



Human Development  
Research Paper  
2011/09

**The Currency Transactions Tax:  
Feasibility, revenue estimates,  
and potential use of revenues**

Rodney Schmidt  
and Aniket Bhushan



United Nations Development Programme  
Human Development Reports  
Research Paper  
November 2011

Human Development  
Research Paper  
2011/09

**The Currency Transactions Tax:  
Feasibility, revenue estimates,  
and potential use of revenues**

Rodney Schmidt  
and Aniket Bhushan

United Nations Development Programme  
Human Development Reports  
Research Paper 2011/09  
November 2011



# **The Modern Currency Transactions Tax: Feasibility, revenues, and use of revenues**

*Rodney Schmidt*

*and Aniket Bhushan*

Rodney Schmidt is Director of Research at the North-South Institute, Ottawa, Canada. E-mail: [rschmidt@nsi-ins.ca](mailto:rschmidt@nsi-ins.ca).

Aniket Bhushan is Researcher at the North-South Institute, Ottawa, Canada. E-mail: [abhushan@nsi-ins.ca](mailto:abhushan@nsi-ins.ca).

Comments should be addressed by email to the author(s).

# Abstract

Re-visiting research begun a decade ago, we examine the design and implementation of a modern currency transaction tax, the original financial transaction or Tobin tax. We show how a feasible CTT can be collected, and we estimate CTT revenues and market impact based on alternative tax rates. We survey the potential uses for these new revenues, and propose allocation mechanisms. Finally, we estimate the new and additional resources that would likely become available for financing the provision of global public goods.

Keywords: Currency transactions tax, Financial transactions tax, Innovative finance for development, Financing global public goods, Settlement systems.

JEL classification: G2, H2, F3

The Human Development Research Paper (HDRP) Series is a medium for sharing recent research commissioned to inform the global Human Development Report, which is published annually, and further research in the field of human development. The HDRP Series is a quick-disseminating, informal publication whose titles could subsequently be revised for publication as articles in professional journals or chapters in books. The authors include leading academics and practitioners from around the world, as well as UNDP researchers. The findings, interpretations and conclusions are strictly those of the authors and do not necessarily represent the views of UNDP or United Nations Member States. Moreover, the data may not be consistent with that presented in Human Development Reports.

## **The Modern Currency Transactions Tax**

A decade ago we argued that, despite the enormous number of foreign exchange transactions occurring daily around the world, and the fragmented nature of the market, a Currency Transaction Tax (sometimes referred to as a Tobin Tax) would be feasible if it were collected from foreign exchange settlement systems (Schmidt, 2000 and 2001; see also Hillman, Kapoor, and Spratt, 2006; Spratt, 2006). Institutions for settling foreign exchange transactions, that is, for making the exchange of payments denominated in different currencies to complete a previously agreed deal, were increasingly globally centralized and organized. Then-recent improvements in technology, such as “Real-Time Gross Settlement”, and efforts to reduce so-called “settlement risk” enabled the settlement systems to capture each individual foreign exchange payment and match it back to the original trade deal. For the first time since Nobel laureate Professor James Tobin floated the idea in the early 1970s, his tax had become a practical policy option.

Today foreign exchange trading and settlement infrastructure has become even more organized, centralized, and standardized, making a currency transaction tax easier than ever to implement. A few large dealer banks facilitate, through automated electronic trading platforms, commonly known as electronic communications networks (ECNs), most global trading in foreign exchange. A single new institution, Continuous Linked Settlement (CLS) Bank, processes for post-trade settlement the majority of worldwide foreign exchange transactions. It is well on the way to becoming a global repository or archive for trade information on all individual foreign exchange transactions. A single institution, Society for Worldwide Interbank Financial Communication (SWIFT), provides the communications services linking most large-value or wholesale foreign

exchange traders to each other, usually on ECNs, and to the settlement institutions. SWIFT also clears payment obligations (matching and confirming payments associated with a trade deal) prior to settlement. Foreign exchange activity in the currencies of nearly every country depends on a few ECNs for trading and on CLS Bank and SWIFT for settlement. Now each of those countries can apply the CTT unilaterally to its own currency.

The CTT would have a global base. Estimated revenues are substantial, stable, and predictable. Due to ever increasing foreign exchange transaction volumes, estimates of CTT revenues have risen steadily, from US\$ 14 billion in 2001 to US\$ 40 billion today, even through the Great Recession of 2009-10. Mechanisms for pooling and allocating these new resources are available. We estimate that a CTT alone would substantially increase overall spending on some of the greatest challenges facing the world today.

## **CTT feasibility**

There are effectively three ways to settle wholesale market foreign exchange transactions. For the CTT to be feasible, it must be possible to obtain detailed trade information under each of these arrangements. Otherwise payments would shift to the systems that do not permit tax assessment. That would undermine the tax and slow or reverse the current evolution of trade and settlement arrangements to further centralization and integration, which are intended to promote efficiency and reduce risk.

The main way in which wholesale foreign exchange transactions are settled is through a globally integrated large-value payments institution, CLS Bank, founded in 1997. The other, traditional,

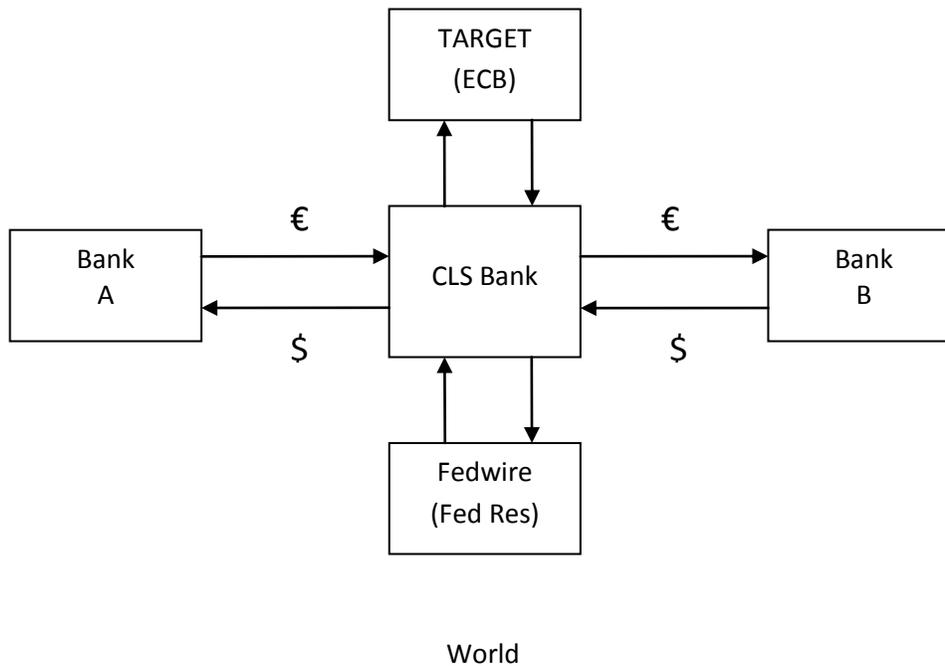
way is through correspondent banks operating in the countries of the two currencies in which the payments are denominated. Correspondent banks have payments accounts with their domestic large-value payments systems, and offer settlement services to foreign and domestic banks that do not have direct links to the domestic payments system.

Since the mid-2000s, most wholesale trading in foreign exchange occurs on ECNs, offered by a few large dealer banks. The volume of trading on each ECN is large, and is undertaken by many traders. These ECNs are not only trading platforms, but also integrated settlement systems, as the host dealer bank sets matched trades off against each other, in an internal netting process. While in 2007 less than a quarter of trades were internalized in this way, by 2010 eighty per cent or more of trades on ECNs were being settled through internal netting (King and Rime, 2010).

### **CLS Bank settlement**

Unlike most domestic large-value payments systems, CLS Bank is global, dedicated to foreign exchange transactions, and designed to eliminate settlement risk: that a foreign exchange payment would be made while the counter-payment would not be received. It achieves this by treating each foreign exchange transaction individually (“Real Time Gross Settlement”) and, operating 24 hours a day to overlap with all the time zones, making the two payments associated with each transaction simultaneously (“Payment Versus Payment”). CLS Bank also has payment accounts directly with all the central banks that issue the currencies it processes. Once payments are made into or out of these central bank accounts, they are legally binding and irrevocable, ensuring settlement finality (see Figure).

**Figure 1: FX settlement through CLS Bank**



CLS Bank settlement accounts for the majority of global foreign exchange settlements, and its share is increasing rapidly. At mid-2006 CLS Bank was settling 55 percent of global foreign exchange transactions. Here total global transactions include currencies and instruments that CLS Bank does not yet process. Settlement through correspondent banks accounted for 32 percent of all foreign exchange transactions, and bilateral netting settled a further 8 percent of transactions (CPSS, May 2008).

In October 2009 CLS Bank was settling 75 percent of foreign exchange transactions involving currencies and instruments that it processes (CLS Bank, 29 October, 2009). By April 2010 CLS Bank was settling US\$ 4,000 billion per day, reaching its level of activity before the financial and economic crisis (Financial Times, 12 April, 2010, p. 8). In comparison, in April, 2007, just before the crisis, daily global foreign exchange activity was estimated at US\$ 3,200 billion. Thus, foreign exchange activity appears to have risen in the last three years, through the crisis, and so too CLS Bank's settlement share of that activity. Indeed, in April 2009 daily turnover in the six largest currency markets was estimated to be US\$ 2,549 billion which, when extrapolated to the global marketplace, indicates that global turnover had increased over the previous two years (FXJSC, September, 2009, p.4). It is likely to have increased further as the world economy emerges from recession, and CLS Bank is settling a larger than ever share of those transactions.

