), “Harmful Tax Competition: An Emerging Global Issue,” <http://www.oecd.org/dataoecd/33/1/1904184.pdf>.

²² Jeffrey P. Owens, Director, OECD Center for Tax Policy and Administration, “Offshore Tax Evasion,” July 20, 2007, Global Policy Forum, at <http://www.globalpolicy.org/component/content/article/172/30123.html>.

²³ “OECD estimates \$11 trillion parked in tax havens,” Times of India, April 4 2009, at <http://www.business-standard.com/india/news/oecd-estimates-11-trillion-parked-in-tax-havens/353935/>

²⁴ See OECD (2009), “OECD’s Current Tax Agenda,” at <http://www.oecd.org/dataoecd/38/17/1909369.pdf>, p. 24.

²⁵ Oxfam (2000), “Releasing the Hidden Billions for Poverty Eradication,” at http://www.oxfam.org.uk/what_we_do/issues/debt.../tax_havens.htm.

2004, of which \$9.5 trillion supposedly consisted of offshore financial assets and \$2 trillion was non-residential offshore real estate. TJN used an interesting methodology that we will return to and expand on below.²⁶ Until now, this is still the largest published estimate for total offshore wealth.²⁷

- In 2009, **the author** developed estimates of the volume of capital flight and the value of offshore financial assets derived from leading developing countries for Oxfam GB, a document that was distributed at the April 2009 G20 summit in London, albeit rather quietly.²⁸

That study employed a version of the conventional “sources and uses” methods used by the author for global capital flight estimates published in his 1996 study of “bankers and money launderers.” To that basic method, the author added the notion of estimating the net value of “offshore wealth” accumulated by developing countries, first outlined at a TJN / AABA Conference in Essex in the UK, in 2006-2008.

The study estimated that during the period 1970 to 2007 at least \$150- \$200 billion of unrecorded private capital flight flowed out of the developing world each year. Using conservative assumptions about reinvestment rates and investment yields, these flows suggested that accumulated offshore wealth stock owned by developing country residents was worth at least \$6.2 trillion by 2007. This included only wealth from developing countries, which is at most 25 to 30 percent of all offshore private wealth²⁹.

This large figure for developing country wealth alone implied that *total* offshore private wealth was much higher than other estimates, and it implied that developing countries might be losing as much as \$120-\$160 billion per year in lost tax revenue on the interest and other income generated by all this unreported anonymous wealth – more than the entire global total of foreign aid from OECD countries. Most of this unreported income was either retained abroad and reinvested or spent on shopping trips in Paris, London or Miami.

It was also interesting to compare this initial \$6.2 trillion estimate for developing country “flight wealth” with the \$3.4 trillion gross foreign debt owed by all developing (low- and middle-income) countries as of 2007. After taking flight wealth into account,

²⁶ TJN International (2005), “The Price of Offshore,” at http://www.taxjustice.net/cms/upload/pdf/Price_of_Offshore.pdf.

²⁷ As discussed below, TJN (2005) based its estimate on scaling up BIS data on offshore deposits by “nonbanks” by an average ratio of “cash and bank deposits” to all financial assets that was based on Merrill Lynch/ CapGemini’s annual estimates of asset allocations for high-net worth portfolios.

²⁸ “Tax haven crackdown could deliver \$120bn a year to fight poverty – Oxfam,” March 13, 2009, at <http://www.oxfam.org.uk/applications/blogs/pressoffice/?p=3912>.

²⁹ See the regional breakdowns of the offshore wealth estimates by the consulting firms. Their estimates are consistent with this market share for the source countries in our sample.

therefore, **it became even clearer that developing countries as a whole didn't really face a "debt" problem, but a huge "offshore tax evasion" problem.**

On a "net of foreign reserves" debt basis, the situation was even more striking. After allowing for foreign reserves owned by developing countries, as of 2007, the most recent year for which the data was then available, low-and middle-income developing countries as a group had minus \$415.1 billion of net foreign debt -- even before taking this offshore flight wealth into account. The negative number is mainly because higher-growth countries like China and India have managed to accumulate over \$2.5 trillion of reserves. Even omitting China and India, by 2007 all other developing countries owed just \$979 billion of net-of-reserves foreign debt, compared to \$5.3 trillion of non-Chinese offshore flight wealth.³⁰

▪ **Transfer Mispricing.** Another offshore activity that has recently been the subject of increased estimation efforts by economists is corporate transfer mispricing. This work focuses on the fact that in addition to capital flight and offshore haven abuse by individual taxpayers, there has also been a trend for MNCs to slash their corporate taxes by shifting profits and royalty payments to low-tax havens and losses and interest expense to high-tax jurisdictions. For example, according to the IRS, report, from 1994 to 2004 US companies more than tripled their foreign profits, parking nearly 60 percent of it in tax havens.³¹

Some of these transfer pricing abuses have to do with over-invoicing of goods imports and under-invoicing goods exports, so as to minimize income in higher-tax countries and shift unreported profits abroad. Other transfer pricing abuses involve the (below-market) transfer of intellectual property rights (know-how, brand value, films, patents, and software) to low-tax jurisdictions.

Accordingly Global Financial Integrity (GFI) since 2006 have published a series of estimates of gross financial outflows from developing countries that rely heavily on estimates of goods transfer mispricing. In 2008 Christian Aid estimated the annual cost of such corporate transfer mispricing to developing countries, in terms of lost tax revenues, at \$160 billion per year.³² These losses are supposedly in addition to the lost tax revenue on unreported individual income, offshore interest and dividends due to unrecorded flight.

For our purposes, these estimates of transfer mispricing *flows* do not lead directly to estimates of the size and growth of offshore private wealth *stocks* or unreported income generated by these stocks. They are subject to many technical problems – for example,

³⁰ World Bank (2009) data on gross external debt and foreign reserves by country; our analysis.

³¹ See US IRS, "Remarks by Commissioner Douglas Shulman before the 21st Annual George Washington University International Tax Conference, December 8, 2008."

³² Christian Aid (2008), "Death and Taxes: The True Toll of Tax Dodging," at http://www.christianaid.org.uk/caw08/Report_08_Executive%20Summary.pdf

GFI's estimates pertain only to flows, not stocks or investment earnings; they leave out all negative numbers from the calculations; and in most cases they only date back to the year 2000.³³ However, they have certainly helped dramatize this aspect of the offshore problem.

Summary: Key Limitations, Existing Estimates

All told, these early estimates of offshore activity reflect a growing consensus that offshore wealth and the income that it generates are significant and growing, and that they are largely missing from official statistics, conventional estimates of income and wealth inequality, and most important, the global tax base.

However, the flurry of estimates produced to date have many limitations.

- **Fuzzy Methods.** In many cases the estimation methodology has been ad hoc and sometimes judgment-based, making it difficult for independent observers to replicate and verify it.
- **Technical Errors and Omissions.** In some cases, whole categories of offshore wealth have been omitted – for example, in the case of the consulting studies noted above, assets held in trusts and foundations for private beneficiaries are omitted entirely. In other cases, such as GFI's transfer pricing analysis, we have seen outright – if “fruitful” – technical errors.
- **Under-Used Data.** A variety of other potentially relevant, publically accessible data types have not yet been brought to bear the task of estimating the size, growth, and distribution of offshore activity – for example, certain data on cross-border investments in BIS reports; data on local holdings of currency, gold, and other “liquid” wealth; the composition of private banking client portfolios; “enabler” activities, staffing, and productivity by haven location; and private banking assets under management, considered below.
- **Proprietary Modeling.** Partly because of competitive behavior among official institutions, academics and members of the NGO communities, there has been a tendency to redo similar data analyses over and over again, without the kind of open, collaborative peer review that might be more conducive to generating cumulative progress on models and methods. There has also been a tendency to be somewhat vague about key estimation methods, data sources, and assumptions. Finally, there has no doubt been a great deal of redundant analysis of the very same data sets. This contrasts sharply with the more “open” approach to models, estimates and data in, say, environmental sciences.

