RAISING REVENUE

A review of Financial Transaction Taxes throughout the world

A report for Health Poverty Action and Stamp Out Poverty by Daiana Beitler of Just Economics

HEALTH POVERTY ACTION

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Box 1.1 Glossary of Terms

Bank Debit Taxes

Bank debit taxes are usually levied on withdrawals from, or other debits to, bank accounts, including cheque clearance, cash withdrawals and payments on loan instalments.

Financial Disintermediation

Disintermediation is a removal of funds from financial intermediaries with the purpose of conducting transactions in some other way, for example, in cash, by barter or through accounts not subject to a particular tax.

Quasi-money

Quasi-money refers to currencies developed as an alternative to the dominant national or multinational currency systems. They are created by individuals, corporations, organisations or even by local governments in a certain area within a particular country.

Security

A security is an instrument representing financial value. There are two types of securities: debt securities (banknotes, bonds and debentures) and equity securities (e.g. common stocks and derivative contracts such as forwards, futures, options and swaps).

Security Transaction Taxes

Security transaction taxes are levied every time a financial security changes legal ownership. Securities taxed range from shares and bonds to futures and options.

Stamp duty

Historically, dating back to physical stamps on documents pertaining to the transfer of legal ownership, most notably purchase of property. In the modern UK context, the stamp is no longer physical, with stamp duty of 0.5% levied on the purchases of shares.

Tax Revenue Productivity

Tax revenue productivity is defined as the ratio of tax revenue (in percent of GDP) to the tax rate (Baca-Campodonico *et al*, 2006:10).

RAISING REVENUE

1. INTRODUCTION

Financial Transaction Taxes (FTTs) are small taxes levied on various types of financial instruments that range from shares, bonds (government and corporate), derivatives (futures, forwards, swaps and options) to bank debits and credits. The rates of existing taxes vary from a maximum of 2 percent to as low as 0.00001 percent. They have been implemented in at least 40 developed and developing countries over many decades for two main reasons: either as a means of raising revenue or as a way of regulating markets and enhancing financial stability. The focus of this report is the former: how countries, and in particular developing countries, can harness some of the enormous wealth that exists in their financial sectors to raise revenue to fund public spending and safeguard the provision of services such as healthcare.

Whilst much academic analysis has been done on the theoretical merits, or otherwise, of various classes of transaction taxes, there is scant literature available on the many FTTs that already exist. In this report, we review the empirical evidence on the main characteristics and impact of financial transaction taxes around the world. Whilst the size and scope of financial markets varies greatly from country to country, as does the design of each individual FTT, there are some key lessons and best practices that can be elicited from these diverse experiences.

In the first section of this report we present eight case studies: Taiwan, Brazil, Argentina, Japan, Peru, China, UK and Sweden. We further look at particular experiences in the US, India, Chile, Colombia and France, culminating with a table of FTTs implemented around the globe. The case studies were selected to reflect different combinations of functions and form. They include a number of developing countries and draw out important lessons for how they can successfully implement FTTs as revenue raising tools. We also focus on how to avoid potential pitfalls. As we shall see, poorly designed FTTs fail to achieve the outcomes for which they were implemented.

In the concluding section we highlight the underlying characteristics of: tax rate, market impact and stability, implementation costs, regulatory effect, evasion, ring-fencing funds and vested interest. We show that well designed FTTs that raise significant revenue are not only feasible, but already exist, delivering regular income to governments. In 2005 Grabel estimated the aggregate revenues for FTTs in all developing countries to be in the range of $2.9 billion - $14.5 billion (see section 3.2). This highlights that for developing countries in particular there is the potential to build on the success of other FTTs and raise their own revenue from their financial sector and make a significant contribution to public spending.

We are interested in FTTs that affect the inter-bank or wholesale market and those orientated towards the retail market, such as bank debit taxes, but do not consider non-transaction taxes on financial assets (i.e. capital gains tax).

In addition, and especially with regards to the market impact of FTTs, the empirical literature presents a number of methodological weaknesses, particularly the wide range of measures used to calculate volatility, which makes it hard to compare results across studies (McCulloch, 2010:12). This point ought to be addressed in future research.

2. CASE STUDIES

FTTs are commonplace and have been introduced permanently or temporarily over many decades in at least 40 countries, including: Argentina, Australia, Austria, Belgium, Brazil, Chile, China, Colombia, Denmark, Ecuador, Finland, France, Germany, Greece, Guatemala, Hong Kong, India, Indonesia, Ireland, Italy, Japan, Malaysia, Morocco, Netherlands, New Zealand, Pakistan, Panama, Peru, Philippines, Portugal, Russia, Singapore, South Africa, South Korea, Sweden, Switzerland, Taiwan, UK, US, Venezuela and Zimbabwe (see table on page 22 for more information).

In this section, we explore eight case studies: Taiwan, Brazil, Argentina, Japan, Peru, China, United Kingdom and Sweden. In addition, we give a brief overview of five other countries: US, India, Chile, Colombia and France and how their experiences give important insights into FTT feasibility.

2.1 Taiwan

Financial transaction taxes were first introduced in 1965 at a uniform rate of 0.15 percent, which has changed several times since then. Today, Taiwan is a particularly good example with which to analyse security transaction taxes because it applies a sophisticated system of differentiated rates of taxation (0.3 percent on shares, 0.1 percent on bonds, between 0.0000125 percent and 0.06 percent on futures depending on the type of contract and between 0.1 and 0.6 percent on options; Kapoor, 2010:9). Such a multi-tiered tax regime helps to identify the desirable level of reduction in trading activities, which should be large enough to reduce short-term speculative trading, but not so large as to hamper normal functioning of markets (TUAC, 2010b). According to Kapoor (2006:9), this can be considered best practice in this type of taxation, allowing policy-makers to fine-tune the use of these tools not just through the introduction of differential rates across different product markets but also by keeping open the possibility of changing the rates if circumstances justify. This potentially offers an additional set of policy tools to prudential regulators to control systemic risk without jeopardising growth in the economy (Kapoor, 2006:10).

Instruments affected and rates

Different tax rates apply depending on the type of contract. The Taiwanese government has recently suspended the tax on bond transactions until the end of 2016. No official reason has been given for this decision.

Table 2.1 Financial Transaction Tax Rates and Bases in Taiwan

Type of tax	Rate (%)	Comments
Securities transaction tax	0.3	For shares or share certificates embodying the right to shares issued by companies
	0.1	For corporate bonds and other securities approved by the government*
Futures transaction tax**	Between 0.0000125 and 0.06	Per transaction on the value of stock index futures contracts
	Between 0.0000125 and 0.00025	Per transaction on the value of contracts for interest rates
	Between 0.1 and 0.6	Per transaction for options based on premium paid
	Between 0.0000125 and 0.06	Per transaction on the value for other futures contracts

*The Taiwanese government has recently suspended the tax on bond transactions until the end of 2016.
** Different rates apply depending on the type of contract.
Source: Darvas and Von Weizscaker, 2010

Coverage and exemptions

A revision of the Securities Transaction Tax Act was passed to exempt corporate and financial bond transactions from the securities transaction tax for seven years beginning January 2010. Under the provisions of the Act, when an investor sells corporate bonds or other securities a transaction tax of 0.1 percent of the value must be paid on each transaction.

Revenue

As can be seen from table 2.2 below, revenue collected has been significant and represented 5.5 percent of total tax revenue in 2008. This figure is around 4 percent higher than in other countries such as UK, Ireland and South Africa, since the tax is applied to such a wide range of transaction types.

Collection method

FTTs are levied per transaction and collected by the Futures Commission Merchant on the date of the transaction and paid to the national Treasury on the following day along with a filled-in payment slip. Interestingly, collecting agents that electronically record transactions daily receive a reward, payable by the Ministry of Finance, equal to one thousandth of the tax collected (up to a maximum of NT$24 million in annual rewards per agent). Those that fail to register transactions face a fine of not less than 10 and not more than 30 times the amount of uncollected tax (Taiwan Ministry of Finance).