CLS Bank is intended, by its own member banks and by its central bank regulators, to replace traditional means of settlement entirely in the near future. This is because CLS Bank settlement is the most efficient and safe means of processing foreign exchange transactions (see below). It is working actively to expand its coverage of the global foreign exchange market.

[CLS Bank] has been working with the New York banks FX Committee, hosted by the US Federal Reserve, and the Standing Committee for FX, the London-based equivalent hosted by the Bank of England, to identify the system's "missing" counterparties. 'We have worked to identify who are the participants transacting significant volumes, but who do not settle within CLS. There have been a variety of initiatives to approach them and the programme is making significant headway.' (Financial Times, 12 April 2010, p. 8)

CLS Bank currently processes foreign exchange trades executed in six instruments: spot; forwards; option exercises; swaps; non-deliverable forwards; and credit derivatives. It processes these instruments in 17 currencies: the Mexican peso, pound sterling, Israeli shekel, Japanese yen, Korean won, Danish krone, Norwegian krone, Swedish krona, the Euro, Canadian dollar, US dollar, Hong Kong dollar, Singapore dollar, Australian dollar, New Zealand dollar, South African rand, and Swiss franc. The major currencies (US dollar, Euro, yen, and pound sterling) are involved in 95 percent of CLS Bank settlement activity. CLS Bank is actively working to expand both the foreign exchange instruments and the number of currencies it processes ([www.cls-group.com](http://www.cls-group.com)).

Since CLS Bank processes individual foreign exchange payments in real time, matching the two payments associated with each foreign exchange transaction, it has an electronic record of the details of each of the US\$ 4,000 billion in global foreign exchange trades that passes through it every day.

The provision of trade data repositories that can ensure transparency of trading, achieve timely matching and confirmation, and provide full information on the size and structure of the market in one venue is attracting heightened regulatory interest...Following a decision at its October Board meeting, where Directors acknowledged CLS Bank's current trade information data repository, it endorsed CLS Bank's commitment to extending its coverage in providing a trade repository for the FX market...'CLS is already the effective repository for the vast majority of the industry's trade data.' -- Zar Amrolia, Global Head of Foreign Exchange, Deutsche Bank (CLS Bank, 29 October 2009).

The transaction-by-transaction foreign exchange records at CLS Bank are already copied, in whole or in part, to the central banks that issue the currencies in which the payments are

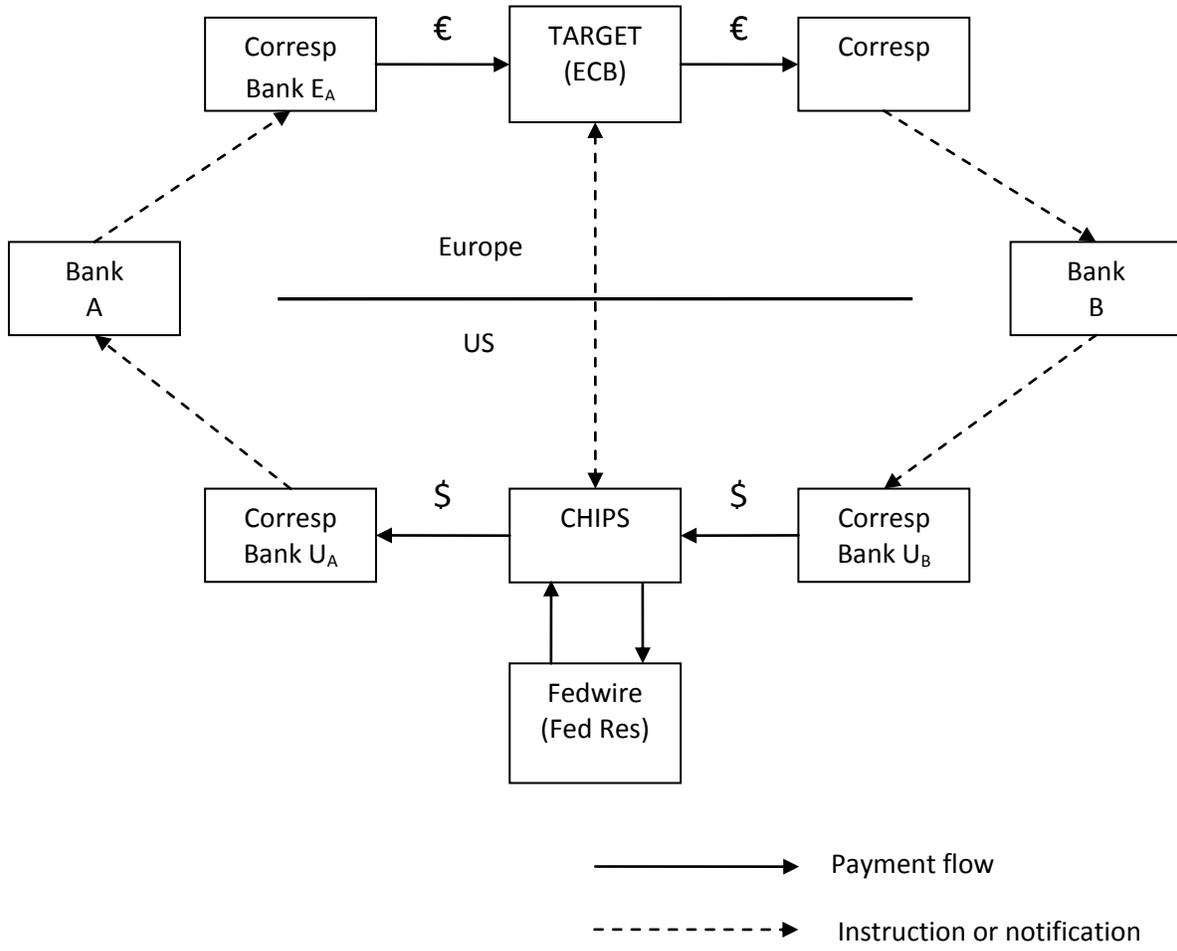
denominated, as the payments are made. These records could easily also be copied to the tax authority or its agent for collecting a CTT.

### **Correspondent bank settlement**

Settling foreign exchange transactions through correspondent banks entails splitting the two payments, each denominated in a different currency, associated with each transaction. The two payments are sent to different domestic large-value payments systems (see Figure). The two payments are not settled at the same time; indeed, they are often processed in different time zones. These foreign exchange transactions are exposed to settlement risk, and that is the chief reason central bank regulators want to replace correspondent bank settlement entirely with CLS Bank settlement.

For example, using correspondent bank settlement, the US dollar payment of a foreign exchange transaction would be sent to the Clearing House Interbank Payments System (CHIPS). CHIPS is a Real Time Gross Settlement payments system with links to Fedwire, which it uses for settlement finality on the books of the Federal Reserve. CHIPS specializes in cross-border US dollar large-value payments, including trade-related and foreign exchange payments. It settles 95 percent of such payments amounting to US\$ 1,500 billion per day.

**Figure 2: FX settlement through correspondent banks**



Since domestic large-value payments systems such as CHIPS process only one of the two payments arising from a foreign exchange transaction, they do not match the two associated payments, and do not necessarily have complete records of those foreign exchange transactions. They cannot, therefore, provide the information needed for assessing a CTT. There is, however,

another source for complete foreign exchange records on individual transactions settled through correspondent banks, including by bilateral netting. That is the industry's communications and clearing services provider.

## **SWIFT**

Before a pair of large banks or funds or corporations makes payments to settle a foreign exchange transaction undertaken between them, they 'clear' the transaction with each other. They do this by matching and confirming the terms and details of the trade 'in writing', in an electronic record. The transaction is agreed by traders in the two banks; it is then cleared by the 'back offices' of the two banks. The banks clear transactions beforehand whether they settle through CLS Bank or through domestic large-value settlement systems. The clearing record is the basis for the ensuing payment instructions sent to the settlement institutions.

Nowadays, foreign exchange traders' matching and confirmation services are nearly always outsourced to or integrated with a single third-party provider, namely SWIFT. This centralization facilitates the clearing of large volumes of transactions with many partners. SWIFT also provides the communications links and protocols, including electronic message formats, for the industry, tying together traders, correspondent banks, and settlement institutions, including CLS Bank and most of the large-value domestic payments systems (see Figure 3).