³³ See the discussion below – “Estimation Methods.”

- **Official Secrecy.** The key problem is missing data. Much of the data required for this kind of analysis appears to be either already on hand or readily available, should central banks, treasuries, and multilateral institutions like the BIS and the IMF decide to make it available – or at least analyze it internally and aggregate it a form that is into acceptable for publication. A key action item is for NGOs – not to mention developing countries – to press such institutions for more transparency.

Process Improvements – Estimation Research

A key objective of this project, beyond generating new estimates, is to establish a more explicit framework for making such estimates and a more open process for researchers to collaborate.

We have established a web site on “Estimating the Price of Offshore” where all the data sets and models employed in this paper will be made publicly available. This will permit researchers to develop variations of their own, avoid redundancy, and even more important, trade suggestions for improvements, and share new data sources. The web page is here.

http://www.taxjustice.net/cms/front_content.php?idcatart=122&lang=1

We also plan to establish facilities for researchers in this area to collaborate.

5. NEW ESTIMATES

Some background

Pending changes in research collaboration, we have tried to address all the other key flaws in existing estimates -- technical errors and omissions, the lack of explicit methodologies; variations in data sources, methods, and time periods that makes it difficult to compare alternative estimates; and excessive reliance on a limited range of data types and estimation methods.

Scope of the Estimates

At the outset it is worth restating our core focus, which is on measuring *long-term unrecorded cross-border private financial capital flows and stocks* that have contributed significantly to the erosion of the domestic tax base, especially in developing countries.

There are several very different sources for these flows and stocks – that is one reason why I prefer to call them ‘unrecorded capital flows and stocks’ rather than “capital flight.”

One key source is underreported capital flows that have been secreted offshore and invested abroad beyond the reach of domestic tax authorities.

This broad definition focuses on unrecorded capital flows without pre-judging the motives for it.³⁴ Among the possible motives are (1) short-term speculation (“hot money”), (2) longer-term portfolio diversification, (3) asset protection (including protection against political risks and illegality), and (4) more dubious motives, like money laundering, income tax evasion, “round-tripping” (taking money offshore, dressing up in secrecy structures then pretending to be ‘foreign’ investors in order to take advantage of tax breaks and exchange rates only available to “foreigners”); back-to-back lending games; export subsidy fraud; avoidance of import duties; corruption and more.

All these motives have been at work through the period we are considering, so the best explanation is “all of the above.”

However, since net outflows from developing countries have continued over sustained periods of time, and since little offshore wealth or the earnings that it produces have been repatriated, the most important factors driving it are not those that drive “hot money,” but long-term de-capitalization.

For the interested reader, Appendix II provides my critical review of existing “explanations” for “capital flight” in the economics literature.³⁵

As discussed below, our best estimate is that least 25-30 percent of these funds, averaging several hundred billion per year since the 1970s, have come from developing countries.

Another key source is under-taxed corporate profits and royalties that have been parked offshore in low-tax havens by way of rigged transfer pricing schemes. While estimates for the value of such transfer pricing abuses are more problematic, they are likely to be significant.³⁶

³⁴ This is in contrast to other authors like Cuddington (1986), who have limited their attention to flows that are motivated by some specific factor, like short-term speculation. Since there are so many other possible motives for unrecorded capital, and since the data needs so much work, it seems more appropriate to be a little more open-ended about the measurement.

³⁵ See Appendix II: “Explaining Capital Flight.”

³⁶ See, for example, the significant original research on corporate transfer pricing abuses by Dr. Simon Pak:

<http://www.russiasjournal.com/node/18073>; <http://portal.acm.org/citation.cfm?id=780978> ;

A third source is a myriad of illicit activities in the global underground economy – corruption, fraud, insider trading, drug trafficking, “blood diamonds,” and innumerable other for-profit crimes. Even for source countries with zero or very low income taxes, like Russia, Saudi Arabia, and most other Middle Eastern oil producers, havens provide a convenient way to launder all this illicit loot. While banks and other financial intermediaries are supposed to follow “know your customer” rules that prevent this kind of chicanery, in practice the regulations are full of loopholes -- rather like, appropriately enough, Swiss cheese.³⁷

Narrow scope, conservative estimates.

Despite including all these sources, our focus so far is still much narrower than the full scope of “the price of offshore.” There is a long laundry list of economic bads enabled by haven jurisdictions: not only tax evasion but also fraud, bribery, illegal gambling, money laundering, and traffic in contraband: drugs, sweatshops, human and sex trafficking, arms, toxic waste, conflict diamonds, endangered species, bootlegged software...the list is virtually endless.

In principle, all these “bads” deserve to be included on the social balance sheet in any overall assessment of the offshore industry. In practice, however, we will focus here on what we can get a handily on. And given the sheer scale of tax evasion facilitated by offshore havens, however, it is clearly one of the main anchors for the system, which underpins all these other dubious activities.

We also omit several important types of non-financial wealth that are collectively quite sizeable, as well as important for tax justice and development policy -- notably human capital, net claims on real property (including land and natural resources), and “intangibles” like claims to patents, trademarks, brands, technical know-how, and other intellectual property. In all these cases the role of cross-border flows and “offshore” havens appears to have been increasing: for example, recent exposes concerning redomiciliations of intellectual property to low-tax jurisdictions by leading US pharmaceutical and computer companies, or continuing concerns about “Third World brain drain”.

Do tax havens provide public goods, as well as ‘bads’?

Defenders of the status quo will argue that this paper only addresses “the price of offshore,” not the value they say it provides. They would argue that havens, for

³⁷ Cf. the tortured history of the “qualified intermediary” regulations for major banks in the US: <http://www.hg.org/article.asp?id=5934>.

example, help people dodge noxious government rules and regulations, provide escape hatches for the victims of oppressive regimes, help wealthy elites evade “confiscatory” taxation, diversify their domestic portfolios, enjoy the fruits of their hard labor undisturbed by the irritants of taxation and regulation, and at the same time compelling nation-states to engage in “tax competition,” which (they argue) force them to become more efficient in delivering government services.

Such tradeoffs are not unknown. For example, it is very hard to defend “tax enforcement at any price” when the tax collector is the Burmese junta, Gaddafi’s Libya, or perhaps even the City of Chicago.

Our sense, however, is that most countries operate very, very far from this hypothetical “tax compliance vs. freedom-and-prosperity margin,” along which increased tax competition and reduced compliance automatically leads to increased liberty, entrepreneurship, and growth. We at the Tax Justice Network feel we have, in a variety of different fora, effectively demolished pretty much every one of their arguments for these supposed benefits³⁸.