Evidence on impact and market stability

After 2000, there was a significant reduction in the fixed rate from 5 to 2.5 basis points. The effects of this were as follows:

1. The Taiwan Futures Exchange (TAIFEX) increased its trading volume and the bid-ask spread has since decreased;
2. Price volatility did not increase;
3. Transaction tax revenues during the year following the reduction in the transaction tax declined by 15 percent compared to the transaction tax revenues in the pre-tax reduction period. However, this reduction in tax revenues is not in proportion to the 50 percent decrease in the transaction tax rate (Chou and Wang, 2005).

Evidence on avoidance

Evidence on avoidance is not available. However, anti-avoidance rules are particularly strict in Taiwan. They include:

- Transfer pricing rules (taxpayers are required to maintain documentation of related party transactions that must be attached to corporate income tax returns);
- Disclosure requirements (tax returns need to disclose information on transactions)

Thin capitalisation rules are also being discussed.

In Summary

Taiwan provides an excellent example of a sophisticated FTT that has a regulatory effect through a multi-tiered system of tax rates, but also raises significant revenue for the government. In 2008 it raised 5.5 percent of total tax revenue – much higher than many countries – yet it does this without disrupting markets.

Table 2.2 Revenue from Financial Transaction Taxes in Four Countries (2001-2008)

Year	UK		Ireland		Taiwan		South Africa	
	In GBP billions	% total tax revenue	In EUR billions	% total tax revenue	In US$ billions	% total tax revenue	In US$ billions	% total tax revenue
2001	2.9	0.9	0.35	1.2	1.9	5.2	0.4	1.6
2002	2.6	0.8	0.30	1.0	2.3	6.5	0.4	1.6
2003	2.6	0.7	0.26	0.8	2.2	5.9	0.6	1.6
2004	2.7	0.7	0.26	0.7	2.8	6.7	1.0	2.1
2005	3.5	0.9	0.32	0.8	2.3	4.8	1.3	2.4
2006	3.8	0.9	0.41	0.9	2.9	5.9	1.5	2.5
2007	4.2	0.9	0.61	1.3	4.1	7.8	1.4	1.9
2008	3.2	0.7	0.42	1.0	3.0	5.5	1.4	1.9

Source: Darvas and Von Weizscaker, 2010

2.2 Brazil

Brazil first introduced a bank debit tax in 1993 but taxes were abolished and reintroduced several times since that date. The longest lasting bank debit tax was put in place in 1997 called *Contribuicao provisoria sobre movimentacao ou transmissao de valores e de creditos e direitos de natureza financiera* (CPMF) at an initial rate of 0.20 percent increased from 2001 to 0.38 percent. It was discontinued by the Senate in 2008. Originally, it was earmarked to finance health care programmes (0.2 percent), to combat poverty (0.1 percent) and for social assistance (0.8 percent). However, the Supreme Court later abolished the tax on the grounds that the Constitution ruled out the earmarking of revenue from such taxes (Baca-Campodonico *et al*, 2006:21). Although taxes were not officially hypothecated afterwards, it is widely known that bank debit revenue allocated to local governments financed healthcare (particularly HIV prevention) programmes. This represents a significant example of how other developing countries can raise their own revenue to help finance public services.

In addition to bank debit taxes, Brazil introduced a tax on financial operations in 1999, called *Imposto sobre Operações de Crédito, Câmbio e Seguro* (IOF), whereby capital inflows regarding portfolio investments and investments in local assets are subject to a 2 percent tax to be paid at the point of the settlement date of the Brazilian Reals. In other words, the tax is paid when foreign currency is converted into Brazilian Reals. The 2 percent financial transaction tax applies to all fixed income and equity investments by foreign investors (both legal entities and individuals) on the Brazilian stock and capital markets. The taxable base for calculating the IOF is the amount of foreign currency converted into Reals that will be invested in Brazil.[1] A subsequent return of a foreign investor's initial capital investment (i.e. the conversion of Brazilian currency into foreign currency), however, is exempt from the tax.

According to the government, the IOF tax is designed to slow the appreciation of the Brazilian currency and to prevent speculation in the Brazilian stock and capital markets. This implies a disincentive for high-frequency, short-term trading as the impact of the tax is reduced as the length of the investment increases (and vice versa). In addition to this, it has been claimed that recent increases in the tax were in response to the need to compensate for the loss of tax revenue caused by the abolition of the CPMF in 2008. The government increased the IOF rate in 2008 on several financial transactions involving foreign exchange, loans and insurance to 0.38 percent. Since 2009, the IOF has been levied at the rate of 5.38 percent on foreign loans (former rate: 5 percent), where the average payment term of the loan is lower than 90 days. For loans with an average payment term higher than 90 days, the IOF rate is now 0.38 percent (former rate: 0 percent).

1. It is important to clarify that this is not an example of a Currency Transaction Tax, where the application of the tax would need to apply to all trades in the wholesale foreign exchange market, rather, it is a measure that taxes the conversion of foreign currency into Brazilian Real on the occasion of an investment from abroad into Brazil.

Table 2.3 Gross Revenue from Brazil's Bank Debt Taxes

Year	Tax Rate	Gross Revenue		Productivity
		In percent of GDP	In percent of tax revenue	
1994	0.25	1.06	3.6	5.10
1997	0.20	0.80	2.8	4.28
1998	0.20	0.90	3.0	4.44
1999	0.22	0.83	2.9	3.69
2000	0.34	1.33	4.8	4.04
2001	0.36	1.45	7.4	3.95
2002	0.38	–	6.1	4.05
2003	0.38	1.48	–	3.90

Source: Coelho *et al*, 2001; Ebril and Summers, 2001; and IMF estimates, Suescun, 2004.

Instruments affected and rates

Stocks, Corporate Bonds, Government Bonds, Futures, Bank Debits (all at 0.38 percent), Capital Inflows (2 percent).

Coverage and exemptions

There is no detailed information on coverage and exemptions for taxes on securities. In the case of Bank Debit taxes, all debits by non-bank depositors from current, investment, time deposit and savings accounts were subject to taxation, including over-draft facilities in current accounts and transactions in post and futures markets. Government accounts (all levels of governments, including government agencies) were exempt, as well as withdrawals from individual social security accounts and unemployment insurance. Non-profit organisations were also exempt from CPMF taxation.

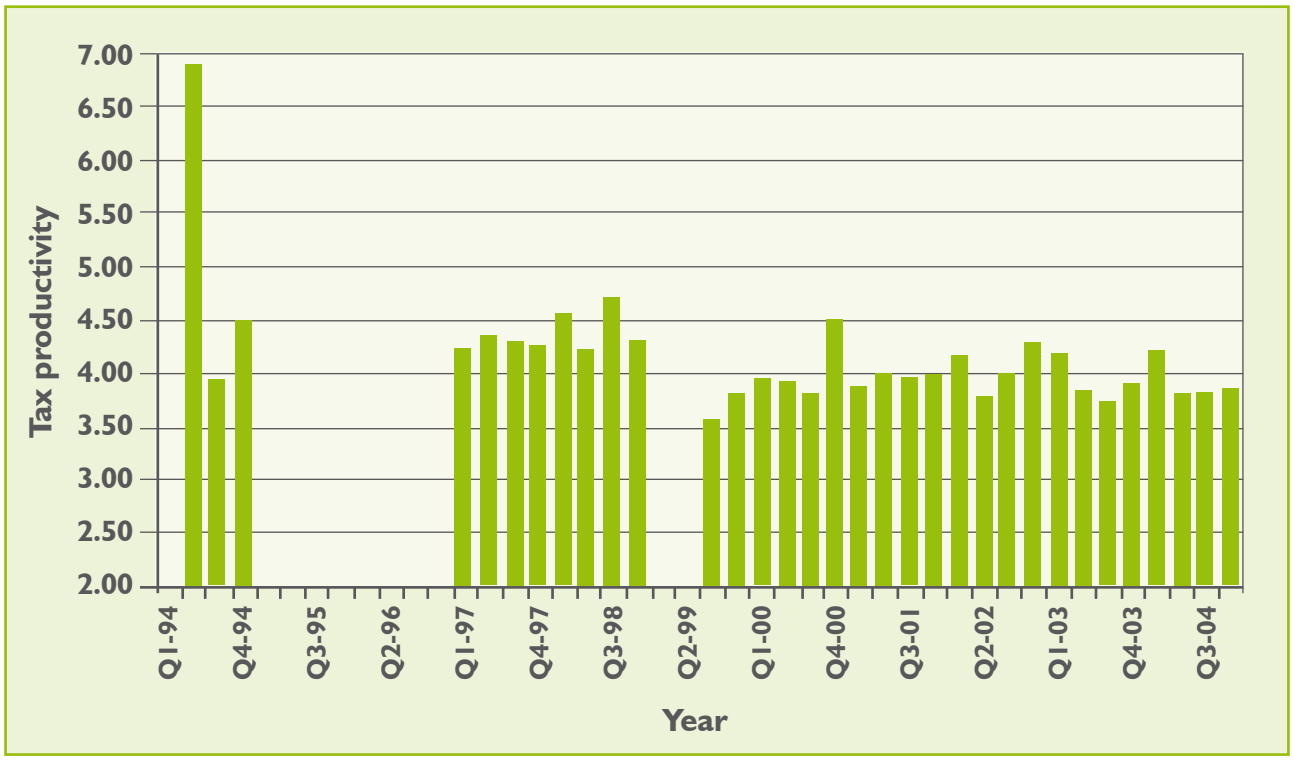
Exemptions for IOF include: credit transactions carried out by Brazil's National Bank for Economic and Social Development or its agents, or by state-owned financing company FINEP; credit transactions made by the state-owned financing agency FINAME; and purchases of foreign currency by Brazilian banks as well as simultaneous exchange transactions.