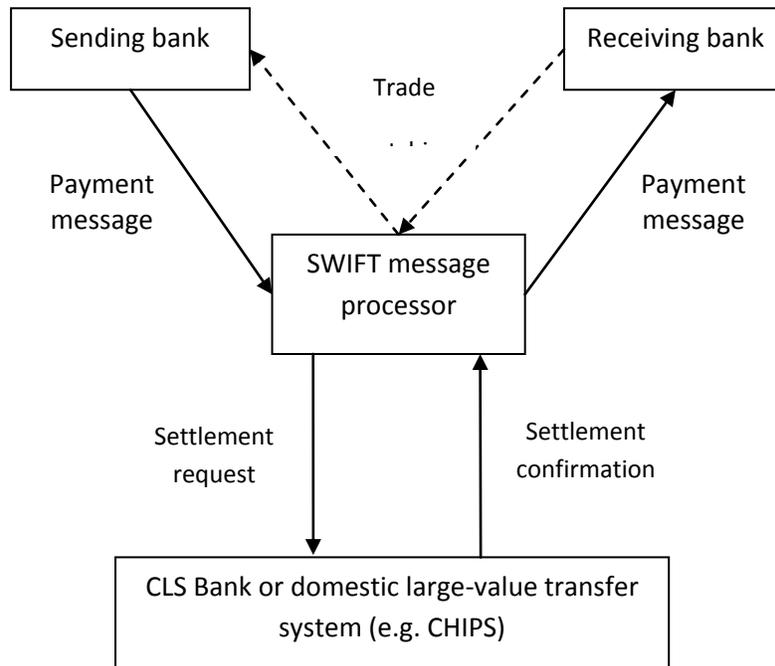
Trading banks typically establish direct SWIFT connectivity with their internal, intra-bank trade processing and payments system. A bank can use SWIFT clearing services even if its trading

counterparty does not subscribe, because the SWIFT platform is inter-operable with proprietary and other third-party providers. With this combination of standardized messaging and versatile connectivity, SWIFT is ubiquitous. It now provides communications links, message formats, clearing services, and correspondent bank and settlement payments instructions to more than 9,000 counterparties in more than 200 countries, and nearly 80 settlement systems in more than 85 countries ([www.swift.com](http://www.swift.com); CPSS, June 2008, p. 25).

Once a trade is cleared, the SWIFT network controls the trade record and subsequent payment orders, without the need for further intervention. Messages are processed and stored centrally, and copies sent to the sending and receiving banks and to the settlement institution.

Especially for market infrastructures, SWIFT has designed a Y-shaped message flow. In this case, the sending bank addresses a payment message directly to the receiving bank, for instance, by an MT103 message. SWIFT intercepts this message, copies the entire content (or a subset) of the message, and sends this copy to the settlement institution. Once the SWIFT network receives a respective approval and settlement message from the settlement institution, it forwards the original payment message to the receiving institution (CPSS, May 2005, p. 19).

**Figure 3: SWIFT message flow structure**

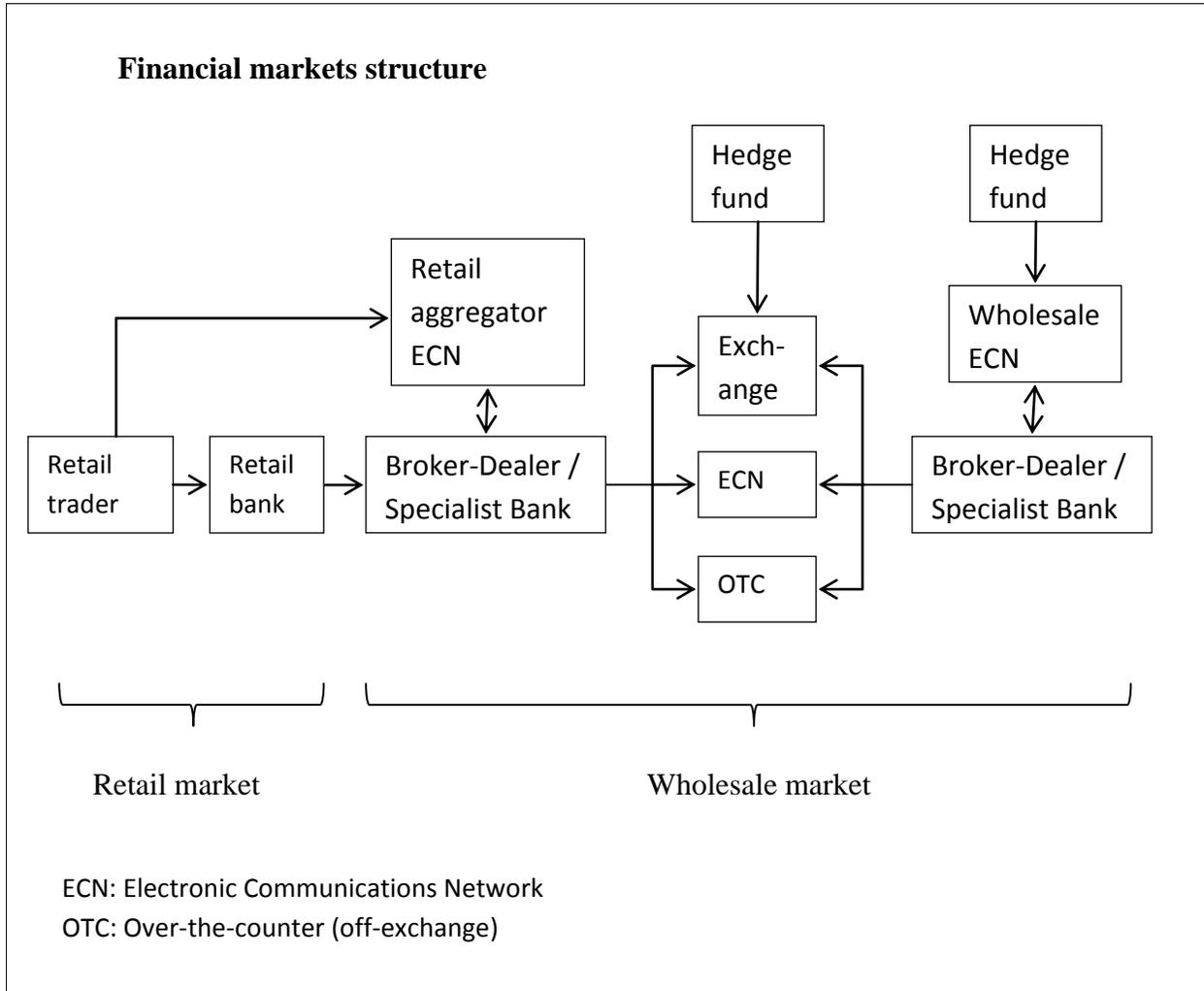


Adapted from CPSS, May 2005, p. 19.

## **Electronic communications networks**

Sometimes trading occurs on unofficial ‘exchanges’, electronic trading platforms or ECNs, provided by large dealer-broker banks (see Figure). These platforms also serve as unofficial settlement agencies, because the host dealer-broker banks net out the vast majority (up to 80 percent) of the trades against each other before sending the remaining payment obligations on to a settlement agency. In this case, the host dealer-broker bank would collect the CTT on trading

on the platform. Only a few banks are large enough to host such platforms, so it is feasible to enforce tax collection through verification of electronic records.



## Proposed CTT collection mechanism

We now have transaction-by-transaction records of the details and economic terms of global foreign exchange trading activity in the world’s frequently traded currencies. These records are

created by SWIFT in the process of trading on ECNs, or of clearing or settling foreign exchange transactions for large trading or correspondent banks and settlement institutions. These latter include CLS Bank and domestic large-value payments systems. CLS Bank archives records of transactions it settles, in its trade data repository. SWIFT stores records of transactions it clears.

Feasibility of the CTT depends on the availability of these records. The CTT is not, however, a tax on clearing or settlement services, as such. It need not and should not be collected by clearing or settlement providers. Those providers, and their central bank regulators, do not have a mandate to collect taxes. The CTT would also interfere with settlement processes, by increasing bank liquidity and, perhaps, collateral requirements, and otherwise affecting the ability of settlement systems to manage settlement risk. SWIFT, in particular, would not be able to collect a CTT, since it is only a message carrier and does not manage or hold funds.

It would be easy, however, for ECNs, CLS Bank, and SWIFT to copy transaction-by-transaction information needed for tax purposes, for each foreign exchange market participant, to the usual tax authority of the country that issues the currency, or to its national or international agent. They could either copy full transaction records to the tax agent or calculate and forward the tax amount due on each transaction. The tax authority would then periodically collect the CTT directly from the foreign exchange trading entities.

## **Compliance**

As long as the CTT can be collected equally on information from ECNs, CLS Bank, and from correspondent bank settlement, through SWIFT, there will be no incentive for trading banks to

divert payments from one settlement institution to the other. Specifically, the CTT will not obstruct the current trend, encouraged by central banks, for CLS Bank to take an ever larger share of foreign exchange payments for settlement. In the near future, CLS Bank will monopolize market foreign exchange settlements, thereby increasing efficiency and eliminating settlement risk for the industry altogether. In the meantime, since SWIFT provides clearing and communications services for the industry, including trading entities and CLS Bank and domestic large-value payments systems, it will be easy to coordinate CTT collection across the two settlement institutions, to ensure comprehensive coverage and avoid double-counting. It will also be necessary to coordinate collection with internal netting occurring on ECNs.

It is unlikely that trading banks would opt out of use of these fundamental institutions for trading and settling foreign exchange. The costs of doing so would exceed the cost of paying the tax.

Drivers to converge payments into a single platform can be strategic or regulatory requirements, business efficiency, risk management and cost reduction (SWIFT, February 2009, p. 55).

There is a significant degree of path-dependency, as switching from one network provider to another is usually costly and operationally complex...increased cross-border banking brought about by financial globalization and deepening linkages among market infrastructures has emphasized the importance of compatibility between alternative networks (CPSS, May 2005).

Further, the largest traders in the wholesale market for foreign exchange are few in number, so it would not be difficult to audit them for tax purposes. The top five trading institutions account for 34 percent of total payments by value; the top ten for 53 percent; and the top quartile for 84 percent (CPSS, May 2008, p. 20). The same is true of use of domestic large-value payments

systems. The top five banks account for over half, and often up to 70 or 80 percent, of the volume of settlement activity in CPSS countries (CPSS, June 2008, Table 4).