The arguments of the defenders of tax havens are especially problematic once we consider the facts that the proceeds of non-compliance tend to flow not to the best and brightest, but to the most unsavory; that non-compliance is contagious, so aggressive non-compliance by elites promotes non-compliance by everyone else except the poor, who end up footing the bill; that most of the proceeds of capital flight and tax evasion are never repatriated to source countries but sit idle in relatively-low-yield offshore investments; and that when the public sector has been starved for capital (perhaps having had to rely on high-cost loans or inflationary finance rather than tax revenue), the rate of return on public investments is often higher than on private investment. Tax, by producing better roads and educated populations and so on, can ‘crowd in’ private investment, rather than crowd it out as many people believe.

Estimation Methods – and Some Results

As noted, to overcome the limitations of previous estimates, our strategy has been to triangulate on estimates from several different angles. As mentioned, our four key models are as follows:

- A standard version of the “sources-and-uses” model for country-by-country unrecorded capital flows;
- An “accumulated offshore wealth” model;
- An “offshore investor portfolio model,” based on cross-border assets data; and

³⁸ For instance, on the common claim that tax haven secrecy can help citizens escape unjust despots and their like, see our article “The Non-perils of information exchange,” July 2009. <http://taxjustice.blogspot.ch/2009/07/non-perils-of-information-exchange.html>

- Direct estimates of offshore assets under management for the world's top 50 global private banks.

The paper supplements these with other evidence, including

1. Data on so-called "transfer mispricing,"
2. Data on the cross-border demand for liquid "mattress money" like reserve currency and gold, part of which may move through offshore markets
3. A review of market research by leading consulting firms on the size of the "offshore" private banking market

Another reference point is Credit Suisse's global wealth estimate for mid-year 2011, which is probably the most comprehensive and most recent estimate of global wealth. It puts total global wealth at \$231 trillion, including financial assets and non-financial assets (principally housing and land) at market value³⁹. Credit Suisse does not offer a figure for offshore holdings but the ratio of this \$231 trillion figure to TJN's \$21-32 trillion figure headlined above is roughly 1:10, supporting our view that our new estimates are reasonable and conservative.

This section of the paper will review the estimation methods in some detail. The following section on "Flight Patterns" summarizes the results of the capital flows and wealth models.

The methods in detail.

(1) Unrecorded Capital Flows: "sources-and-uses."

This paper employs latest data from the World Bank/IMF, the UN, central banks and national accounts to explicitly model capital flows for each country, for 139 key "capital source" countries, mostly low-middle income countries, for which such time series data is published. As of 2010, these countries in our sample accounted for 85 percent of the world's 6.89 billion population, 51 percent of its \$76.7 trillion PPP-adjusted gross national income, \$4.1 trillion of foreign debt, and \$6.8 trillion of foreign reserves, or 75 percent of the world's total.

Data Sources. The specific variables included in the country models of unrecorded capital flows – changes in foreign reserves, the current account balance, gross external

³⁹ The Credit Suisse estimate uses Household Balance Sheet data for selected countries, combined with household income and expenditure data, and supplemented by an estimation of wealth holding patterns within nations; it also took information gleaned from various "rich lists" to fill information gaps on wealth holdings at the top of the distribution. From *Global Wealth Report, 2011*, Credit Suisse Research institute: https://infocus.credit-suisse.com/data/product_documents/shop/323525/2011_global_wealth_report.pdf

debt stocks (of more than 1 year duration), net foreign investment (BOP basis), portfolio investment (net of covering transactions), nominal gross national income, price deflators – are all annual data, initially in US dollars. (See the specific country spreadsheets).

In most cases these data are from the World Bank's World Development Indicators database. For a few countries, as noted on the spreadsheets, data for recent years had to be derived from other sources, including central banks and treasuries. Estimates of the currency composition of foreign debt, debt reschedulings, and changes in arrears are also generally from World Bank/ IMF sources, although in a few cases (e.g., Singapore) central bank data was used to supplement these estimates.

Time Periods. As shown in each country spreadsheet, in most cases individual country data are analyzed for the entire period 1970-2010 inclusive, although the available time series are shorter for a subset of countries, notably the FSU states, China, and some sub-Saharan countries.

Country Flows Model Details. The basic country flows model provides estimates of nominal and real offshore capital flows for the period from 1970 to 2010 inclusive, correcting them for factors.

Several alternative measures of unrecorded capital flows flight are available in the academic literature on this subject. These are voluminous, compared with the number of empirical studies.⁴⁰

Our own preferred measure is an adjusted version of the so-called “sources and uses” method.⁴¹ Basically this adds up a country's measured sources of foreign capital – foreign loans, net direct investment, and net portfolio investments – and compares them with recorded uses, including financing current account deficits and increasing official reserves. A simple Russian example is provided in Appendix III.⁴²

In principle, the difference between these recorded “sources of foreign capital” and “uses of foreign capital” may be attributed to unrecorded net capital outflows. Of course each and every ingredient in this yardstick is subject to measurement error.

⁴⁰ For an acerbic summary of the difference between “armchair” and “investigative” economics, see Appendix III, p10. For a review of alternative measures of capital flight, see Florian Kaufmann, op. cit., footnote 2. Most of the alternative measures of “capital flight” appear to be highly correlated. For example, in the case of Mexico, the simple correlation of Federal Reserve's net currency payouts from the San Antonio and El Paso branches (in real \$1980) with a “sources and uses” measure of Mexico's flight from 1970 to 1987 was .69. For changes in U.S. bank liabilities reported as owned by “non-bank” Mexicans, the correlation was .67. For an “errors and omissions” measure of flight – the sum of short-term private capital outflows plus errors and omissions from the balance of payments account -- the correlation was .67. Statistical regression that controls for other variables yields even stronger results.

⁴¹ The key assumptions for this capital outflow model are summarized in Appendix III, pp10, 11

⁴² See Appendix III, p17

However, over time and across dozens of countries, the errors should more or less cancel out.

We have preferred to develop our own estimates of capital flight to have consistent estimates and a standard period for comparison. On the “sources” side, our measure starts with World Bank data for dollar value of gross external debt stocks by year, as well as net foreign direct investment (on a balance-of-payments basis) and net foreign portfolio investment, excluding covering transactions by foreign Central Banks. The World Bank’s annual debt stock estimates already include an estimate of foreign portfolio debt investments and trade debt.

Exceptional Financing. One necessary adjustment to the World Bank debt stock numbers is for exceptional financing, an accounting entry made when countries have trouble servicing their debts -- the sum of net interest rate arrears, debt forgiveness, and capitalized interest. As noted by Kaufmann (2004), this entry is “fictional finance,” in the sense that it amounts to an arbitrary book-keeping entry, not actual cash flow. The World Bank’s debt series includes exceptional financing in its debt series, but not in reserves, while the IMF includes it in its measure of “reserves and related items.” For troubled debtors like Brazil, Argentina, Nigeria, and Russia, the numbers are large enough to lead to nonsensical results if exceptional financing is included. We deducted it from the World Bank debt stock series.

Debt Flows Vs. Changes in Debt Stocks. The World Bank also provides a series of “debt flows” by year for some countries, for 1989 on, but there are large unexplained discrepancies in this data, compared with “first-differencing” our adjusted debt stock numbers, and it gives implausible results in the case of several countries, so we decided to rely on the adjusted debt stock numbers.

Exchange Rate Adjustments. What is “foreign debt,” anyway? The World Bank defines it with respect to the residency of the borrower, not the currency in which it is denominated, so it is important to keep an eye on currency variations in distinguishing “real” from “nominal” capital flows.