Revenue and tax productivity[2]

There is no empirical data available on revenue collected by securities transaction taxes or by the IOF. However, data available for the CPMF shows that overall performance was strong and consistent: CPMF revenues rose from approximately 0.8 percent of GDP in 1997-99 to 1.3 percent of GDP in 2000 (Table 2.3), and productivity does not seem to have been affected adversely by the successive increases in the CPMF rate over time (Figure 2.2). This is likely to have been the result of three factors. Firstly, the latest CPMF rate was not excessively high. Secondly, the Brazilian banking system is relatively sophisticated and widely used for payments, and finally the CPMF was levied on bank debits only, rather than on both debits and credits, as in other countries where revenue productivity has deteriorated over time. As we elaborate in more detail in the conclusions, this again highlights how the implementation details affect success, and in particular the importance of setting an appropriate rate. There is also a strong relationship between exemptions and productivity as for example tax levied on both debits and credits increases their potential evasion, thus reducing their productivity.

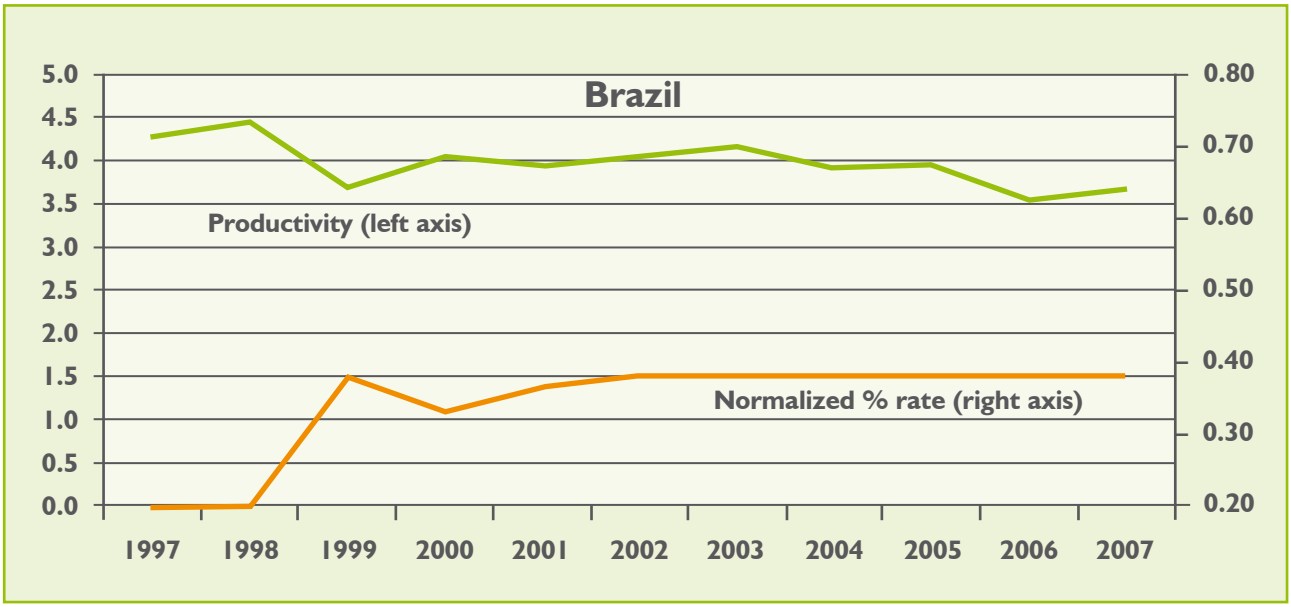
2. Tax revenue productivity is defined as the ratio of tax revenue (in percent of GDP) to the tax rate, (Baca-Campodonico *et al*, 2006:10).

Figure 2.1 Bank Tax Revenue Productivity in Brazil



Source: Baca-Campodonico *et al*, 2006:22

Figure 2.2 FTTs Productivity in Brazil



Source: Coehlo, 2009:6

Evidence of market impact

There is no information available on the impact of securities taxes in Brazil. However, an assessment of the allocational effects of the CPMF in Brazil is of particular interest as there is consistent evidence that the CPMF altered financial and investment behaviour, especially in the wake of its introduction at the end of January 1997. Between January and February 1997, demand deposits increased by almost 40 percent as the introduction of the CPMF reduced the opportunity cost of holding funds in non interest-bearing demand deposits. In other words, it increased the difference in comparative benefits between holding a current and a savings account.

The evidence can be broken down between the impact of the tax on the markets for fixed interest instruments and its impact on other securities. In the case of the former, with the agreement of the regulatory authorities, financial institutions and investors have redesigned their investment strategies in ways to minimize the impact of the tax on fixed income markets by introducing new financial products. This implies that, in these instances, the market has ended up with a set of financial instruments that are somewhat different from those in place before the tax was introduced.

Although there is some evidence that the tax had a more lasting impact on securities markets, notably its alleged role in exacerbating the migration of business from BOVESPA (the Sao Paulo Stock Exchange) to other foreign equity markets (Coelho *et al*, 2001). However, it is difficult to be definitive about the reasons for these shifts, as several other factors are also likely to be involved, such as the increased integration of Brazilian firms in international capital markets and access to new sources of liquidity for Brazilian firms.

Incidence

The evidence on incidence is mixed. The bank debit tax was progressive in so far as it fell on those with a bank account, which are a minority in the wealthiest group of the population (Coelho, 2009:14). However, studies have pointed out that the incidence of the tax was approximately proportional over the entire income distribution, making the tax neither progressive nor regressive (Paes-Bugarin, 2006). Another study (Zockun, 2007), using household consumption data and the incidence of the FTT through the price system, found that it fell proportionately more on lower-income families, supporting a claim of regressivity.

Collection methods and evidence of avoidance

IOF is collected by banks where the transactions take place (not at the local custodian) so it is extremely difficult to avoid. This is particularly important as non-resident investors need to sign an agreement with a Brazilian bank authorised to operate in the foreign currency exchange market,

which then registers the investor in the Central Bank of Brazil (BCB). Each currency exchange operation made by the non-resident investor for the internalisation of resources in Brazil will generate an Electronic Declaratory Registration (RDE). This must also be applied to the sending registration for those resources going to foreign countries.

Avoidance of bank debit taxes was prevented by allowing cheques to be endorsed only once. Tax avoidance channels were employed however: savings migrated abroad and FTT-proof investment mechanisms were developed, such as exclusive funds whose shares were all held by a single investor. Partly in response to these practices, purchases of stocks were exempted from 2001, and an investment account was introduced in 2004 allowing tax-free portfolio reallocations within the same financial institution (Coelho, 2009).