ECNs, CLS Bank, and SWIFT in conjunction with domestic large-value payments systems constitute the core infrastructure of the foreign exchange industry. They keep detailed records of nearly every foreign exchange transaction made around the world. Central banks and other government departments access those records for regulatory and other purposes. Tax authorities may also access them to collect a tax on worldwide foreign exchange transactions that involve the currency their government issues. There would be no intrusion on the privacy of individuals or citizens of foreign countries, because the currency tax would be assessed on large banks, investment funds, and corporations participating in the wholesale foreign exchange market.

Ten years ago debate over the CTT focused on two issues: viability and desirability. Today, following the financial and economic crisis of 2008-09, the same is true of the renewed interest from grassroots advocates to academic analysts to the political leadership of some of the largest financial centers. The discussion has progressed, however. That the CTT is feasible, and how to implement it, along the lines suggested here, is almost conventional wisdom. We know too, now, how the CTT would affect the foreign exchange market, how much revenue it would be likely to raise, and how to allocate these new revenues. The CTT has evolved from a great idea to a practical policy solution.

## **Tax rates and expected revenues**

We use the following formula to estimate CTT revenues for the four major currencies (dollar, euro, yen, and sterling), taxed individually (given unilateral feasibility of the CTT) and collectively:

$$R = 250tV\{1+e(2t/s)\}$$

where variables are defined as follows:

- t: tax rate, as a percent of the amount of each individual foreign exchange transaction;
- V: pre-tax transaction volume (turnover), in billions of US dollars, daily average;
- e: elasticity of the volume of transactions in response to an increase in transaction cost, defined as the percentage change in volume divided by the percentage change in cost;
- s: transaction cost, measured as the bid-ask spread in the inter-bank foreign exchange market, as a percentage of the amount of each individual foreign exchange transaction;
- and
- (2t/s): the tax-induced increase in transaction costs (the bid-ask spread) as a percentage of the pre-tax transaction cost.

This formula, used in Schmidt (2008), is derived directly from the definition of revenue as price times quantity, where quantity is obtained from the demand for trading in a currency.

To calculate revenues, volumes (V) are taken from the latest BIS survey of global foreign exchange market activity, and are the US dollar value of average daily transactions in the month

of April 2010 (BIS 2010, tables E.1 and E.2; to avoid double-counting when estimating revenues for the four major currencies together, we sum volumes for each currency against all other currencies, then subtract volumes in each of the included currency pair markets. This yields a volume figure for the four major currencies that is very close to the figure for all currencies). To estimate annual revenues, we multiply the daily average volume by the number of trading days in the year, 250. Transaction volumes cover all foreign exchange instruments.

Our figures for transaction costs (s) for all four currencies together are a volume-weighted average of transaction costs in each of the six included currency pair markets (dollar/euro; dollar/yen; dollar/sterling; euro/yen; euro/sterling; and yen/sterling). Transaction costs measured by the inter-bank spread may differ substantially by currency pair market, depending in part on the size of the market. Data for spreads are as of 2009-10 from the Leading Group report (2010, p. 19). The spread, as well as the tax rate, are sometimes expressed in terms of basis points, where a basis point is a hundredth of a percentage point. Thus, for example, a tax rate of half a basis point is equivalent to 0.005%.

<b>Currency</b>	<b>Volume</b> (US \$ billions, daily)	<b>Spread</b> (basis points)
Dollar	3 378	2.57
Euro	1 555	2.53
Yen	755	2.50
Sterling	513	3.26
<b>Major currencies</b>	3 952	2.62

Source: BIS 2010 for volumes; Leading Group 2010 for spreads.

We estimate revenues for alternative tax rates of 0.5 and 1.0 basis points. It turns out that these rates would increase the (weighted average) spread in the global foreign exchange market by 38 and 76 percent, respectively. These are significant impacts, though the former is close to the normal range of fluctuation of spreads over time, as shown in Schmidt (2008). The question is, by how much would transaction volumes fall in response to these increases in transaction costs? That is, what is the elasticity ( $\epsilon$ ) that we should use in our formula?

In Schmidt (2008) we estimated the elasticity in the dollar/yen market, using a simultaneous equations time series regression model, for the period 1986 to 2006, to arrive at an elasticity of -0.43. That is, a doubling of transaction costs would cause volumes to fall by 43 percent. A recent paper by Bismans and Damette (2008), cited in McCulloch Pacillo's (2010) comprehensive review of the Tobin Tax literature, also estimates foreign exchange elasticities, using various methods, arriving at figures ranging from -0.008 to -0.36 for individual currency pair markets and -0.30 to -0.79 when accounting for cross-market effects. However, these estimates appear to be obtained from a single day in November, in 2004. Elasticities are highly likely to change with market circumstances and structural features, making it a tenuous exercise to characterize these results as a robust feature of the markets.

Based on the Bismans and Damette (2008) results, McCulloch and Pacillo (2010) suggest an elasticity of -0.60. We have more confidence in our figure of -0.43 from Schmidt (2008). However, to err on the side of caution, in estimating revenues from a tax of half a basis point, here we use an elasticity of -0.50.

A tax rate of one basis point is a different matter. Elasticities estimated on daily market data measure the response of transaction volumes to ‘marginal’, or small, changes in transaction costs. As noted, a tax of a basis point increases transaction costs by 76 percent, hardly a small change.

To address this problem, we estimate the elasticity given a tax rate of one basis point in a way, though crude, that suits a discrete change in transaction costs. Currently, the weighted average spread in global foreign exchange inter-bank markets, is 2.62 basis points. A tax of one basis point would increase this to 4.61, which is approximately the level of the spread in the early 2000s. We can calculate the relevant elasticity, then, from global transaction volumes appearing in the triennial BIS survey of 1998 (when the average spread was somewhat greater than 4.61) or of 2001. The latter, a recession year, was unusual in that dollar foreign exchange transactions fell substantially from their levels in 1998. We opt, therefore, to compare volumes in the survey years of 2010 and 1998, using inter-temporally consistent data from BIS 2010 table B.1. Doing this, we arrive at an elasticity of -0.82.

In the following, then, we estimate revenues (rounded to the nearest billion) for two cases: a tax-elasticity pair of (0.5;-0.50); and a tax-elasticity pair of (1.0;-0.82). As in Schmidt (2008), given unilateral feasibility of the CTT, we provide estimates for a tax implemented for individual major currencies, as well as across the four major currencies.

Currency	t = 0.5 b.p.; e = -0.50		t = 1.0 b.p.; e = -0.82	
	Revenues (US \$ billions/year)	Market Impact (% change in volumes)	Revenues (US \$ billions/year)	Market Impact (% change in volumes)
Dollar	34	-20	32	-62
Euro	16	-20	14	-63
Yen	8	-20	7	-64
Sterling	5	-16	7	-49
<b>Major currencies</b>	40	-19	39	-61

These estimates are slightly higher than those in Schmidt (2008), despite a narrowing of spreads in foreign exchange markets since then. The two major reasons for the increased estimate values are that global foreign exchange transaction volumes grew substantially since the 2007 BIS survey, despite the intervening global Great Recession. Also, these estimates assume 250 trading days in the year, the norm in other studies, rather than the 240 days used in Schmidt (2008).

It is interesting that the two posited tax rates, with associated different volume elasticities, yield approximately the same revenue estimates. This illustrates the principle that at some point there are diminishing returns to the tax: higher rates are likely to see larger volume reductions, and may even change the structure of the foreign exchange market (though that is not likely for a tax rate of no more than one basis point).

While the two tax rates yield approximately the same revenues, they have much different effects on the size of the foreign exchange markets. A half basis point tax on the four major currencies would shrink transaction volumes in global foreign exchange markets by 19 percent. Applied to individual currencies, the half basis point tax would shrink the dollar, euro, and yen markets by 20 percent, and the sterling market by 16 percent. The latter is less affected because pre-tax transaction costs are significantly higher there than in the other currency markets, as noted above. A one basis point tax would shrink individual currency and the global foreign exchange markets by more than 60 percent (except for sterling, for which the market would fall in size by 49 percent).

In Schmidt (2008) we estimated that a half basis point tax would reduce global foreign exchange transaction volumes by 14 percent. The larger impacts of our current estimates are due to declines, in most markets, in pre-tax spreads since then.

In the following we estimate revenues for the tax-elasticity pair (0.5;-0.50) over time, with observations for each of the BIS survey dates. For this exercise, transaction volumes cover all currencies in the global foreign exchange market (BIS 2010 table B.1). Spreads are taken from the dollar/deutsche mark\_euro currency pair market as estimated in Schmidt (2008; pg. 9), except for the year 2010 which is, as above, from the Leading Group Report (2010, pg. 19).

<b>Year</b>	<b>Volume</b> (US\$ billions, daily)	<b>Spread</b> (basis points)	<b>Revenues</b> (US\$ billions, annual)
1998	1 527	4.10	17
2001	1 239	5.10	14
2004	1 934	3.05	20
2007	3 324	2.98	35
2010	3 981	2.42	40

## **Spending CTT revenues**

This section surveys existing proposals regarding what revenue raised from innovative financing instruments could be spent on and how. The emphasis in existing proposals is on making the case for the technical and political feasibility of a CTT (or broader FTT). The expenditure side – outlining the modalities and architecture of how resources would be allocated in a technically and politically feasible manner – has received relatively little attention.