Some researchers on capital flows (Boyce and Ndikumana *op.cit.*) adopted the practice of adjust the World Bank’s long-term debt stock numbers for changes in exchange rates, in cases where there is a substantial amount of non-dollar-denominated long-term debt. If, say, the dollar appreciates relative to the yen, the actual dollar value of yen-denominated long-term debt and the flows of new principal associated with it would increase, while the Bank’s dollar-denominated series would be unchanged.

I have grudgingly followed this practice here though it is laborious, given the number of countries and currencies involved, and though it turns out not to make all that much difference to the estimates. Indeed, this result is consistent with the evidence from Boyce’ and Epstein (*op. cit.*) own study, which shows that the effects of exchange rate

adjustment to debt on capital flow estimates are small for most countries, mainly because movements in multiple currencies often cancel each other out, especially over long periods of time. In addition, most large debtors now hedge against currency fluctuations. Nevertheless, for the sake of academic purity, we've done the theoretically correct thing.

Debt Reschedulings and Changes in Arrears. Depending on the country, these can be very important, although most estimates to date have largely ignored them. From a balance of payments accounting standpoint, for example, declining arrears are like increased reserves or a rising current account deficit – a “use” of foreign funds. We have incorporated them in estimates for all 139 countries.

(2) The Accumulated Offshore Wealth Model.

Building on the country models developed to estimate capital flows, our second key model uses a simple framework to estimate how much these accumulated flows might be worth over time.

This addresses the obvious problem with “flow-based” estimates – they don't help us account for the rise of the global offshore industry and its assets under management over time. Nor do they acknowledge the reality that – thanks to the private banking industry's sustained lobbying -- offshore investors typically are permitted to enjoy the tax-free perks of “non-domiciliation” or non-residency in countries like the US and the UK, at least with respect to interest on debt and bank deposits.

The “base case” version of this model assumes that a significant portion – 50 to 75 percent, on average -- of these tax-free earnings are not repatriated to source countries, but are reinvested abroad in relatively “safe,” low-yielding investments, denominated in traditional reserve currencies like US dollars. This is consistent with the fact that most haven investments are made for longer-term motives like asset protection, money laundering, and diversification, not just short-term speculation, with low turnover and high reinvestment rates.

We further assume that 100 percent of the initial outflows are net of source-country income taxes – otherwise they presumably would not be “unrecorded.” Subsequent offshore earnings are not repatriated and are not subject either to domestic tax or foreign taxes.

Reflecting their appetite for secure low-risk investments, we assume offshore clients earn a modest 6-month CD rate on their accumulated foreign capital, which their private bankers have already “grossed down” to reflect the costs of offshore management.

This basically assumes, conservatively, that over the long haul, a large share of flight flows has been invested in relatively-secure portfolios of US and Euro-denominated assets, mainly bank CDs. Until the late 2000s, the conventional wisdom among flight capitalists was, “What could be safer than “too-big-to-fail” US, Swiss and UK banks?” Of course there was also investing in Park Avenue, Mayfair, Geneva, and South Beach real estate, high-flying hedge funds, Internet startups, Panama ocean front, film productions, rap musicians and drug deals. But our assumption permits us to establish a conservative baseline for portfolio returns. As one Citibanker in Mexico City said, “The money my clients put offshore is for safe-keeping...When they want 200 percent returns, they keep the money here.”⁴³

Obviously there is much more work to do with exact modeling for specific groups of investors, time periods, and rates of return. For example, appetites for risk and liquidity may vary considerably by region, while the low – if stable -- nominal rates of returns on offshore investments assumed here may have been wildly high or low in different periods.

On the other hand, based on our interviews with private bankers and other offshore industry experts, for the median offshore private banking customer, these assumptions are not a bad start. Based on our interviews with private bankers and other offshore industry watchers to date, this kind of “ideal Swiss customer” is much less interested in maximizing short-term returns than in securing an offshore nest egg – typically he or she is often taking quite enough risk, thank you, back home.

But of course these assumptions are easily modified, assuming we have evidentiary reasons to do so.

China’s Story. There is one counter-example, or at least a potential qualification to this offshore wealth accumulation model, however. This is the case of China. As noted below in our review of the results, China, including the mainland and the Hong Kong SAR, have recently been at the top of the list in terms of both unrecorded capital outflows and estimated “flight wealth.” As of 2010, for example, China had accumulated real outflows (in \$2000) of \$743 billion, the highest in East Asia, while the Hong Kong SAR recorded outflows of \$125.9 billion. If we simply combine these flows and apply the wealth accumulation model to them, the result is that Chinese investors supposedly now account for nearly \$1.2 trillion of offshore private wealth – an implausible 13 percent of the global total.⁴⁴

The real problem here is that, just as in the case of China’s spurious trade misinvoicing noted above, much of its unrecorded capital transactions with Hong Kong are probably

⁴³The Citibanker quote is from my interview with “Mexican Citibanker,” July 1988.

⁴⁴ See Appendix III, p47

double-counted. A significant amount of China's apparent capital flight is actually just "round-tripping" by way of intermediary companies based in Hong Kong and a few other key havens, notably the British Virgin Islands.)

This still counts as part of the "offshore industry," but for purposes of our wealth model, it begs the question of how large a factor such round-tripping is not only for China, but for other source countries, especially for those on our "top 20 offshore wealth list."

However, we'd argue that China's situation with Hong Kong may be unique. While, for example, key Latin American countries like Venezuela and Mexico have long enjoyed close ties with their closest haven, the US, and we are aware of some "round-tripping" by investors in Brazil, we also know for a fact that wealthy investors from these source countries account for a significant share of US bank deposits owned by non-residents.

Finally, we can use our estimates of Hong Kong's unrecorded capital to place an upper bound on the maximum amount of round-tripping with respect to the mainland – at most, it is about 17 percent of mainland China's gross unrecorded capital outflows. This permits us to adjust China's accumulated wealth estimates accordingly. It also provides a reasonable "maximum estimate" for the likely share of round-tripping by other source countries.

(3) Analysis of Private Banking Assets

As we've seen, the accumulated offshore wealth model opened the door to many other possibilities, including an analysis of reinvestment earnings on offshore wealth.

For decades, First World private bankers employed by the top 50 or so institutions have orchestrated the systematic erosion of income and wealth tax bases in high- and low-income countries alike. They have assiduously recruited the world's wealthiest people as their clients, including tens of thousands of developing countries. They have served as senior pilots in "Capital Flight Air," helping these clients move a significant share – more than half, in the case of Latin America and some Asian countries – of their liquid capital to offshore accounts under the cover of shell companies and trusts, beyond the reach of domestic tax authorities. They have enabled clients to move it, hide it, invest it, manage it, spend it, and make use of it remotely on the fly.

All told, the sophisticated "tax injustice" network that these institutions have constructed now employs fewer than a million people all over the planet.⁴⁵ But this is an influential million – they are the systems architects, operators, and managers of the

⁴⁵ Switzerland probably has the largest number of direct employees in private banking – about 200,000, according to the Swiss Bankers Association. The global industry estimate is based on our detailed analysis of individual havens and private banking institutions. The industry also creates indirect demand for other business services, including law firms, accounting firms, office services, and travel. We have allowed for this in our estimate.