In summary

Brazil represents an important example of a FTT regime in a developing country since it has a relatively large financial sector and long history of implementing sophisticated FTTs. These have served a dual purpose both to encourage certain types of market behaviour (such as longer term investments) and as a revenue raising mechanism. Grabel (2005, see appendix) estimates Brazil could potentially raise US$227million a year from FTTs. Critically, Brazil also successfully earmarked revenue for use by local governments to fund health programmes, which represents a significant example of how other developing countries can raise their own revenue to support healthcare and other public services.

2.3 Argentina

Argentina was the first country in Latin America to introduce a temporary bank debit tax at a time of fiscal distress. The tax was temporarily introduced at different rates over the past three decades. It was first adopted in 1976 at a rate of 0.1 percent and reintroduced again in 1983 at same rate. The tax base was broadened to include both debits and credits when it was reintroduced in March 2001 at the current rate of 0.6 percent (but being tapered in steps of 0.25 and 0.4 percent). This latest tax, called *Impuesto sobre los debitos y creditos en cuentas bancarias,* has been renewed year after year and it is currently being discussed in Parliament.

Instruments affected and rates

Stocks, Corporate Bonds, Government Bonds, Futures, Bank Debits (all at 0.60 percent).

Coverage and exemptions

Currently, the tax is levied at the statutory rate of 0.6 percent. However, because debits and credits, as well as buying and selling securities are taxed, the effective rate is 1.2 percent. A reduced rate of 0.25 percent (effective rate of 0.5 percent) is applied to taxpayers exempt from VAT and income tax. Grain and cattle brokering, credit card operations and electronic transfers via the Internet are taxed at 0.075 percent (effective rate of 0.15 percent). There is an extensive list of exemptions for bank debit taxes, including short-term interbank transactions (for those carried out within a day), financial flows of the administration of pension plans, credits originating in exports and the acquisition and redemption of shares of mutual funds (Baca-Campodonico *et al* 2006:20). The exemption to short-term interbank transactions is interesting as some would argue that the interbank market is one of the most important places to levy FTTs. Unfortunately, there is no official explanation available to understand the rationale for this, especially as interest generated from those short-term transactions are not exempted.

Collection method

All financial transaction taxes are collected by banks and other financial intermediaries - these are legally obliged to collect the tax. 70 percent of all revenue goes directly to the Central Government and 30 percent is ring-fenced for local governments.

Revenue

There is no information available on revenue collected specifically by taxes on securities. It is interesting to note that early bank debit taxes in Argentina were considerably less productive than later ones. Thus, it is a good example of the relationship between tax productivity and rates, as its lowest levels of productivity can be found during times where rates were particularly high (Baca-Campodonico *et al*, 2006). In 2009, however, revenue from bank debit taxes represented 11 percent of total tax revenue in the country, being the third biggest source of fiscal revenue after income tax and VAT.

Table 2.4 Gross Revenue from Argentina's Bank Debt Taxes

Year	Tax Rate	Gross Revenue		Productivity
		In percent of GDP	In percent of tax revenue	
1989	0.70	0.66	4.3	1.81
1990	0.30	0.30	2.0	0.94
1991	1.05	0.91	5.4	0.99
1992	0.60	0.29	1.5	0.81
2001	0.50	1.45	4.2	1.06
2002	0.60	–	9.6	–

Source: Coelho *et al*, 2001; Ebril and Summers, 2001; and IMF estimates, Suescun, 2004.

Figure 2.3 Bank Tax Revenue Productivity in Argentina

Source: Baca-Campodonico *et al*, 2006:22

Evidence on impact

Since 2001, financial disintermediation and growth in use of quasi-money[3] have been factors. Disintermediation is a removal of funds from financial intermediaries with the purpose of conducting transactions in some other way, for example, in cash, by barter, or through accounts not subject to a particular tax. It is important to point out, however, that the growth in quasi-currencies, such as tax-exempt notes issued by provincial governments (Baca-Campodonico *et al,* 2006) and the increase in demand for cash are in fact significantly related to the collapse of confidence in the banking system as a result of the financial crisis in 2001. This is illustrated by figure 2.5 as movements in the ratio of currency outside banks directly correlate to times of crisis. According to Central Bank data, the ratio of cash outside banks (including quasi-money) as a percent of banks' total liquid assets more than doubled.

3. Quasi-money refers to currencies developed as an alternative to the dominant national or multinational currency systems. They are created by individuals, corporations, organisations or even by local governments in a certain area within a particular country.

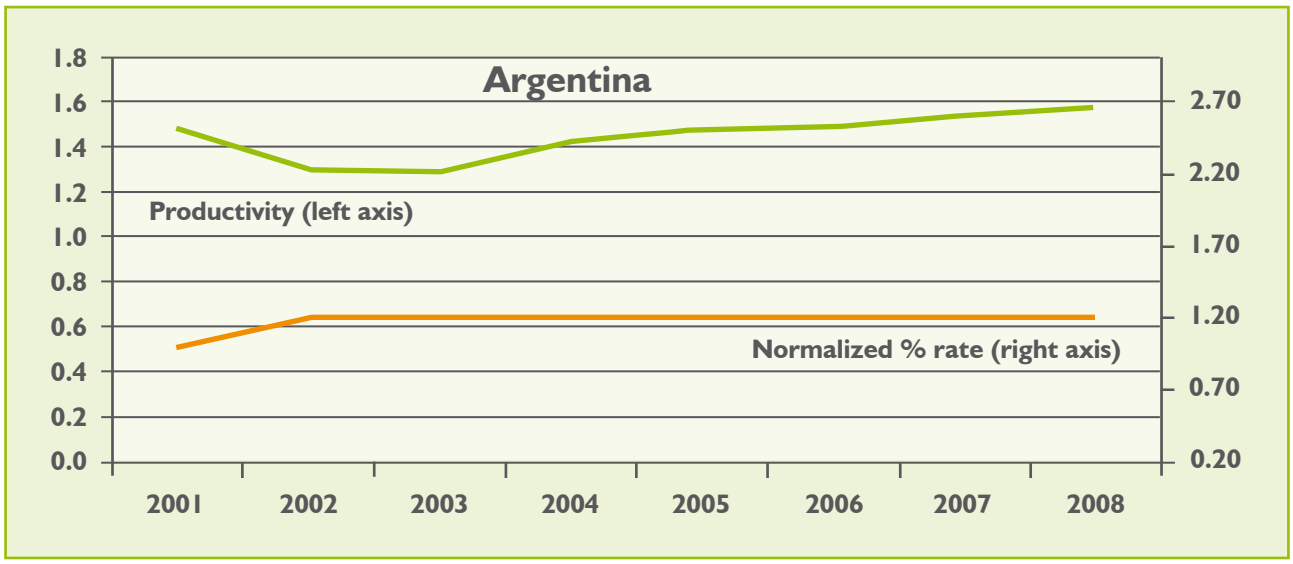
Evidence on avoidance

The use of foreign accounts by Argentine resident taxpayers has become extremely common, especially to neighbouring Uruguay. To minimise tax payments, agents avoided depositing cheques by endorsing them and passing them along to creditors. Cheques (especially bearer cheques) circulated repeatedly, without ever being presented to the bank for settlement. For this reason, cheques can now only be endorsed once.