We review the innovative financing and resource pooling mechanisms already in place to see what lessons can be drawn. We offer alternative scenarios for how CTT revenue could be (a) allocated via existing channels to fill known financing gaps or (b) combined and leveraged with other new revenue sources. Finally, we discuss allocation across competing priorities drawing on the experience of mechanisms already in place.

## **Proposed uses for CTT revenues**

Several high-profile and high priority areas for CTT expenditure are suggested in the growing literature. In outlining the proposals below we begin with the areas where there seems to be greatest consensus (i.e. those which show up in multiple proposals).

## **National priorities**

While there are no CTTs in place anywhere in the world<sup>1</sup> at least 40 countries have experimented with FTTs of one sort or the other over the years (Beitler, 2010). The majority of such taxes (e.g. securities transaction taxes and stamp duties on stocks, bonds, futures and options) are used to cover the cost of the market regulator (as in the case of the SEC in the US) or flow through into general budget coffers (as in the case of the UK stamp duty). However some countries have experimented with earmarking revenues for domestic priorities ranging from local government funding for healthcare (Brazil) to countercyclical stabilizers (Chile) to finance bailout of financial institutions (Columbia) and as emergency measures during hyperinflation (Peru).<sup>2</sup> In most cases domestic FTTs have raised significant amounts of revenue.<sup>3</sup> Thus there is high probability that any new revenue raised from a CTT would be used in part to fund domestic priorities. Even the most ambitious proposals and campaigns, such as Robin Hood Tax, first and foremost see the tax funding national healthcare, education and domestic poverty, and only a percentage going towards international development or global public goods.<sup>4</sup>

---

<sup>1</sup> Brazil's imposto sobre oeracoes de credito, cambio e seguro (IOF) imposed when foreign currency is converted into Reals and Chile's experiment with the unremunerated reserve requirement probably come closest to CTT.

<sup>2</sup> We should add that earmarking FTT revenue for use in sectors other than the one taxed has run into constitutional challenges, such as in Brazil. See Beitler (2010) for more. For a critique of earmarked taxes see also Birdsall and Leo (2011).

<sup>3</sup> Sweden's experience stands out as an exception.

<sup>4</sup> See: <http://robinhoodtax.org/>

In the aftermath of the financial crisis which cost taxpayers trillions in bailouts, a CTT, or more broadly FTTs have also been suggested as mechanisms to fund financial sector safety nets at the national level (IMF, 2010).<sup>5</sup>

## **Climate change**

Given commitments made at the Cancun climate summit (2010) and Copenhagen Accord (2009) – wherein developed countries committed to collectively mobilize \$30bn in new and additional resources from 2010-2012 increasing to \$100bn per year by 2020 – financing for climate change adaptation and mitigation is a major candidate for CTT expenditure. A CTT would be an attractive means to meet this commitment as there aren't many options at the required scale that would satisfy the 'new and additional' criteria. Moreover to date donor governments have financed climate change at far lower levels than traditional development assistance programs (Birdsall and Leo, 2011). There is also a large gap between funds committed to climate change (\$30.8bn in 2010) and amounts deposited in climate funds (\$10.7bn). Most proposals call for the majority of non-domestic CTT (and FTT expenditure) to go towards climate change. The UN High-Level Advisory Group on Climate Change Financing (UNAGF, 2010) in reviewing several options proposes that 25-50% of the proceeds from an FTT (or in our case the narrower CTT) should be directed to climate change adaptation and mitigation in developing countries.<sup>6</sup>

The added advantage with CTT proceeds going towards climate change is that there is already a fast evolving (though complex) global climate finance architecture encompassing large bilateral efforts like Japan's Hatoyama Initiative as well as multilateral tracts like the World Bank's Climate Investment Funds and Global Environment Facility (GEF) (Caravani and Bird, 2010).

---

<sup>5</sup> The IMF proposal supports a Financial Activities Tax (FAT) which would be a sector focused value-added tax.

<sup>6</sup> This is in line with the Robin Hood Tax (2010) proposal.

Multi-donor Trust Funds (MDTFs) and regional development banks are important nodes in the evolving climate finance architecture. This evolving architecture is expected to consolidate in the Green Climate Fund proposed during the Cancun Summit.<sup>7</sup> In the area of climate change where an evolving financial architecture does exist CTT revenue in the first instance could easily be used to finance known climate funding gaps. Resources could also be directed to financing long-term investment in climate-related research and development, including adaptation and transfer of appropriate clean energy technology to poor countries.

## **Global health**

The global health finance architecture is more developed than the emerging climate finance architecture. Existing vertical funds as well as systemic interventions (via the WHO) can easily be tapped to channel new CTT financing to improve access to basic health care in the poorest regions. The health finance architecture is also the site of interesting innovations in resource mobilization. Innovative examples include the International Financing Facility for Immunization (IFFIm) established in 2006 and the public-private Advanced Market Commitments (AMC) to accelerate commercial availability of a new pneumococcal vaccine, as well as UNITAID which is financed by a small airline levy and proceeds are used to scale up access to treatment for HIV/AIDS, malaria and tuberculosis.

CTT revenues could be directed, via vertical funds as well as the WHO towards meeting health finance gaps and addressing health emergencies. Several observers argue that a more systemic approach to health systems upgrading is needed in developing countries. Longer-term investment in health infrastructure, including training and repatriation of health workers, is necessary to

---

<sup>7</sup> The governance structure of the fund is under discussion.

sustain recent progress achieved as a result of recent vertical funds and other innovative interventions. CTT revenues could be well suited to such efforts and could bolster financing for health systems in the poorest countries.

### **Global financial safety net and insurance**

The recent financial crisis clearly demonstrated the depth of global financial interconnectedness. A number of countries with relatively strong fundamentals and little or no direct exposure to the epicenter of the crisis were none the less caught up in the liquidity crunch. In response to this the Korean presidency of the G20 in November 2010 floated the idea of a global financial safety net (G20 Seoul Summit Communiqué). The Korean proposal recognizes the need to address precautionary accumulation of large foreign reserves (an expensive form of self-insurance) by key emerging economies which in turn contributes to global imbalances. A global safety net could build on the new IMF credit lines extended to qualifying countries during the crisis, as well as bilateral swap arrangements, both of which helped mitigate the transmission of the crisis. The proposal is similar to the idea of creating an insurance pool for systemically important economies (Prasad, 2009). CTT revenues could go towards initial capitalization of a global financial safety net or insurance pool.

### **Social protection floor**

Social protection is rapidly emerging as the next big idea to combat poverty. The UN in partnership with the WHO and ILO recently launched its Social Protection Floor Initiative. Presently 80% of the global population do not enjoy a set of social guarantees that allow them to deal with life's risks. Ensuring basic social protection for these people, many of whom are

struggling just to survive, is a necessity (UN, WHO, ILO, 2011). In times of crisis a social protection floor acts as an automatic stabilizer by alleviating the drop in aggregate demand (avoiding for instance the contraction that plunged most of the world into recession recently). The UN estimates that a basic floor of social transfers is affordable at any given stage of development. By working on both demand and supply side measure the social protection floor takes a holistic approach including ensuring access to essential services (water, sanitation, food and nutrition, health, education, housing and others). Transfers ensure livelihood security for the poor and vulnerable populations, and ensure continuity during times of crises. The initiative is owned by national stakeholders including social partners, NGOs and relevant ministries with support from the UN agencies. The ILO and WHO are lead agencies at the global level and work is underway to integrate the initiative into existing national development plans, decent work country programs, PRSPs and growth strategies.

Social protection is receiving increasing attention because of the demonstrated successes of direct cash transfer programs such as Mexico's *Oportunidades*, Brazil's *Bolsa Familia* and India's national rural employment guarantee (NREGA) to name three. A number of other pilot programs are under way including in post-conflict situations, such as South Sudan's *Peace Children* policy (Bunting, 2011). As Barrientos et al (2011) show just giving money to the poor directly works for poverty reduction. The powerful incentive effects have been demonstrated time and again through randomized controlled trials (such as for malaria bed nets). CTT revenues could be used to finance the UN social protection floor initiative and scale up successful pilot projects.

## Spending mechanisms

A number of innovative financing and pooling mechanisms are already in place from which we can draw best practices towards the development of a CCT-based architecture. In particular these include the IFFIm, UNTAID, Millennium Challenge Corporation, the Multi-Donor Trust Fund model and Climate Investment Funds. There are weaknesses and strengths associated with each and we highlight these.

In line with proposals such as the Global Solidarity Fund (Leading Group, 2010) we posit that new and additional CTT revenue will require a new CTT-focused trust fund with its own governing body and independent evaluation office. We conceive the fund as primarily a financial instrument (as opposed to implementing agency). However, given the range of priorities that new and additional CTT revenues could be directed towards, we suggest that the trust fund comprise three financing windows (reflecting the varying degrees of development of the governance, implementation and financing architecture associated with the areas described above). These include a long-term (venture) investment window: that would invest in (or subsidize) areas that require longer gestation periods and for which financing channels are not already well developed. A gap financing window: which could mobilize resources to cover known financing gaps in areas where otherwise channels already exist. And a reactive emergency response window: that would fast-track approvals to meet pressing time sensitive needs.

Establishing a new CTT-focused trust fund need not require reinventing the wheel. In our view such an effort should keep in mind three important principles: flexibility, leverage and tapping existing channels as far as possible.