“plutonomic system” that Citigroup analysts described quite in an infamous, now suppressed, 2005 memo.⁴⁶

While there are now over 500 private banks, hedge funds, law firms, accounting firms, and insurance companies that specialize in offshore, the industry is actually very concentrated. Most of its employees work directly or indirectly for the world’s top 50 private banks, especially the top 21 that now each have private cross-border “assets under management” of at least \$100 billion each.⁴⁷

In short, this comparative handful of major private banking institutions now accounts for 62 to 74 percent of all offshore private wealth. Many readers will recognize the names of the dominant players, as they have done for decades: UBS, Credit Suisse, Citigroup/SSB/Morgan Stanley, Deutsche Bank, BankAmerica/Merrill Lynch, JPMorganChase, BNP Paribas, HSBC, Pictet & Cie, Goldman Sachs, ABN Amro, Barclays, Credit Agricole, Julius Baer, Societe General, and Lombard Odier.

To address this basic fact about the offshore market, we have undertaken a systematic analysis of cross-border private banking assets under management at the top 50 international private banks for the period 2005-2010. Our data sources include company annual reports and 10Ks, investment analysts, interviews with private banking industry experts, industry watchers like Wealth Briefing News and Money Laundering Alert, and a survey of recent market research studies for the private banking industry.

The results are readily summarized.

First, as of December 2010, by our estimates, the world’s top 50 global private banks alone had \$12.06 trillion of private cross-border financial wealth under management. This compared with 2005, when our estimate is that the top 50 managed \$5.4 trillion – an average annual growth rate for the industry of nearly 16 percent, despite the world economy’s ups and downs.

Nor are these all the client assets that these institutions handle. There are also bank deposits, which are usually included under managed assets, as well as “assets under custody and administration,” including brokerage assets. Depending on the year, these additional assets typically add at least 25 percent to the total. Allowing for this, as well

⁴⁶ See www.scribd.com/.../Citigroup-Oct-16-2005-Plutonomy-Report-Part-1.

⁴⁷ As of July 2008, before the crash, Euromoney estimated total assets under management for the global private banking industry as a whole at \$11.8 trillion. See: <http://www.euromoney.com/Article/2093990/Private-banking-Methodology.html>. By September 2009 this figure had fallen to \$11.1 trillion. Our sample of the top 50 banks accounted for about \$8 trillion of this. As noted in the text, in addition to AUMs, of course, there are also assets under custody, deposits, and client brokerage assets “under administration,” which are on the order of 50 to 80 percent greater than AUMs. So these figures are all consistent with our estimated \$20 trillion for 2009.

as for underreporting and other data problems, these figures are consistent with our overall \$21 trillion to \$32 estimate for global offshore financial assets as of 2010.

Second, the top ten banks in this group are remarkably stable – the Swiss banks UBS and Credit Suisse occupied the lead positions in both years, and 7 of the top 10 remained in the top tier. Notable new additions to the leaders were Barclays, the ultra-private Geneva bank Pictet, and BankAmerica, by way of its Merrill acquisition; notable decliners were Citigroup and ABN Amro.

Third, the top ten banks grew even faster than the industry as a whole, an AAGR of over 20 percent per year during this period, sharply increasing their share of the group's assets under management from 42 percent in 2005 to more than 51 percent in 2010.

The irony here is that every one of these leading global banks, except Pictet, were deemed “too big to fail” by their governments in 2008-2010, and collectively received hundreds of billions in taxpayer-financed capital injections, standby credits, loan guarantees, toxic asset guarantees, low-cost loans, and the US Treasury's February 2009 swap deal with Switzerland.⁴⁸ They benefitted greatly from the \$80 billion AIG bailout and the virtually-zero real interest rate environment established by the world's central banks. Without these “too big to fail” government subsidies, several would have disappeared.⁴⁹

Did the Treasury Departments around the world not understand that these very same banks are leading the world in enabling tax dodging – indeed, to some extent, precisely because offshore investors know that they have been under-written by their Treasury Departments?

(4) The Offshore Investor Portfolio Model.

Our last model is another relatively simple, data-focused model of offshore investor portfolio behavior. It is based on a combination of BIS data on cross-border deposits and other asset holdings by “non-bank” investors, an analysis of portfolio mix assumptions made by wealth industry analysts, and interviews with actual private banks.

⁴⁸ From August 2008 through August 2009, the government aid received by the top 21 private banking institutions as a group totaled at least \$393 billion of standby credits, \$939 billion of toxic asset guarantees, and \$592 billion of government capital injections. Government aid to banks, Europe and the US, US Federal Reserve, US Treasury, HM Treasury, and other central bank official sources, our analysis.

⁴⁹ It is interesting to note that the precursors of Citigroup, JPMorganChase, BankAmerica, and Goldman Sachs were all deeply involved in lending to finance stock market speculation in 1928-29. Citibank's chairman at the time, “Sunshine Charlie” Mitchell, was described by a US Senator as “more than any 50 men, responsible for the stock market crash.”

All this yields a range of “portfolio scale-up” factors that can be combined with reported BIS assets data to yield another estimate for the size of offshore wealth.

Roots of the model: TJN’s Fruitful Errors. Our model is rooted in TJN’s original 2005 estimate for offshore private wealth of \$11.5 trillion, which included \$2 trillion of non-residential offshore real estate and \$9.5 trillion of offshore financial wealth. Until now, this is still not only the largest estimate to date, but also the only one that was made with even a rudimentary portfolio model.

TJN based its rough estimate on the simple procedure of scaling up BIS data on offshore deposits by “nonbanks” by an average ratio of “cash and bank deposits” to all financial assets that was based on ML/CapGemini’s annual estimates of asset allocations for high-net worth portfolios.

Unfortunately, TJN made several simple errors. These contributed, if anything, to a substantial *underestimation* of the size of offshore. However, the basic methodology can be refined and extended to deliver yet another triangulation.

TJN’s 2005 estimate contained several errors, all of which biased it downwards. First, it relied on the wrong line item for offshore deposits, using a total of US\$ 2.7 trillion.⁵⁰ The correct comparable figure for offshore deposit liabilities by nonbanks for June 2005 was \$4.68 trillion. By June 2007 this had grown to \$7.43 trillion, dropping back to \$7.01 trillion as of June 2010, under the impact of the economic crisis.⁵¹

Second, to estimate total offshore financial assets, TJN used a 3.5 “liquidity ratio” to scale up this cross-border deposits figure to total financial assets. This was based on a 2004 study of global financial asset demand by McKinsey & Co., which found that the ratio of “cash” (bank deposits) to total financial net worth in high-net worth investor portfolios had averaged 3.3 to 3.85 over the preceding 4 years.

TJN therefore assumed a 3.5 ratio to scale up its deposits estimate to financial net worth. This was despite the fact that it was hard to reconcile McKinsey’s estimates for deposits with those of BIS, since the McKinsey numbers inappropriately included a huge amount of inter-bank deposits, whose ratios to financial assets had nothing to do with the behavior of nonbanks.

In fact, ML/ CapGemini (ML/CG) has estimated actual liquidity ratios for high-net worth individuals with more than \$1 million in net financial assets directly for June 1998, December 1998, June 2002, and each successive year through 2010. The median value

⁵⁰ See TJN (2005), op. cit., “The Price of Offshore,” p. 1, which incorrectly use “\$2.7 trillion” for the value of “offshore deposits” in June 2004. The actual figure for “offshore deposits by nonbanks” was \$4.05 trillion. (See BIS Quarterly Survey, December 2004, Table 1.)

