

## **Notes on the Feasibility and Impact of a general Financial Transactions Tax**

Civil society consultation with the IMF on 28 January 2010

Rodney Schmidt  
Principal Researcher  
The North-South Institute  
rschmidt@nsi-ins.ca

The FTT is a tax on large-value financial market activity. It has been applied to stock trading on securities exchanges in some countries, but not to most other financial instruments. Its purposes are:

- To reduce the overall size of the financial sector relative to the real economy, especially insofar as the financial sector is now relatively under-taxed.
- To reduce the share of very short term and short term trading in total financial activity, to help avoid long-term asset price bubbles.
- To raise revenues for financial crisis insurance funds, fiscal deficit reduction, and addressing major global challenges such as poverty, health, and climate change.

### **Feasibility of the FTT**

We may distinguish between technical and design feasibility. The first refers to the mechanics of collecting the tax: can it be done in a practical way, without requiring major new institutions or interventions, and without significant evasion? The second refers to application of the tax: which instruments, markets, and geographic areas should be covered? What should the tax rate be?

These questions need to be addressed to all of the major asset classes:

- stocks and equities
- bonds and money market funds
- derivatives
- foreign exchange
- cash (bank accounts)

Stocks and equities and some derivatives are traded on exchanges, while the other instruments, including most derivatives, are traded off-exchange, or 'over-the-counter' (OTC).

### *Technical feasibility*

All large-value financial transactions are made in three steps:

First, dealers agree to trade, and set the instruments, amounts, and price. This can be done directly between them or through a broker, by telephone or through an electronic trading platform.

Second, the dealers' banks match the two individual instruments to be exchanged and confirm the terms of the trade. This is done electronically by a central 'clearing' system.

Third, the two individual financial instruments are transferred simultaneously, with legal recognition given to the two payments, meaning they are irrevocable. This is done automatically and electronically by a central 'settlement' system.

Stocks and some derivatives are traded on exchanges. It is technically easy to collect a financial tax from exchanges because all three steps to a financial transaction are, essentially, combined. Agents trade with a single 'market-maker' or 'central counterparty' which also operates its own clearing and settlement system (some exchanges share a clearing and settlement system). Transactions taxes can be collected by the central counterparty at the point of the trade, or automatically in the clearing or settlement process.

The other financial instruments separate the three parts of each transaction. Trading is OTC and dispersed, sometimes around the globe. However, clearing and settlement are each highly formalized and globally centralized, and may also be linked to each other. Both systems electronically and automatically process the two individual or gross payments to a trade. (In settlement systems this is called "payment-vs-payment", and is done via a process called "real time gross settlement" which was designed to eliminate settlement risk. Payments are processed individually even though actual transfers to and from banks may be reduced by netting out offsetting obligations.)

Thus, a tax on OTC financial instrument transactions can be collected at the point of clearing or of settlement.

A single clearing system, SWIFT and its affiliates, provides clearing services for all large-value financial transactions in all asset classes and markets around the world. Deriv/SERV is the only specialized clearing services for OTC credit, interest rate, and equity derivatives transactions around the globe. Deriv/SERV can also be accessed via SWIFT.

The Continuous Linked Settlement (CLS) Bank settles 55 % of global foreign exchange transactions. The remaining foreign exchange transactions are settled in the domestic Large-Value Payments System (LVPS) of each country. The LVPS of each country also settles bond, money market, and cash transactions.

The potential to collect an FTT on OTC instruments at the point of clearing or settlement has been shown in detail for the foreign exchange market (currency transaction tax): see Hillman, Kapoor, and Spratt, 2006; Schmidt, 2008, 2001, 2000; and Spratt, 2006.

*Design feasibility:*

To minimize unintended effects of an FTT, its design should follow two principles. First, coverage across agents and asset classes and financial instruments which are close substitutes should be as broad as possible. Second, tax rates across markets and instruments should be uniform, relative to underlying transactions costs. Both of these are intended to minimize perverse incentives created by the tax to shift financial activity to areas with lower effective tax burdens.

The technical ability to collect an FTT from exchanges and from centralized clearing and settlement systems for OTC instruments makes it feasible to apply the tax across the financial sector.