## **Flexibility, Leverage and Tapping Existing Channels**

Much like the IFFIm which has since 2006 managed to front-load and leverage \$2.6bn in donor commitments by issuing aid-backed bonds in international capital markets, we conceive the CTT trust fund as a primarily financial entity. Unlike the IFFIm however the CTT fund would raise new financing and would not be linked to any one sector or modality. The fund would be organized to manage a portfolio of long, medium and very short-term financing requirements.

The Multi-Donor Trust Fund (MDTF) experience could serve as a model for how the emergency response and gap-financing windows may be organized. MDTFs emerged in response to calls for better delivery of development assistance. MDTFs pool resources from various donors with disbursements managed by an administrative agent under tailor-made rules (Balmes, 2011). The mechanism focuses on specific needs and is aimed at improving coordination, flexibility as well as effectiveness. To date over \$5bn has been committed to various MDTFs ranging from Afghanistan reconstruction to MDG financing, climate change and peace-building. The best known MDTFs are set up to respond to natural disasters and humanitarian crises, including reconstruction efforts. In our case, an agreed percentage of the total CTT trust fund would be pooled and allocated in a way that is modeled on the MDTF experience which has proved effective in responding to emergencies. This allocation may not adhere to the ‘new and additional’ requirement but could still play a vital role in enhancing capacity to respond to emergencies. Where existing MDTFs are in place these channels could be directly tapped by the CTT fund.

Similarly an agreed percentage of the total trust fund could be dedicated to a gap-financing window. Here the experience of the Millennium Challenge Corporation (US) could serve as a

model. The MCC is an innovative and independent US aid agency set up by Congress in 2004. To date the MCC has disbursed over \$7bn in funding. The MCC works on three important principles that could be adapted for our gap-financing window: competitive selection, country-led planning and country-led implementation. It is based on competitive selection where eligibility is assessed across a range of indicators; it is country led, in that eligible countries are required to identify their own priorities in broad consultation within their society, and implementation is led by the country. In our case the recipient would not be a country but sector or specific initiative. The administrative or implementing agent (for instance the WHO and ILO in the case of the UN Social Protection Floor) would make the case to the CTT trust fund's gap-financing window. The agent making the case for gap-financing would also be the implementing agent thus minimizing the monitoring and evaluation distance, as well as ensuring an existing channel is utilized where possible.

Finally we envision the majority of the CTT trust fund allocation going to the long-term (venture) financing window. The CTT is an appropriate mechanism to raise financing for long term purposes such as investment in clean energy innovation and especially adaptation of clean energy technologies for use in poor countries. The CTT could help finance low-carbon growth strategies in low income regions and facilitate sharing of best practices in mitigation and adaptation.

However investment requirements in these areas are substantial.<sup>8</sup> A CTT trust fund at best could be one mechanism to initiate such large and long-term outlays. Therefore leveraging the fund and combining it with other innovative financing instruments could dramatically scale up the CTTs potential.

As mentioned, the IFFIm has already set a precedent with several successful bond issuances in international capital markets (raising about \$3bn), including in emerging market currencies such as the Brazilian Real and South African Rand in addition to the Australian and US dollar, Japanese Yen and British Pound Sterling.<sup>9</sup> The IFFIm experience demonstrates that there is appetite for such innovative instruments in international capital markets.<sup>10</sup>

Moreover established agencies, such as the Global Environment Facility (GEF) have successfully leveraged public funding by a factor of 7:1 by tapping private sector financing in support of climate change efforts. Multilateral development banks are another good example.

The UNAGF (2010) report on climate finance calculates the MDBs can play a significant multiplier role. For every \$10bn the MDBs can deliver \$30-\$40bn or more in gross capital flows for green initiatives by fostering private capital. Therefore there is significant potential to leverage up CTT funded resources devoted to the long-term window by using the base amount to

---

<sup>8</sup> See chapter 4 (previous) for estimates. To achieve universal access to modern energy services by 2030 the IEA estimates annual costs of \$36bn. A more ambitious scenario based on the Copenhagen goal is estimated at \$768bn annually.

<sup>9</sup> [http://www.iff-immunisation.org/bond\\_issuances.html](http://www.iff-immunisation.org/bond_issuances.html)

<sup>10</sup> However the bonds do not raise *new* money, but simply front-load future aid commitments. In this way they do however increase the predictability of flows.

further tap private finance. The added benefit would be that this could dampen the inherent volatility and pro-cyclicality associated with the CTT as a revenue source.

A more ambitious approach would be to securitize and collateralize CTT revenue (and potentially other innovative sources). For instance a related promising idea is the monetization of part of the IMF's surplus Special Drawing Rights (SDRs).<sup>11</sup> Birdsall and Leo (2011) estimate this could raise up to \$75bn at little or no budgetary cost for contributing governments.<sup>12</sup> A percentage of CTT trust fund proceeds could be combined for instance with an SDR backed instrument as well as other potential sources (such as IMF gold sales, carbon finance and others). The SDRs have the added appeal of acting as a monetary rebalancing instrument – demand is expected to come from emerging economies looking to diversify their reserve holdings. Given the SDR is not a sovereign currency it would not carry the CTT and thus avoid double-taxation.

Building on the nearly four decades of experience with various forms of future-flow securitization (both sovereign and private receivables) the combined CTT, SDR and other proceeds could be further leveraged by issuing structured derivatives. A typical future flow structure involves an originator (borrowing entity – i.e. the CTT trust fund's long-term window) selling its receivable (CTT, SDR and other proceeds) directly or indirectly to a special purpose vehicle (SPV). The SPV issues debt instruments to designated international creditors.<sup>13</sup> A collection agent allocates receivables to the SPV, which makes principal and interest payments to

---

<sup>11</sup> SDR surpluses occur when a country's holdings exceed allocations. Largest SDR surplus countries include the US, China, Japan, Libya, Saudi Arabia, Kuwait, Botswana and others.

<sup>12</sup> Willing governments would utilize a small portion of their existing SDR allocation to capitalize a third-party financing entity which would offer bonds on international capital markets backed by SDR reserves. While the source of the capitalization maybe different the third-party financing entity model is similar to our own proposal.

<sup>13</sup> For e.g.: pension funds or other large institutional investors, both public and private.

the investors. Excess collections go back to the originator. This structure mitigates currency, credit and other risks. It has been used to substantially leverage all sorts of receivables from heavy oil proceeds in Mexico to telecommunications receipts of a public sector operator in Pakistan to Brazilian and El Salvadorian foreign worker's remittances (Ketkar and Ratha, 2009). Issuing derivatives backed by innovative financing instruments like the CTT or SDR-bonds (or both combined) would be an experiment in utilizing financial innovation in service of global public goods.<sup>14</sup>

There are strengths and weaknesses associated with each of the steps described above. We conceive the CTT trust fund as a primarily financing entity. This entails greater transparency, accountability as well as monitoring and evaluation burden. It also shifts substantial burden on to the recipient administrative or implementing agency. Organizing the fund as an implementing agency or coupled with an implementing agency (such as GAVI-IFFIm or the Global Fund model) could increase transactional costs substantially (it would also presuppose much greater in-house expertise). The flexible three window model we suggest is also aimed at striking a balance between vertical and horizontal (or systemic) approaches. Vertical approaches, such as targeting HIV/AIDS or other diseases, have been criticized lately for detracting attention away from more systemic needs (such as the wider health system infrastructure). Their competitive nature also increase recipient burden substantially. However in our opinion this would be a necessary trade-off for a CTT trust fund. As mentioned we see the fund's primary day to day operations comprising management of a diverse portfolio of long, medium and very short term financing, the bulk of them executed via the existing multilateral architecture. In this way

---

<sup>14</sup> Of course the greater the leverage the greater the return on equity/asset investors may demand. This is why we suggest this approach for only a portion of CTT trust fund resources within the long-term window, which would be aimed at financing innovation that could have substantial returns.

resources could be allocated to multiple sectors (climate, health, social protection) through a range of modalities.