In Summary:

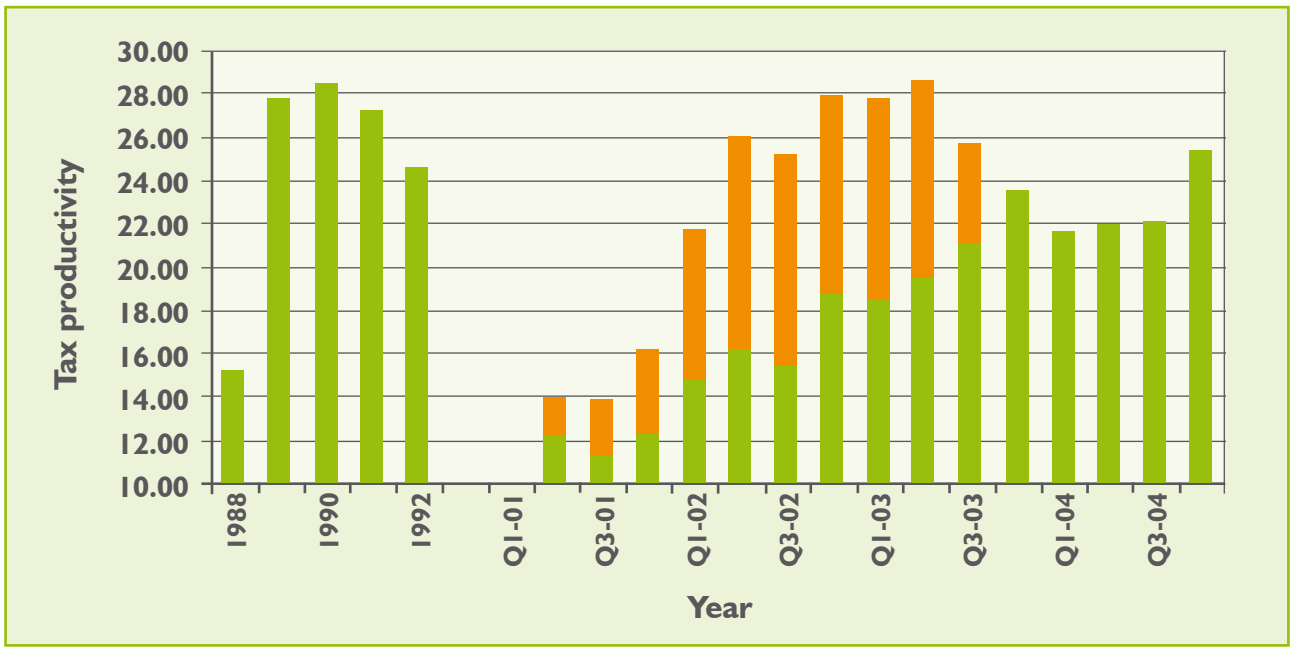
Argentina has a long history of FTTs, often implemented to raise revenue following economic or financial crises. It is a good example of the relationship between tax productivity and rates, as its lowest levels of productivity can be found during times where rates were particularly high (Baca-Campodonico *et al,* 2006). In 2009 bank debit taxes represented 11 percent of total tax revenue – the third largest source after income tax and VAT.

Figure 2.4 FTTs Productivity in Argentina



Source: Coehlo, 2009:6

Figure 2.5 Argentina: Ratio of Currency Outside Banks to Bank's liquid Assets (including provinces' quasi-money and LECOPs)



Source: Baca-Campodonico *et al*, 2006:21

2.4 Japan

Security transaction taxes were first introduced in 1953 as a substitute for capital gains tax. The tax rate was initially 0.15 percent for stock transactions, and it changed several times until it was abolished as part of "big-bang" liberalisation of the financial sector in 1999. Brokerage commission rates in Japan remained fixed until 1994 when rates for transactions over one billion yen were deregulated (Liu and Zhu, 2009). As of March 1994, brokerages charged clients fixed rates set by exchanges, which varied according to the size of the transaction, starting at 1.15 percent for trades under 1 million yen and declining with trade size to 0.075 percent for trades exceeding 1 billion yen (Liu and Zhu, 2009). Deregulation was then extended to transactions over 50 million yen in 1998. The final phase of the deregulation came into effect in 1999 when commission rates became negotiable on all transactions.

Instruments affected and rates

Stocks (0.1-0.3 percent), Corporate bonds (0.08-0.16 percent).

Coverage and exemptions

The Japanese tax was at that time levied on both debt instruments (at a rate of three basis points)[4] and equity instruments (at a rate of 30 basis points). Prior to 1988, the tax rate on equity transactions was 55 basis points (Liu and Zhu, 2009).

Revenue

The tax was able to raise a substantial amount of revenue in the 1980s, at the peak of its stock bubble drawing 4.0 percent of federal tax revenue through this source (Baker, 2010), which accounted for approximately US$12 billion per year.

Evidence on impact and market stability

Liu and Zhu (2009) found that a reduction of the commission in the Japanese equity markets in 1999 was associated with a statistically and economically significant increase in price volatility, a finding invariant to model specification and choice of control variables. The trading volume in the calendar year 1999 (65.5 trillion yen), which covered only three months following the full deregulation of the market, was 3.74 times that for year 1998, while the TOPIX (a value-weighted stock price index covering the Tokyo Stock Exchange First Section) increased by only 58.42 percent, suggesting a net increase of 216 percent in trading volume in the period.

In Summary

Japan was able to raise significant revenue from its FTT, at one time as high as US$12 billion a year. However, following deregulation of markets in the late 1990s the tax was abolished leading to both an increase in volumes traded, but also an accompanying increase in price volatility.

2.5 Peru

In August 1989, Peru introduced a 1.0 percent tax on financial transactions called *Impuesto a los debitos bancarios y financieros,* as an emergency measure during a period of hyperinflation. Continued fiscal distress forced the government to increase the tax rate to 2.0 percent in 1990. Growing financial disintermediation led the government to lower the rate first to 1.0 percent in September 1990 and then to 0.75 percent in April 1991, and finally to 0.4 percent in January 1992. The tax was eliminated in 1992 and then reintroduced in 2003. Beginning January 2010, rates have decreased to 0.05 percent and the tax was made permanent. Empirical data on impact with this specific rate is not yet available.

Instruments affected and rates

Stocks (0.08 percent + VAT), Corporate bonds (0.08 percent + VAT), debits and credits (0.1 percent).

Coverage and exemptions

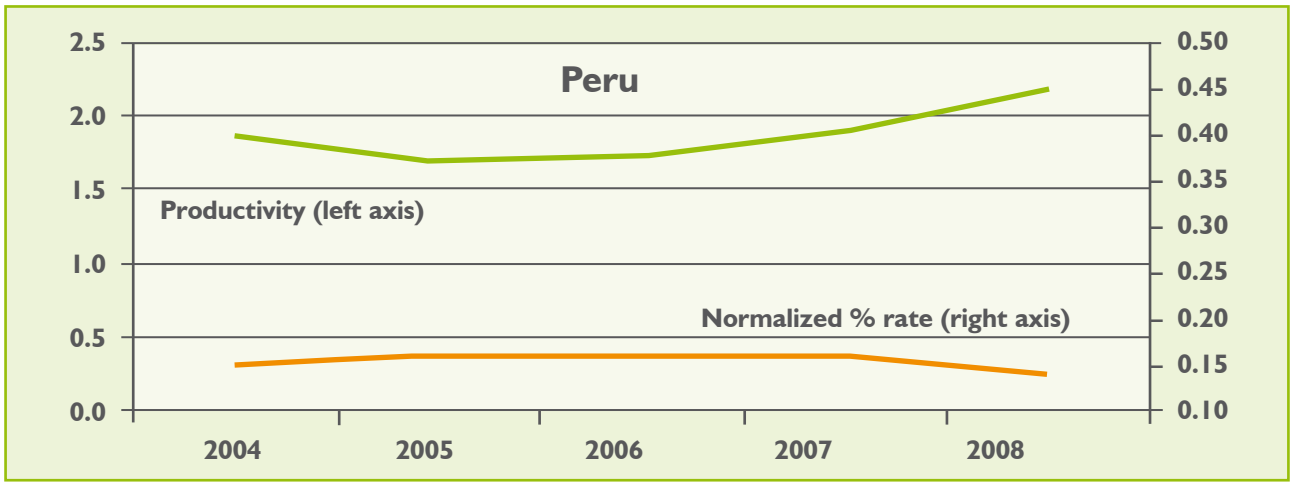
Taxes are levied on debits from bank accounts as well as on stocks and corporate bonds. In terms of bank debits, the list of exemptions is extensive, including savings accounts, accounts of housing financing funds, government accounts, accounts of official customs agents and universities and other schools, transfers between same-name accounts, mining and industrial enterprises that signed agreements of tax payment stability, severance payments and the debit of the tax itself.

Revenue

Financial transaction taxes in Peru have contributed significantly to tax revenue in recent years. According to Coehlo (2009:4), revenue from these types of taxes generally were equivalent to 1.95 percent of tax revenue or 0.91 percent of GDP and productivity has remained stable as illustrated by Figure 2.6. The rate of bank debit taxes however has declined over the years as seen in table 2.5.