⁵¹ This BIS data on cross-border deposit liabilities is limited to reports obtained from just 30 offshore financial centers, and may therefore be regarded as conservative.

for 1998-2010 was 4.6, and for 2004-2005 it topped 4.9. (See ML/CG, World Wealth Reports, *op. cit.*) Only in years of declining stock markets like 2002 and 2008-9 did the liquidity ratio dip below 4. For purposes of our estimates here, 2010 was basically a year when all the key stock markets in the US, Asia, and Europe were recovering nicely, signaling (prematurely) a recovery.

There *might be* a case that ML/CG's estimates of these "average" liquidity ratios for HNWI's should be taken as an *upper bound* for offshore financial investments, on the argument that offshore funds are "security blankets" for more risk-averse investors. We've doubled-checked this by examining the size of private banking client's "invested assets" under management relative to their cross-border deposits for several private banks that are leaders in the offshore market, and publish this data, including UBS and Credit Suisse. For these institutions, "liquidity ratios" equaled or exceeded the same-year liquidity ratios implied by ML/CG's average HNWI portfolio allocations.

In our estimates, we have treated the ML/CG-based liquidity ratios as upper bounds, and have set a conservative lower bound at 3.0 ratio, much lower than the 3.5 originally used by TJN. This 3.0 ratio is below the ML/CG portfolio allocation estimates for all but one year in the 1998-2010 period – 2002, when it equaled 3.0. It therefore establishes a super-conservative floor under our non-banks deposits multiplier.

Of less interest to our focus here -- which is on financial wealth -- while TJN also allowed that non-residential real estate holdings might be another important component of offshore wealth, their \$2 trillion estimate for 2005 seems low relative to the corrected portfolio size.

Finally, TJN also ignored the role of so-called "alternative investments" and "collectibles" in HNWI portfolios, including hedge funds, art, and private equity. While we lack specific information on the share of *offshore* portfolios *per se* accounted for by such illiquid investments, for real estate and non-collectible alternatives, the respective median portfolio shares reported by ML/CG for the period 1998-2008 were 17 percent and 10 percent respectively, with ranges of 15%-24% and 7%-20%.

In sum, while further research on offshore HNWI portfolio allocations is warranted, the basic TJN methodology is worth developing. For purposes of this paper we have checked the range of liquidity ratios used above with private bankers and industry sources, and they have confirmed that they are plausible.

Revised Portfolio Model Estimates. As for TJN's original estimates, when the errors are corrected, the most likely quantity of private offshore financial assets in June 2004 was not \$9.5 trillion, but \$12.1 to \$20 trillion, depending on whether we use the very conservative 3.0 liquidity multiplier or something more realistic.

Since then, offshore deposits by nonbanks nearly doubled from 2004 to December 2007, when the global economy took a tumble. During that period, offshore financial assets may have grown to be worth as much as \$22 to 33 trillion. Since then the model indicates that they have slumped slightly to the \$21 trillion to \$32 trillion range, with a plausible midpoint of about \$26 trillion. But this still represents enough growth since 2004 to be consistent with the growth in global private banking AUMs noted above.⁵² Assuming a developing country wealth share of 25 to 30 percent, this range is also consistent with the results of our accumulated wealth model.

The Revised Global Distribution of Wealth

It may be helpful to place these estimates in the context of the overall distribution of global financial wealth. It turns out that this distribution is incredibly concentrated. By our estimates, at least a third of all private financial wealth, and nearly half of all offshore wealth, is now owned by world's richest 91,000 people – just 0.001% of the world's population. The next 51 percent of all wealth is owned by the next 8.4 million, another trivial 0.14% of the world's population.⁵³ As noted, a third of this has been accumulated from the 139 source countries in our focus sample. Almost all of it has managed to avoid all income and estate taxes, either by the countries where it has been invested and or where it comes from.

6. TRADE MISINVOICING -- AN IMPORTANT ASIDE

On the “uses” side, as noted, we have employed the World Bank's series for country current account deficits and changes in reserves. Some authors, like GFI, Epstein (2005), and Boyce and Ndikumana have also tried to adjust the observed current account deficit for alleged “trade misinvoicing” of foreign trade.

I have experimented extensively with such adjustments. I simply don't find the rough rules of thumb that are used to make these adjustments reliable.⁵⁴

⁵² These estimates for 2010 exclude other non-financial very important forms of offshore wealth like non-residential real estate, “alternative investments,” and collectibles. As noted, for 2004, TJN added another \$2 trillion to its \$9.5 trillion figure for financial assets to account for real estate, but nothing to allow for offshore alternative investments and collectibles. According to ML/CapGemini, non-residential real estate and alternative investments may add another 25% to 38% to HNWI's wealth portfolios, although the “offshore” portfolio shares are lower.

⁵³ See Appendix III, p102

⁵⁴ Epstein (2005) is heretofore the most comprehensive capital flight estimates to date, but his estimates are subject to many objections. First, Epstein (2005) omits key countries that are leading source of flight capital – notably, Russia, Mexico, Venezuela, and Argentina. Like GFI, he also employs the so-called “Boyce-Ndikumana adjustment” for “mis-invoicing,” which I find very problematic. For several countries,

If one is a great believer in the importance of aggregate – as opposed to case-specific – goods trade mispricing, leaving out this adjustment generally tends to make our unrecorded capital flow estimates even more conservative.

This is as good a point as any to make a more general point about the estimation of transfer mispricing, since it has recently received more attention than ever in the “offshore” debate.

In the course of preparing this paper and another presentation for TJN’s recent Helsinki transfer pricing conference,⁵⁵ I have closely examined several recent estimates of alleged transfer mispricing in goods -- by GFI in particular.

This analysis leads me to conclude that we *cannot* rely on the standard approaches to estimating transfer mispricing abuse in order to correct errors in the current account, much less in order to estimate **aggregate** flows of unrecorded capital flows due to transfer mispricing. There are simply too many problems with the data.

like China and Malaysia, this adjustment alone accounted for several hundred billion in additional imputed “flight.” The adjustment, which is based on the IMF’s Direction of Trade statistics, assumes a constant “normal” 10 percent cif/fob ratio for all developing country trade with the First World. It then takes all the First World exports to a specific developing country that are reported in the IMF’s Director of Trade Statistics, and scales them up by this ratio, compares the resulting “adjusted exports” figure with the reported First World imports by a specific country, and attributes any resulting gap to “import over-invoicing.” It then extrapolates from this First World-developing country gap to the country’s entire trade balance, on the assumption that First World trade data are accurate.

My inspection of the UN’s Commodity Trade Statistics data base (<http://unstats.un.org/unsd/comtrade>) which has detailed information on actual fob/cif ratios by country and commodity, reveals that the 1.1 ratio assumption is often wildly inaccurate, and that it fluctuates over time, even for a given commodity family. There may also be timing and quality differences that affect the data – for example, exports tend to be recorded earlier than imports, and with less accuracy, because of the incentives to collect import duties and enforce quotas. This biases our estimates of “import over-invoicing” upwards. In the case of China, as discussed in the text, there are also serious problems involved in separating out trade with Hong Kong, a key transshipment point. See also Frank R. Gunter (2003), “Capital Flight from China 1984-2001,” June 2003, Leigh University. Much more research at the individual country level and commodity level is needed to resolve this issue, so for the moment, we believe that the safer course is to omit the adjustment entirely.

Epstein (2005)’s estimates for China also appear to be vastly overstated, even without the mis-invoicing adjustment, because of the way Hong Kong is treated in China’s balance of payments statistics. Epstein (2005) also attempt to correct for the fact that some countries’ debts are partly denominated in non-dollar currencies.