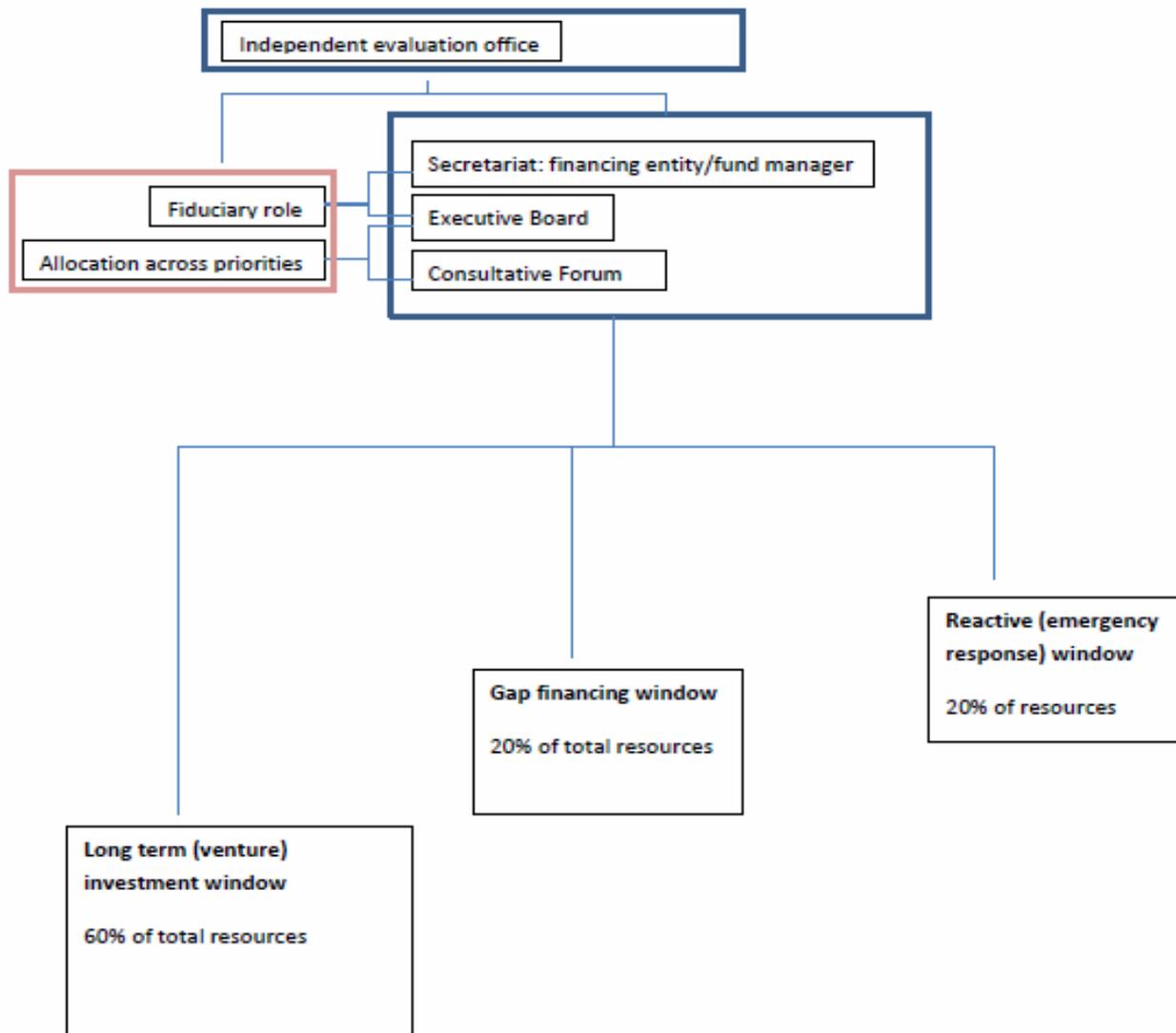
## **Governing structure and allocation mechanism**

The figure below visualizes the governance and functional model. The governance model we propose draws on innovative recent approaches, in particular UNITAID and World Bank climate funds. We envision the main governing body comprising a secretariat, an executive board and a consultative group. These would be supported by an independent evaluation office (as in the case of the IMF).

The Executive Board is the decision making body responsible for setting objectives, action plans and partnerships. The Board comprises contributing member countries, recipient representation, CSO and private sector representatives, and two sector specific representatives from implementing agencies or international organizations. The Consultative Forum, as in UNITAID, would be larger and allow for broader representation from key stakeholders – CSOs, private sector and other stakeholders. It would play an advisory role in fund allocations. The Secretariat in our model would be primarily comprised of the fund management or financing entity responsible for day-to-day functioning of the fund. The Secretariat and Executive Board would be responsible for the main fiduciary responsibilities while the Executive Board and Consultative forum would be responsible for allocation across the three financing windows. This approach builds on the governance structure of UNITAID which has been praised by various observers (Leading Group, 2010). In our model the independent evaluation office would provide additional oversight covering both fiduciary as well as allocation aspects.

In addition, drawing on best practices noted in discussion of Climate Investment Funds and the Kyoto Protocol Adaptation Fund, we further propose the fund's Executive Board be comprised of equal representation from developed and developing countries. To allow for adequate balance the board could adopt a rotational approach ensuring fair representation of especially vulnerable groups such as small island states and least developed countries (Carvani and Bird, 2010).

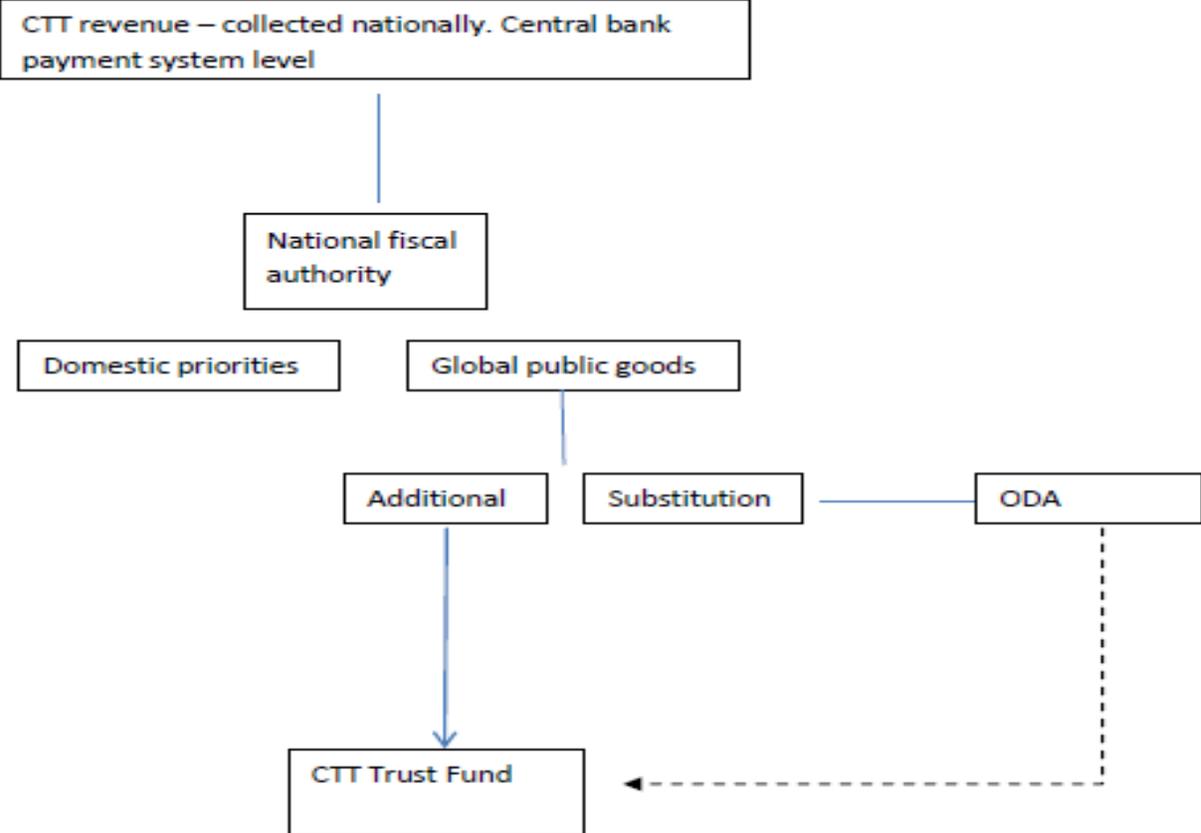
While all of the above can be considered supply-side structures, there are also interesting innovations on the demand-side. For instance national trust funds (NTF) serve as a potential model to help ensure transparency and accountability at the recipient end, as well as country ownership and greater coherence with other strategies. The NTF can serve as an important platform for monitoring results and outcomes independent of donor intervention, as is the case in Brazil's Amazon Fund, which is entirely owned by Brazilian bodies. The Guidance Committee of the fund includes equal representation of both public authorities and civil society and each group has equal decision making power (Carvani and Bird, 2010). In our approach corresponding trust funds would be set up at the recipient entity or implementing agency's end to provide demand side governance.



The following figure describes the CTT resource flow. In our opinion the most viable option is for collection to take place at the payment system level.<sup>15</sup> Revenues would then be channeled through national fiscal authorities who would make the initial determination of the balance between domestic and global priorities. We take as a given not all international or global public

<sup>15</sup> This contrasts Birdsall and Leo (2011) as well as Leading Group (2010).

good expenditures will necessarily be ‘new and additional’. In times when donor aid budgets are squeezed if some CTT revenue goes towards bolstering ODA we do not see this as problematic. This is more so the case as poor countries are already squeezed on both sides, with dwindling ‘ODA grants’ to support needed investment and limits on access to non-concessional market-based finance under IMF-World Bank debt sustainability framework. Therefore if some proportion of CTT revenues are ODA substitutes, but are nevertheless used to finance grant expenditure in poor countries this would still be welcome. However the majority of CTT revenues dedicated to GPGs would be additional and would directly flow through to the proposed CTT trust fund.



## Resource allocation scenarios

Based on the above architecture and revenue estimates update we outline alternative scenarios. In the first set of scenarios (A) we consider a CTT on major currencies (dollar, euro, yen and sterling); while in the second (B) scenario we look at a unilateral CTT on the Euro (the second largest traded currency by some distance, after the US dollar). For both we use the half basis point (0.005%) rate, and -0.50 as the elasticity.

Total revenue for **scenario A** – where CTT is on all major four major currencies – has been estimated at US\$40bn annually.