4. A basis point (bp) is one hundreth of 1 percent (0.01 percent).

Figure 2.6 FTTs Productivity in Peru



Source: Coehlo, 2009:6

Table 2.5 Gross Revenue from Peru's Bank Debt Taxes

Year	Tax Rate	Gross Revenue		Productivity
		In percent of GDP	In percent of tax revenue	
1990	1.41*	0.59	6.4	Na
1991	0.81*	0.46	5.0	Na
2004	0.10	0.16	1.61	Na

Source: Coelho *et al*, 2001; Ebril and Summers, 2001; and IMF estimates, Suescun, 2004.

Collection method

Taxes have been collected by electronic means through banks at minimal cost on behalf of the government.

Evidence on impact

There is no empirical evidence on the specific impact of security transaction taxes. It has been claimed, however, that the number of cheques cleared by the Central Bank and their average value fell substantially and the ratio of cash outside banks to bank's liquid assets increased from 45 percent in early 1990 to 64 percent in 1992 (Baca-Campodonico, 2006:26). A 1992 analysis by IMF staff concluded that both the real revenues of the tax and the real level of current account deposits were declining. According to Spratt (2006), when a 0.1 percent FTT was introduced *"with the aim of raising finance for the education sector"*, international financial institutions such as the IMF predicted severe negative consequences for the Peruvian economy affecting availability of credit, thereby restraining growth. In the event, far from reducing bank deposits the period following the introduction saw *"both bank deposits and access to credit increase steadily."*

Evidence on avoidance

The government stated that the tax was inhibiting financial intermediation and fostering the informal economy. Among the practices induced by the tax, the IMF study in 1992 noted the clearance of transactions between enterprises directly without debiting bank current accounts and a more frequent endorsement of cheques. Evasion was also facilitated by the exemption of savings and housing lenders' associations from the tax. In response, these associations created instruments that substituted for the cheques of a regular banking system. In 2008, Peru passed legislation strengthening the quality of bank information provided by the banks regarding financial transactions liable to the FTT.

In summary

Peru has successfully implemented a substantial revenue raising FTT and through later adjustments in regulation, such as improving the quality of information provided by banks, it was able to maintain productivity. It is often cited that FTTs can be implemented cheaply and easily by taking advantage of existing mechanisms (Grabel, 2005) and Peru is a good example of this.

2.6 China

China introduced Security Transaction Taxes in 1990 but eliminated taxes on bonds in 2001. The rates of FTTs have varied over the years; there have been 14 adjustments since 1991, among which five were increases in the rate and nine were reductions.[5]

In March 2010, the chief adviser to the Chinese Banking Regulatory Commission, Andrew Sheng, proposed a levy on foreign exchange transactions in order to identify speculators in the currency market. This tax has not been implemented as yet.

Instruments affected and rates

Stocks (0.5-0.8 percent), Corporate bonds (0.10 percent).

Coverage and exemptions

The tax was introduced on the Shenzhen A-shares market at a rate of 0.6 percent of trading value in 1990. The Shanghai market, to which higher rates apply, began to charge the tax at 0.3 percent of trading value on both the purchase and sale of A-shares in 1991.

Evidence on impact and market stability

Baltagi *et al* (2006) found that when the tax rate increased in 1997 from 0.3 to 0.5 percent the Chinese stock market decreased its trading volume by one third and volatility significantly increased. As a result, the total tax revenue was smaller than otherwise expected. Su (2009) found that, on average, a 2.2 percent increase in the securities transaction tax rate was associated with about 28 percent drop in trading volume, while a 1.7 percent reduction in the rate was associated with about an 89 percent increase in trading volume in Chinese A-shares market. Both the increases and reductions in the rate resulted in a significant increase in market volatility.

In summary

The case of China illustrates the importance of setting the correct tax rate. Whilst China's FTT still exists today and generates the government revenue (indeed, as stated, the chief adviser to the Chinese Banking Regulatory Commission proposed extending the tax to cover currency) it was set relatively high and so the market impact was correspondingly higher. China's experience with market volatility characterises much of the existing literature which shows that FTTs both increase and decrease volatility in different situations. The actual effects depend on the manner in which the tax is implemented, as well as the rate at which it is set.

5. More specifically, three of the five increases were levied on the Shanghai A-shares market and the other two on the Shenzhen A-shares market. Four of the nine reductions were levied on the Shanghai A-shares market and the other five on the Shenzhen A-shares market.

2.7 United Kingdom

The UK has a long history of stamp duties on transactions, dating back to physical stamps on documents pertaining to the transfer of legal ownership. In the modern context the government applies a 0.5 percent tax to the transfer of shares in companies with a UK stock register. In 1986 the government introduced the stamp duty reserve tax (SDRT) at the same rate as the stamp duty. This was designed to cover the beneficial ownership of stocks without notification to the Registrar. Since today the majority of share transactions take place in this way through the stock exchange, the SDRT has become an important source of revenue.

Instrument & rate

Shares (0.5 percent).

Coverage and exemptions

Stamp duty applies to transactions of ordinary shares and assets convertible to shares. Futures and options are not subject to taxation, but the trading of an option is treated as a purchase of shares and is therefore taxed at the exercise price. Transactions of fixed-income securities like the purchase of corporate and government bonds are not liable for taxation. There are a few exemptions, such as:

a) Registered charities;
b) Members of the London Stock Exchange which are registered as intermediaries - including all investment banks and algorithmic traders – when they trade in the securities for which they make a market; and
c) Member firms of the London International Futures and Options Exchange (LIFFE) when they trade to hedge equity options positions or meet delivery obligations following the exercise of equity options.

Revenue

Revenue from stamp duty has been significant and stable over many years. Revenue collected is a function of share prices, share quantity and

turnover and thus reflects the development of the stock market. Stamp duty revenue growth was much higher than that of other taxes in the stock market boom years from 1997 to 2001 and declined from 2002 to 2004 (Schulmeister *et al*, 2008:25). In the fiscal year 2005/06, revenue stood at approximately £3.4 billion, which accounts for 0.7 percent of total tax revenues.

Collection method

Historically, the tax collection mechanism worked well because of its self-enforcing nature: documents required a stamp to be legally binding, and so the parties were compelled to pay the tax to receive the stamp. Today, however, collection is carried out electronically so physical stamps are no longer used. The costs of collection are low: only 0.21 pence per pound collected. In contrast, income tax costs 1.24 pence and corporation tax 0.76 pence per pound collected (HMRC, 2009).

Evidence on impact and market stability

The tax base remains large enough for the UK government to raise about £3 billion pounds a year from a 0.5 percent STT on equity transactions. According to a report by the Tax Justice Network, Christian Aid and others, the stamp duty *"does not appear to have any material impact on trading on the London Stock Exchange (LSE)."* On that exchange as a whole a comparison of 2009, 2008 and 2007 (Table 8) shows that *"trading is not being prevented by tax charged in that case, albeit the size of the non-order book market suggests that derivative deals are high and rising as a proportion."* In fact, the London Stock Exchange continues to be the world's second largest exchange and registers a higher turnover than the New York Stock Exchange, which does not levy a stamp duty (Kapoor, 2009:2).

Saporta and Kan (1997), on the other hand, examine the response of the equity market to announcements of changes in stamp duty rates and compare the prices of two assets, which are similar in all respects apart from their treatment for stamp duty purposes. They find that stamp duty has no effect on volatility but announcements of changes in the rate of the stamp duty have been followed by significant changes in the UK equity index (Saporta and Kan, 1997). In particular, on the day stamp duty in the UK was increased from 1 to 2 percent in 1974, the stock market index declined by 3.3 percent (Saporta and Kan, 1997). The tax was lowered first to 1 percent in 1984 and then to its current rate of 0.5 percent in 1986.

Evidence on avoidance

In contrast to some other financial transaction taxes the stamp duty cannot be avoided by trading overseas as it does not by itself remove the need to make a transfer of ownership legally binding, and hence does not shrink the tax base for the UK securities transaction tax.