Finally, for most countries, Epstein’s estimates start in 1980 and leave off in 2001, while ours extend from 1970 to 2010.

⁵⁵ TJN International Conference on Transfer Pricing, Helsinki, Finland, June 13-14, 2012.

In particular, we have GFI's well known claims that at least "\$1 trillion per year" is being lost *each year* by developing countries because of goods mispricing.

I find this sensational claim dubious at best. A close look at GFI's analysis of trade mispricing reveals that it is seriously flawed, for several reasons.⁵⁶

(1) GFI's analysis leaves out all country cases where their measures of trade mispricing are negative – despite the fact that such cases are quite common, especially in Africa, due to factors like unreported contraband and the parking of profits in offshore havens. This factor tends to inflate the aggregate estimates enormously.

(2) More than 70 percent of GFI's aggregate estimates for trade misinvoicing derive from just two countries – China and Mexico. Both of these gaps also largely pertain to these countries' trade with the US. What's going on here?

Recent work on these two sizable imbalances by professional trade experts suggests that they were largely due to bureaucratic factors like timing delays in trade reports, exchange rate variations, the handling of transshipments through Hong Kong, China's key "offshore" trade intermediary, and the fact that Mexico does not track or adjust its data for re-exports. Without a more careful look at specific bilateral trade relationships at the level of trading partners and industries, we should treat these estimates with great caution.⁵⁷

The Need for Case Studies. On the other hand, my recent work on goods misinvoicing shows that it can be a serious problem in specific industries like mining, forestry, tobacco, beer, and agribusiness, -- especially where it provides a conduit for capital outflows, parking profits in low-tax havens, and tax avoidance.

Using previously-unanalyzed trading partner data from the UN Comtrade data base, we have done country-by-country trade mispricing analyses for key "source countries," including China, Mexico, India, and Zambia, a tiny "rich poor" country in sub-Saharan Africa that heavily on copper exports.⁵⁸

We have also looked closely at transfer mispricing by Switzerland, a key "re-exporting haven" in the global trade system that has heretofore earned a nice living by parking profits havens. These careful case studies of particular bilateral trading relationships actually underscore the unsavory role that havens play in our global trading system.

Our analysis leads to several key conclusions:

⁵⁶ These factors pertaining to the GFI analysis of trade misinvoicing are summarized in Appendix III, especially p70

⁵⁷ See Appendix III, *supra*.

⁵⁸ See Appendix III, various charts

(1) We simply *cannot* rely on transfer mispricing comparisons to correct errors in the current account, for purposes of estimating **aggregate** unrecorded capital flows. The gargantuan estimates of trade mispricing that we often read about in the headlines should be taken with a salt thumb and a shot glass of tequila.

(2) Specific industry case studies are the way to go. Our detailed studies of mispricing with respect to Mexico, Zambia, India, and Switzerland show that analyzing bilateral trade closely underscores the unsavory role that havens play in our global trading system.

Given the serious data problems – for example, the absence of up-to-date published CIF-FOB ratios for specific trading partners and commodities -- there is no way right now to estimate how large it is on a global scale, without a great deal of further research.

Furthermore, the focus on goods transfer mispricing obscures the significant role played by corporate abuses of the haven system with respect to “intangibles” like brands, patents, and knowhow, mispricing of which has been growing dramatically. Finally, noisy estimates of aggregate corporate goods mispricing tend to distract attention not only from the kind of haven abuse of mis-invoicing just noted, but also from the serious abuses by the offshore investment and private banking industries that are the focus of this paper.

7. IMPLICATIONS

This report has many implications for public policy and research. This final section summarizes some of the most important ones.

I. Missing Wealth, Understated Inequality.

As noted earlier, this report focuses our attention on a huge “black hole” in the world economy that has never before been measured – private offshore wealth, and the vast amounts of untaxed income that it produces. Coming at a time when governments around the world are starved for resources, and we are more conscious than ever of the costs of inequality, it could not be more timely.

Using several independent estimation methods, and the most comprehensive data set ever assembled, we have been able to triangulate on the size and growth of this black hole. Even though we taken pains to err on the conservative side, one key implication is that this hidden offshore sector is large enough to make a significant difference to most of our conventional measures of inequality.

The report underscores the fact that all of our conventional measures of inequality sharply understate the levels of income and wealth inequality at both the country and global level. (The Tax Justice Network report *Inequality: You Don't Know the Half of It*, which accompanied the 2012 release of this one, explores the issue in more depth.) For most countries, the inequality of financial wealth within countries is not only much greater than we suspected at any one point in time, but it has been growing much faster.

Indeed, since the overwhelming share of unrecorded offshore private assets that we have identified belong to a tiny elite, the impact on inequality is astonishing. We have estimated, for example, that less than 100,000 people, .001% of the world's population, now control over 30 percent of the world's financial wealth.⁵⁹

Furthermore, since the offshore industry experienced a take-off in the late 1960s, and has been growing relative to the rest of the world economy through 2010, it appears that in-country wealth inequality may have increased rapidly during this period.

Of course "global inequality" is also the result of disparities among average levels of wealth among nations. The acceleration of national growth by leading developing countries like China, India, and Brazil since the late 1980s implies that the narrowing of average differentials in national income and wealth levels among countries may have offset these wider in-country inequalities to some extent.

On the other hand, the accelerated growth rates of "these fortunate few" developing countries has also widened the gap between them and many other developing countries.

Furthermore, "local," in-country inequality is arguably by far the most important type of inequality in terms of social, political, and economic impacts, as well as perceptions of relative well being, and that is the type that has increased at the hands of the global haven industry.

Finally, from the "pirate bankers' market" perspective, what is perhaps most interesting about the new landscape of global inequality that we have uncovered is the recent emergence of a true transnational private elite – a relatively tiny fraction of the world's population that shares surprisingly similar needs and interests from the standpoint of financial secrecy, banking services, taxes, and regulation.

Increasingly, indeed, the individual members of this private elite may be assuming many of the same attributes as multinational companies, even as MNCs have been becoming more like private individuals, so far as political rights are concerned. This means that super-rich individuals are increasingly acting as citizens of multiple jurisdictions at once,

⁵⁹ Appendix III, p102

even though they may be resident “nowhere” for tax purposes; that they are able to relocate quickly across borders; and that they are able to acquire “representation without taxation,” the ability to exert local political influence in multiple jurisdictions, independent of whatever taxes they pay in any particular jurisdiction.

It also means that as a group this transnational elite has, in principle, a strong vested interest in pushing for weaker income and wealth taxation weaker government regulation, more “open” markets, and weaker restrictions on political influence and campaign spending across borders – with a huge “transnational haven army” of pirate bankers, law firms, accounting firms, lobbyists, and PR firms ready to do their bidding.

Thus the *objective* increase in global wealth inequality at the individual level that we have begun to measure here sets the stage for asking a wide variety of questions about the resulting political and social impacts on the traditional nation-state.

II. Tax Base Erosion. Another key implication of this study is that the impact on lost tax revenue implied by our estimates may be huge -- large enough to make a significant difference to the finances of nations, especially to developing countries that are now struggling to replace lost aid dollars and pay for climate change.

Assuming, conservatively, that global offshore financial wealth of \$21 trillion earns a total return of just 3 percent a year, and would have faced an average marginal tax rate of 30 percent in the home country, this unrecorded wealth might have generated tax revenues of \$189 billion per year – more than twice the \$86 billion that OECD countries as a whole are now spending on all [overseas development assistance](#).