However, there are two cases at least in which it seems likely the tax could be applied to particular market segments without significant unintended distortions. First, a tax on stock exchanges alone has been implemented often and, with appropriate conditions and design, such as in the UK, with success. Second, there are no close substitutes for foreign exchange trading as such, so it seems likely a tax could be applied successfully to the foreign exchange trading alone. (Foreign exchange trading can be mediated through any number of financial instruments or asset classes, but all are readily identified as currency transactions because the two associated payments are denominated in different currencies.)

Transaction costs, such as broker's fees, margin requirement, and bid-ask spreads, differ substantially across markets and financial asset classes. Tax rates should therefore be set relative to these average costs in each market or asset class. Average costs have been measured for the United States and tax rates proposed by Pollin, Baker, and Schaberg, 2003.

*Unilateral feasibility*

Clearly it is possible for a country to apply a securities transaction tax unilaterally, without significant flight to exchanges in other countries, as long as the tax is designed appropriately. The UK is doing this already, even with a tax rate of 0.5 %, one of the highest in the world. The tax is collected on all transactions of companies incorporated in the UK, whether the transaction occurs in the UK or overseas, and whether the company resides in the UK or overseas.

Similarly, if an FTT on OTC assets were collected at the point of globally centralized clearing or settlement, it would apply to all agents regardless of where in the world the dealing rooms are located or the trade is made. For example, the two dealers engaging in

a foreign exchange transaction tend to be located in different countries, yet the transaction will be cleared by SWIFT and settled at CLS Bank.

### **Market impact**

An FTT would reduce the number of financial transactions per period, lengthen the average term of transactions, and might affect the volatility of asset prices.

There is extensive empirical evidence that financial taxes or, equivalently, an increase in transactions costs, reduces the number of transactions. However, the extent of the reduction in turnover has not often been measured except, recently, for the foreign exchange market. There Schmidt (2008) found an elasticity of  $-0.43$ , meaning, in practice, that a currency transaction tax of  $0.005\%$  would reduce the size of the foreign exchange market by  $14\%$ . The importance of this is that activity responds inelastically to taxes or transaction costs. However, the elasticity may well differ substantially across asset classes.

The empirical evidence on the effect of transaction taxes on asset price volatility is inconclusive. Some studies find that a tax would increase volatility, others that it would reduce volatility or have no effect at all. However, the issue at hand is not really whether an FTT would marginally affect price volatility around an average or equilibrium price level. Price volatility around a mean changes marginally all the time, without significant financial or real economy effects. These empirical studies are largely not relevant.

An FTT is intended to address, in part and in conjunction with other, regulatory, measures, asset price bubbles and other long-term deviations of prices from fundamental (real economy) or equilibrium levels. Theory suggests that an FTT would be helpful in this way insofar as excessively short-term trading horizons contribute to bubbles or such deviations. However, there is not much empirical evidence on the relationship between short-term trading and long-term price behavior.

### **Tax incidence**

An FTT would be paid in the first instance by large dealing banks. However, under certain circumstances, it might be possible for the dealing banks to pass on the cost of the tax to their customers, by raising their bid-ask spreads and other service fees.

It may be helpful here to contrast the structures of two very different financial markets, namely stocks traded on exchanges and foreign exchange traded OTC. In particular, the existence or not of large and distinct wholesale and retail markets seems important.

All agents participating in a securities exchange trade stocks with a single central counterparty. A securities transaction tax would be collected from the CCP. But, since the CCP does not trade on its own account, it will widen the spreads it offers dealers to pass the full cost of the tax on to them. Essentially, there is no wholesale market on an exchange, only a retail market. Stock dealers may be large banks, pension funds, managers of mutual or hedge funds, or individuals. The banks and fund managers may be able to pass on the average costs of the tax to their clients by raising general fees.

There is no CCP in the foreign exchange market. Instead, there are 60 or 80 large dealing banks all trading with each other. They take positions against each other and try to pass off risks and costs to each other. These dealing banks, which must have direct access to accounts in central settlement systems and central banks to participate, constitute a large and competitive wholesale market for foreign exchange. They therefore share transaction costs and risks among each other. There is also a retail market for foreign exchange, consisting of the clients of the dealing banks. The retail market is also competitive, and quite distinct from the wholesale market. This is seen by the enormous difference in transaction costs and low of correlation of changes in transaction costs between them. It does not seem likely, then, that foreign exchange dealers would be able to pass on an important share of the tax to their retail clients.

## References

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.

Pollin, R., D. Baker, and M. Schaberg. 2003. Securities Transaction Taxes for U.S. Financial Markets. *Eastern Economic Journal* 29/4:527-58.

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).