Tax avoidance has also been restricted through the introduction of a special higher tax rate in 1986. This provides a strong disincentive for agents not to use methods such as long-term leases that may otherwise have avoided concluding the transfer of ownership and so incur the stamp duty. In the case of securities transfers, a legislative response has been to impose a higher rate of tax on transfers into a system, which allows subsequent transfers to be made without tax (Coelho *et al*, 2001). To reduce their tax liability, investors in UK equities must trade in closely related but not identical securities, or must reduce their volume of trading.

In summary

The UK stamp duty on shares raises stable and substantial revenue for the Exchequer without compromising the vitality of the London Stock Exchange. It is a good example of the low cost of implementing FTTs and the relative ease of enforcement.

Table 2.6 Trading volume in the London Stock Exchange, 2007-2009

	2009 Value traded £m	2008 Value traded £m	2007 Value traded £m
Equity (order book)	1,168,917.2	2,082,695.5	2,157,846.1
Equities (Non order book)	1,172,939.1	1,420,773.6	1,983,975.5
Debt securities (incl Gilts)	8,838,933.7	7,222,645.2	3,561,880.3
Total trading	**11,180,790.0**	**10,726,114.3**	**7,703,701.9**

Source: Task Force, Christian Aid, TJN, TUC and Tax Research UK (2010)

2.8 Sweden

Sweden's FTT serves as an interesting case study, since on many levels it was badly designed and the effects were damaging. It therefore provides some useful insights into how not to implement FTTs.

In 1984 Sweden introduced a tax of 0.5 percent on the purchase and sale of equities, adding up to 1 percent per round trip. In addition, exercise of an option was treated as a transaction in the underlying stock and was subject to an additional 1 percent round-trip charge (Habermeier and Kirilenko, 2003). From an already high level, tax rates were doubled and coverage was broadened in 1986-87 following large losses in interest futures and options (the City of Stockholm lost SEK 450 million). The tax was extended to transactions in fixed-income securities, including government debt and the corresponding derivatives in 1989. The maximum rate for fixed-income instruments was then set at 0.15 percent of the underlying notional or cash amount. Unlike many other FTTs the tax was also designed to be "yield-neutral", with longer maturities instruments being taxed at progressively higher rates. By 1991 all variations of the tax had been abolished.

Instruments affected and rates

Stocks and derivatives (1 percent).

Coverage and exemptions

The tax was levied directly on registered Swedish brokerage services. Such services (plus those of a registered Swedish exchange bank) were required for local stock transactions of meaningful size between domestic residents as well as those between domestic and foreign residents. Trades between two foreign principals were taxed only if they involved a security registered in Sweden. The tax applied to fixed-income securities, including government debt and associated derivatives, such as interest-rate futures and options. The rates on those instruments varied but were considerably lower than those on equity, reaching a maximum of only fifteen basis points of the underlying notional or cash amounts.

Revenue

Revenue performance of the tax was disappointing. According to the Finance Ministry of Sweden, the government collected SEK 820 million in 1984, SEK 1.17 billion in 1985, and SEK 2.63 billion in 1986. This accounted for 0.21, 0.27 and 0.53 percent of the total tax revenue for the corresponding years. After doubling the tax rates the government was able to collect SEK 3.74 billion in 1987 and SEK 4.01 billion in 1988. This accounted for 0.66 percent of total revenue. The major reason for the budgetary failure of the tax was avoidance, as unlike the UK

Table 2.7 Swedish Transaction Tax Revenues and Trading Migration

Year	Revenues of Turnover Tax on securities		Tax Rate – On equity traded, per round-trip (%)	Annual Swedish trading volume – Executed in London (%)	Trading of Swedish stocks inside Sweden (%)	Trading of Swedish unrestricted shares inside Sweden (%)
	% of GDP	% of tax revenue			Average of 19 large Swedish companies	
1984	0.10	0.21	1	NA	NA	NA
1985	0.13	0.27	1	NA	NA	NA
1986	0.26	0.53	1-2	NA	NA	NA
1987	0.35	0.66	2	30	NA	NA
1988	0.34	0.66	2	48	61	47
1989	0.45	0.85	2	51	57	42
1990	0.43	0.81	2	52	56	42
1991	0.25	0.50	1	NA	52	40
1992	0.02	0.04	0	NA	56	50

Source: Schulmeister *et al* (2008:22)

stamp duty, the tax did not apply to Swedish citizens or Swedish assets per se but to transactions undertaken in Sweden. Consequently, there was a strong incentive for Swedish nationals to move their trading offshore (see below). This was a fundamental flaw in the design of the tax. In addition to this, secondary effects on other taxes, e.g. capital gains tax, arising from the introduction of the securities transaction tax had a negative impact on public revenue (Schulmeister *et al*, 2008:21).

Evidence on impact and market stability

Umlauf (1993) studied equity returns in Sweden during 1980-87, before and during the imposition of transaction taxes on brokerage service providers. He found that volatility did not decline in response to the introduction of taxes. In terms of trading volume, Umlauf (1993) reported that after Sweden increased its transaction tax from 1 to 2 percent in 1986, 60 percent of the volume of the 11 most actively traded Swedish stocks migrated to London. The migrated volume represented over 30 percent of all trading volume in Swedish equities. By 1990, that share increased to around 50 percent. According to Campbell and Froot (1995), only 27 percent of the trading volume in Ericsson, the most actively traded Swedish stock, took place in Stockholm in 1988.

In terms of securities' prices, Umlauf (1993) reported that the Swedish All-Equity Index fell by 2.2 percent on the day a 1 percent transaction tax was introduced and again by 0.8 percent on the day it was increased to 2 percent. Campell and Froot (1995) estimate that during the first week of the tax, bond trading volume dropped by about 85 percent from its average during the summer of 1987 and trading in fixed-income derivatives essentially disappeared (Habermeier and Kirilenko, 2003).

Evidence on avoidance

Tax design problems resulted in widespread avoidance. Foreign investors avoided the tax by placing their orders with brokers in London or New York. Domestic investors avoided it by first establishing off-shore accounts and using foreign brokers (Habermeier and Kirilenko, 2003). As noted above, a large amount of migration took place.

In Summary

Sweden's short-lived experience with an FTT provides some important lessons on how not to implement FTTs. The tax went through many changes of rate but the basic structure remained the same. The underlying design flaw was that the tax did not apply to Swedish citizens or Swedish assets per se but to transactions undertaken in Sweden. Consequently a significant amount of trading in Swedish stocks migrated overseas causing sharp decreases in market size and revenue collection. The major difference between the Swedish case and the very successful UK FTT was that the Swedish tax was a domestic tax on international capital whereas the UK tax is an internationally applied tax on domestically registered companies.

2.9 Other experiences around the world

United States

From 1914 to 1966, the US had a federal tax on stock sales of 0.1 per cent at issuance and 0.04 per cent on transfers. Currently, although not often mentioned in the literature, a security transaction tax applies to transactions in publicly traded shares and exchange traded futures and options. Known as the Section 31 fee, it was applied at 1/300 of 1 percent, i.e. 0.0033 percent, to the face value of shares. This raised $1,090 million in 2000. In 2002, the tax was reduced to 1/883 of 1 percent, i.e. 0.0012 percent, of the value of the transaction in securities. The fee is collected by the Self-Regulatory Organisations – namely the New York Stock Exchange and National Association of Securities Dealers – and is used to cover the cost of the regulator: the Securities and Exchange Commission. The public trading of futures and options is also taxed on behalf of customers; this tax was lowered in 2002 to $0.10 on round-trip trades in futures and $0.05 in options.

In 1990, the US government reviewed a proposal during the budget negotiations for a broad-based 0.5 percent tax on transactions in stocks, bonds and exchange traded derivatives. In 1993, the Clinton administration proposed a fixed 14 cent charge on transactions in futures contracts and options on futures, neither of which were implemented (Kapoor, 2004).

India

India introduced security transaction taxes on equities, futures and options in 2004. These taxes were applicable at different rates depending upon the security (whether equity or derivative) and the transaction (whether buy or sell). Despite market

Table 2.8 Summary of the India's STT rates:[6]

Product	Transaction	STT rate	Charged on
Equity-Delivery	Purchase	0.125%	Turnover
	Sell	0.125%	Turnover
Equity-Intraday	Purchase	–	–
	Sell	0.025%	Turnover
Future	Purchase	–	–
	Sell	0.017%	Turnover
Option	Purchase	0.125%	Settlement price, on exercise
	Sell	0.017%	Premium

players' and analysts' predictions of the negative impact on the financial market, on the first day of the tax's introduction, the Sensex (India's most popular exchange) increased by 91.93 points (Singh, 2004). In addition to this, India also introduced bank debit taxes for revenue collection purposes in 2004. The levy was collected electronically with the aim of tracking unaccounted money and tracing its source and destination.