Of course calculations are subject to all kinds of caveats – the most important being that they imagine a world in which developing and developed countries alike are not only to locate this offshore wealth and tax it, but are also able to agree on reasonable rules for divvying up the proceeds. In practice, of course, many key “source” countries don’t even have domestic income tax regimes in place, let alone the power to enforce such taxes across borders.

But from this angle, this study actually contains some good news. First, in effect, we have actually just located a huge pile – at least \$21 trillion -- of untapped financial wealth that might now be called upon to contribute to the solution of our most pressing global problems.

Second, we also now know that a substantial fraction of this wealth is being managed by the top 50 players in the global private banking industry.

Together, these findings may provide an opportunity to think creatively about (1) how to prevent the abuses that have lead to off-the-books wealth accumulation in the future – for example, through automatic information exchange, country-by-country

reporting, and beneficial ownership registration; and (2) how best to make use of the huge stock of accumulated, untaxed wealth that is already there, as well as the steady stream of untaxed earnings that it generates – for example, by levying a modest OECD-wide withholding tax on “anonymous assets under management” in the top 50 banks, with the proceeds devoted to aid and climate change.

Again, such policy measures are especially important for the majority of developing countries that are not in a position to be able to tax income or wealth on their own. Indeed, once we take into account the growth of hidden offshore assets and the earnings they produce into account, many erstwhile “debtor countries” are in fact revealed to be net creditors of the wealthy OECD countries where much of this private financial wealth has been parked, off the books.

Indeed, as noted, this report has shown that developing world as a whole has been a significant CREDITOR of the developed world for more than a decade.

For developing countries, then, the true so-called “development finance” problem is precisely that all this unrecorded wealth is now offshore, in the hands of private bankers and their own rapacious elites. That means their “debt” problem has really become a **tax justice** problem – one that the developed countries have a responsibility as well as the capacity to help them solve.

III. Pirate Banking on the Rampage. As discussed above, it turns out that the secretive offshore sector – which essentially specializes in tax dodging and the laundering of proceeds from a myriad of other dubious activities – is not just an archipelago of exotic unrelated havens, but a very lucrative global industry – the “global pirate banking” industry. This industry has basically been designed and operated for decades, not by shady no-name banks located in island paradises, but by the *world’s largest private banks*, as well as leading law firms and accounting firms. All of these institutions are based, not in island paradises, but in major First World capitals like New York, London, Geneva, Frankfurt, and Singapore.

As we’ve seen, this report suggests that the world’s largest banks have, if anything, been expanding their haven-related “pirate banking” operations significantly. even while official institutions like the G20, the BIS, the IMF, and the World Bank have basically turned a blind eye to it.

Indeed, the report reminds us that that many of the very same banks that were most deeply involved in parking trillions offshore have recently received huge public bailouts.

Thus, of the top 10 players in global private banking- **all ten** received substantial injections of government loans and capital during the 2008-2012 period. In effect,

ordinary taxpayers have been subsidizing the world's largest banks to keep them afloat, even as they help their wealthiest clients slash taxes.

Many of these market leaders in global pirate banking – the practice of hiding and managing offshore assets for the world's elite – have also been identified lately as the market leaders in many other forms of dubious activity, from the irresponsible mortgage lending and high-risk securitization that produced the 2008 financial crisis, to the very latest outrageous scandals involving Libor rate rigging and money laundering for the Mexican cartel.

All this begs the question of why it is that financial regulators continue all this dubious activity to be perpetrated by this very same comparative handful of giant institutions – the living embodiment of corporate serial offenders, producing a seemingly endless stream of financial chicanery on a global scale, in country after country after country. Is there now such a thing as “Too Big To Be Honest?”

IV. Stemming the Tide. This leads naturally to the next implication -- nation-states need to work together to take steps now to control over all this out-of-control global “financial pollution.”

In a sense, this presents exactly the same political question as the “tax justice” and “global elite” problems that were noted earlier. But the resulting financial misbehavior is no longer just a tax justice issue – it is a fundamental problem of corporate malpractice that goes to the very heart of the global market economy, and the key players in the offshore industry are at the heart of it.

How should global bank regulators, as well as tax authorities, work together to clean up all this chicanery? The findings of this TJN report calls into question the claims made by G20 leaders way back in April 2009, in the immediate aftermath of the financial crisis, when they boldly declared that “the era of bank secrecy is over.”

This reports underscores the fact that the “era of bank secrecy” and the misbehavior it protects is far from over – that there is an urgent need for policy makers to take fundamental steps to stem the growth of the global haven industry.

As noted, among the key policy measures that TJN supports are automatic information exchange among tax authorities, county-by-country corporate reporting, and the deployment of public registries for beneficial ownership of companies, trusts, and foundations.

Given the lead role played by leading banks, law firms, and accounting firms in “enabling” all this dubious activity, global authorities must simply adopt much stiffer sanctions for the “repeat offenders” in this industry. Even large scale fines have not

been effective deterrents – we need to adopt much stronger sanctions for the institutions that engage in “pirate banking” misbehavior and the managers that run them.

Beyond that, this report also suggests that the line between “offshore” and “onshore” tax dodging has recently been blurred by the rise of First World secrecy jurisdictions like Delaware, Nevada, and Singapore, in addition to traditional “blacklist nominees” like Switzerland, Mauritius, Liechtenstein, and the Bahamas. In order to curtail the kind of “global bads” detailed in this report, it will be vital to curb this “onshoring” of offshore secrecy.

V. Multilateral Regulators – Missing Research, Data, and Will Power. As noted, despite this well-documented explosion in the size and growth of offshore private wealth, it is simply a scandal that official institutions like the Bank for International Settlements, the IMF, the World Bank, the OECD, and the G20, as well as leading central banks, have devoted so little research to this financial “black hole” in the global economy.

In principle, institutions like the World Bank, the IMF, the US Federal Reserve, the Bank of England, and the Bank for International Settlements not only have ample analytic resources, including scores of economists. They also have much of the data needed to estimate this sector more carefully.

For reasons of their own, however, they have tolerated the growth of the offshore sector far too long -- It has been left up to NGOS like TJN to support the kind of detailed, painstaking factual analysis that underlies this report

it is time for these institutions to live up to their promises, and work with organizations like TJN on a research and policy agenda that finally gives this offshore sector the attention it deserves.

Going forward, a key next step will be simply be to demand more transparency from global public institutions on this subject. They need to release more of the data they already have on its size and growth, and they need to devote more serious resources to its study.

VI. Summary. It is common for researchers to conclude each and other every study with a call for – more studies!

Indeed, we have done that here, partly just because we are excited about the progress reported here, and partly just because we have uncovered so many more interesting puzzles.

However, by calling for more careful analysis and study, we don't wish to distract attention from the many important findings that, we believe, are already secure enough to justify acting upon them.

For example, we already know that the "black hole" represented by offshore financial wealth is much larger than anyone has previously determined.

We already know that it has grown large enough to have a powerful impact on inequality, the distribution of the tax burden, public finances, and political influence across the globe.

We already know that this sector has been designed, operated, and politically defended by an influential, well-organized global "pirate banking" industry.

We already know that this industry now operates, for all intents and purposes, off the books, and beyond the effective reach of today's public regulators and tax authorities.

In short, this huge, secretive offshore industry has truly become the dark side of globalization.

We all share a collective responsibility now to redouble our efforts to get it under control.