For A1 if we take as a given only half CTT proceeds go to non-domestic efforts or GPGs and 10% of that substitutes existing grant ODA the division across our three proposed windows would be as follows:

Emergency response:	\$3.6bn
Gap financing:	\$3.6bn
Long-term:	\$16.2bn <sup>16</sup>
Total GPG:	\$23.4bn
<hr/>	
Total (GPG + domestic):	\$43.4bn

<sup>16</sup> Assuming a quarter of funds devoted to the long-term window leveraged 3:1 (a fairly conservative multiple).

For A2 if we take as a given only 25% CTT proceeds actually flow through to non-domestic or GPGs and allow for a higher ODA grant substitution (at 20%), the division across our three windows would be as follows:

Emergency response:	\$1.6bn
Gap financing:	\$1.6bn
Long-term:	\$4.8bn <sup>17</sup>
Total GPG:	\$10.4bn
<hr/>	
Total (GPG + domestic):	\$40.4bn

For **scenario B**, where there is only a unilateral CTT on the Euro (with all the other assumptions same) the total estimated revenue is US\$16bn annually.

For B1 if we take as a given only half CTT proceeds go to non-domestic efforts or GPGs and 10% of that substitutes existing grant ODA the division across our three proposed windows would be as follows:

Emergency response:	\$1.4bn
Gap financing:	\$1.4bn
Long-term:	\$6.47bn <sup>18</sup>
Total GPG:	\$9.27bn
<hr/>	
Total (GPG + domestic):	\$17.27bn

<sup>17</sup> Assuming a quarter of funds devoted to the long-term window leveraged 3:1 (a fairly conservative multiple).

<sup>18</sup> Assuming a quarter of funds devoted to the long-term window leveraged 3:1 (a fairly conservative multiple).

For B2 if we take as a given only 25% CTT proceeds actually flow through to non-domestic or GPGs and allow for a higher ODA grant substitution (at 20%), the division across our three windows would be as follows:

Emergency response:	\$0.64bn
Gap financing:	\$0.64bn
Long-term:	\$2.88bn <sup>19</sup>
Total GPG:	\$4.16bn
<hr/>	
Total (GPG + domestic):	\$16.16bn

A CTT on all major currencies as described in this paper could mobilize between \$1.6 and \$3.6bn in financing for emergency responses to global crises, between \$1.6 and \$3.6bn for a dedicated gap-financing window and between \$4.8bn and \$16.2bn in long-term financing per year.

A unilateral CTT on only the Euro could mobilize the equivalent of between \$640mn and \$1.4bn in new financing for emergency responses to global crises and the same amount for a dedicated gap financing window. In addition it could finance long-term investment between \$2.8bn and \$6.4bn per year.

---

<sup>19</sup> Assuming a quarter of funds devoted to the long-term window leveraged 3:1 (a fairly conservative multiple).

## Comparison to current global public good expenditure estimates

While ultimately priorities and allocation across a portfolio of priorities would be determined by the governance structure we have proposed it is useful to compare the scale of the above with current spending on GPGs. Birdsall and Leo (2011) estimate total current donor spending on GPGs at \$11.6bn (approx.) in 2009. However the bulk of this comprises expenditure on UN peacekeeping. Removing peacekeeping GPG leaves expenditure in 2009 at only about \$2.7bn.<sup>20</sup>

In comparison, our lowest case scenario estimates that a unilateral CTT (only on the Euro) could mobilize between \$4.16bn and \$9.27bn in new and additional financing, whereas a CTT on the four major currencies could mobilize between \$10.4bn and \$23.4bn in new and additional financing annually. Clearly, even by our own highly conservative projections, CTTs can dramatically scale up current GPG expenditure.

---

<sup>20</sup> Other areas included are: extractive industries transparency initiative, consultative group on agriculture, 3ie evaluation initiative, global environment fund replenishment, UN adaptation fund, advanced market commitments, Montreal protocol, IFFIm, climate investment funds and IMF surveillance.

## References

- Balmes C., 2011. The World's Largest Multi-donor Trust Funds: A Primer. *DevEx*. Online at: <http://www.devex.com/en/articles/the-world-s-largest-multidonor-trust-funds-a-primer>
- Barrientos A, Hanlon J, Hulme D. 2011. *Just Give Money to the Poor: The Development Revolution from the Global South*, Kumarian/Stylus Publishing.
- Basel Committee on Banking Supervision, June 2006, Annex 3.
- Beitler D. 2010. Raising Revenue: A review of financial transaction taxes throughout the world. Health Poverty Action, Stamp out Poverty and Just Economics.
- Birdsall N., and Leo B. 2011. Find me the Money: Financing Climate and Other Global Public Goods. *Center for Global Development Working paper 248*.
- Bunting M. 2011. Is Social Protection the next big idea to combat poverty? *Poverty Matters Blog*, April 27, 2011.
- Caravani A., and Bird N. 2010. Climate Finance Fundamentals: Evolving Global Climate Finance Architecture. *Heinrich Boll Stiftung (North America) and ODI*, breiging 2, Nov. 2010.
- CLS Bank. 29 October 2009. Statement by CLS Bank on trade data repositories. [www.cls-group.com/Media/Pages/NewsArticle.aspx?id=46](http://www.cls-group.com/Media/Pages/NewsArticle.aspx?id=46).
- CRS report for Congress. 7 July 2006. Treasury's Terrorist Finance Program's access to information held by the Society for Worldwide Interbank Financial Telecommunication (SWIFT). Jennifer K. Elsea and M. Maureen Murphy, Legislative Attorneys, American Law Division, Order Code RS22469.
- Committee on Payment and Settlement Systems (CPSS). June 2008. The interdependencies of payment and settlement systems. Bank for International Settlements ([www.bis.org](http://www.bis.org)).
- Committee on Payment and Settlement Systems (CPSS). May 2008. Progress in reducing foreign exchange risk. Bank for International Settlements ([www.bis.org](http://www.bis.org)).
- Committee on Payment and Settlement Systems (CPSS). May 2005. New developments in large-value payment systems. Bank for International Settlements ([www.bis.org](http://www.bis.org)).

EurActiv. 9 and 13 April 2010. MPs mark red lines as EU-US anti-terror talks start. <http://www.euractiv.com/en/infosociety/meps-mark-red-lines-eu-us-swift-talks-start-news-427859>.

*Expatica*. 27 June 2006. NBB 'aware' of Swift's actions since 2002. [www.expatica.com](http://www.expatica.com), cited by Wikipedia, Terrorist Finance Tracking Program, [http://en.wikipedia.org/wiki/Terrorist\\_Finance\\_Tracking\\_Program](http://en.wikipedia.org/wiki/Terrorist_Finance_Tracking_Program).

*Financial Times*. 12 April 2010. Settlement model aids FX market success. *FTfm* p. 8.

FXJSC. September 2009. Paper on the foreign exchange market. Manuscript. (The London Foreign Exchange Joint Standing Committee) <http://www.bankofengland.co.uk/markets/forex/fxjsc/fxpaper090923.pdf>.

G20 Seoul Summit Communiqué, Nov. 11-12 2010.

Hillman, D., S. Kapoor, and S. Spratt. 2006, December. Taking the next step: Implementing a currency transaction development levy. Technical report, Stamp Out Poverty, commissioned by the Norwegian Ministry of Foreign Affairs.

IMF, 2010. *Fair and Substantial Contribution by the Financial Sector: Final report for the G20*, June 2010.

Ketkar S and Ratha D eds. 2009. *Innovative Financing for Development*. World Bank

Leading Group on Innovative Financing for Development. 2010. *Globalizing Solidarity: The Case for Financial Levies*.

McCulloch N., and Pacillo G. 2010. *Is a Financial Transaction Tax a Good Idea? A review of the evidence*. *Institute of Development Studies* In Focus Policy Briefing, Issue 14.2.

New York Times, 23 June 2006.

Prasad E. 2009. *A G-20 Insurance Solution for Global Imbalances*. *Brookings and Wall Street Journal Asia*, March 10, 2009.

Schmidt, Rodney. 2008. *The Currency Transaction Tax: Rate and Revenue Estimates*. United Nations University Press: Tokyo, New York, London.

\_\_\_\_\_. 2001. Efficient Capital Controls. *Journal of Economic Studies* 28/3: 199-212.

\_\_\_\_\_. 2000. A feasible foreign exchange transactions tax. In W. Bello, N. Bullard, and K. Malhotra (eds.), *Global Finance: New Thinking on Regulating Speculative Capital Markets*: 215-38. Zed Books: London, New York.

Spratt, S. 2006, July. The Tobin tax in the 21<sup>st</sup> century: Financing development and promoting international financial stability. Technical report, New Economics Foundation, [http://www.currencytax.org/files/policy\\_papers/spratt2006.pdf](http://www.currencytax.org/files/policy_papers/spratt2006.pdf).

SWIFT. February 2009. SWIFT for high-value payment market infrastructures – End-to-end solutions for payment clearing and settlement. Available at [www.swift.com](http://www.swift.com).

The Robin Hood Tax. 2010. [A Global Financial Transaction Tax for Climate Funding: Investing in our Collective Future.](#)

UN, ILO, WHO. 2011. [Social Protection Floor Initiative.](#)

UN. 2010. [Report of the Secretary General's High-Level Advisory Group on Climate Change Financing.](#) UNAGF

Wikipedia, Terrorist Finance Tracking Program, [http://en.wikipedia.org/wiki/Terrorist\\_Finance\\_Tracking\\_Program](http://en.wikipedia.org/wiki/Terrorist_Finance_Tracking_Program).

[www.cls-group.com](http://www.cls-group.com).

[www.swift.com](http://www.swift.com).