Originally set at higher rates, under pressure from a powerful lobby of brokers, speculators, arbitrageurs and 'noise traders', the Finance Minister diluted several important provisions of the securities transaction tax regime not long after implementation. This prompted renowned Indian economist, Kavaljit Singh, to comment: *"One of the biggest losers of the proposed amendments would be the government itself, as there would be a revenue loss of at least 25,000 million Rupees. No one knows how the government would fill this revenue loss."*

Chile

Chile also provides an interesting example because its stamp duty tax dates from 1974 and *"it is not part of the 'wave' of taxes on financial transactions levied by several developing countries for revenue collection purposes in the 1990s"* (Escobar, 2009). However, during the 1990s Chile extended the stamp duty into a multi-faceted financial policy regime. Its main objectives were regulatory: *"These were to balance the challenges and opportunities of global financial integration, to stabilize and lengthen the maturity structure of capital inflows, to mitigate the effect of large volumes of inflows on the currency and exports, to protect the economy from the instability associated with speculative excess and the sudden withdrawal of external finance, and to enhance the autonomy of monetary policy."* (Grabel, 2005). The approach became known as the 'Chilean model' and Colombia followed suit with a similar, albeit slightly more complex, version.[7] This approach was borne from a similar experience of policymakers in both countries in the preceding two decades with problems of severe currency and banking instability, financial crises, high levels of external debt and capital flight, and low levels of investor confidence.

Although less studied empirically, it is interesting to note that a 'by-product' of this approach was to generate significant amounts of revenue. As Grabel says: *"Gallego et al. (1999) is the only study that provides fairly detailed information on the revenues that stemmed from financial controls in Chile. They report that between September 1992 and September 1996, the 'Unremunerated Reserve Requirement' (including the up-front payment thereof) in Chile raised sums ranging from US $1,500 million to $2,000 million annually. They report that the largest revenue harvest associated with these same policy instruments occurred in 1997 when these measures raised US $2,237 million, an amount equal to 2.9% of Chile's 1997 GDP."* Although some other estimates are lower it is clear that significant levels of revenue were raised.

6. http://www.smartmoneyindia.co.cc/2009/01/all-about-securities-transaction-tax.html
7. Malaysia also introduced capital controls in 1998 during the South East Asian crisis, to help protect its currency from the kind of speculative attack suffered by Thailand and Indonesia. In a break with their normal free market approach, the Malaysian government limited out-flows of capital. Although a different approach to Chile (who limited in-flows of capital) it was also hailed as a success story (Sharma, 2003)

Colombia

Colombia, after implementing a similar FTT to Chile, later went on in 1998 to introduce a 0.2 percent tax on financial transactions, called *Contribucion sobre transacciones financieras,* as a temporary measure and earmarked its revenue to finance the bailout of mortgage institutions. The tax, which was intended to expire in 1999, was extended until the end of 2000, but the revenue was no longer earmarked. In 2001 the tax became permanent under the name *Gravamen a los movimientos financieros* and in 2004 its rate was increased to 0.4 percent. It was levied on all withdrawals from savings and current accounts, credit card transactions, loan disbursements, stocks and bonds. In fiscal year 2002, this tax accounted for 5.4 percent of total tax revenue and in the year 2004, revenue collected was almost 0.9 percent of GDP. However, bank debit productivity has declined over time due to the increase in the tax rate and growing tax avoidance. The increase of the tax rate to 0.30 percent in 2001 contributed to a further decrease in productivity. This trend has continued with the increase of the tax rate to 0.40 percent in 2004 (Baca-Campodonico *et al*, 2006:23).

This example highlights two important issues: firstly the ability of governments to earmark funds for certain causes. Many cite the potential here for governments to raise revenue domestically and protect key public services such as healthcare. It also shows that active management may be necessary as time goes on to ensure productivity remains high.

France

France also had a regulatory tax which applied differential rates to security transaction taxes until they were abolished in 2008. 0.3 percent was levied on transactions up to €153,000 and 0.15 percent on values exceeding €153,000 (with a maximum of €610 per transaction). The tax was payable by both sellers and buyers and certain shares and financial intermediaries were exempted from this tax, including SMEs and the new stock exchange market. A study by Hau (2006), however, found a positive association between transaction costs and volatility in the French stock market and concluded that security transaction taxes in the country increased asset return volatility. France passed indicative legislation in 2001 for a Currency Transaction Tax (CTT), although since it uses the euro, implementation would require agreement by all Eurozone countries.

Belgium, which currently levies 0.17 percent on stocks and 0.07 percent on bonds, has also made steps towards a CTT with a bill passed in 2004.

List of FTTs around the world

The table on the following page provides a useful summary of FTTs implemented by 38 countries worldwide.

Table 2.9 Security Transaction Taxes Around the World

Country	Stocks	Corporate Bonds	Govt. Bonds	Futures	Detail
Argentina	0.60%	0.60%	0.60%	0.60%	Tax of 0.6% on all financial transactions approved by legislature March 2000
Australia	0.30%	0.15%	–	–	Reduced twice in 1990s: currently 0.15% each for buyer and seller
Austria	0.15%	0.15%			Present
Belgium	0.17%				Present
Brazil	0.3% [0.38%]	0.3% [0.38%]	0.3% [0.38%]	–	Tax on FX transactions reduced from 2% to 0.5% in 1999. Tax on stocks increased and on bonds reduced 1999
Chile	18% VAT on trade costs	18% VAT on trade costs	–	–	Present
China	0.5% or 0.8%	[0.1%]	0	–	Tax on bonds eliminated 2001. Higher rate on stock exchanges applies to Shanghai.
Colombia	1.5%	1.5%	1.5%	–	Introduced 2000
Denmark	[0.5%]	[0.5%]	–	–	Reduced in 1995, 1998. Abolished 1999
Ecuador	[0.1%]	[1.0%]	–	–	Tax on stocks introduced 1999, abolished 2001. Tax on bonds introduced 1999
Finland	1.6%	–	–	–	Introduced 1997, applies only to trades on HEX electronic exchange
France	0.15%	See note		–	Present
Germany	[0.5%]	0.4%	0.2%	–	Removed 1991
Greece	0.6%	0.6%	–	–	Imposed 1998, doubled 1999
Guatemala	3%	3%	See note	–	Present
Hong Kong	0.3% + $5 stamp fee	[0.1%]	[0.1%]	–	Tax on stocks reduced from 0.6% in 1993. Tax on bonds eliminated 1999
India	0.5%	0.5%	–	–	Present
Indonesia	0.14% + 10% VAT on commissions	0.03%	0.03%	–	Introduced 1995
Ireland	1.0%	–	–	–	Present
Italy	[1.12%]	–	–	–	Stamp duties eliminated 1998
Japan	[0.1%], [0.3%]	[0.08%], [0.16%]	–	–	Removed 1999
Malaysia	0.5%	0.5%	0.015% [0.03%]	0.0005%	Present
Morocco	0.14% + 7% VAT on trade costs	7% VAT on trade costs	7% VAT on trade costs	–	Present
Netherlands	[0.12%]	[0.12%]	0	–	1970-1990
Pakistan	0.15%	0.15%	–		Present
Panama	–	–	–	–	Duties eliminated 2000
Peru	[0.1%], 0.08% + 18% VAT on trade costs	[0.1%], 0.08% + 18% VAT on trade costs	[0.1%], 0.08%	–	Financial transaction tax implemented 2003, reduced to 0.08% 2005. VAT Present
Philippines	[0.5%] + 10% VAT on trade costs	–	–	–	VAT present
Portugal	[0.08%]	[0.04%]	[0.008%]	–	Removed 1996
Russia	0.8% on secondary offerings + 20% VAT on trade costs			–	Present
Singapore	0.05% + 3% VAT on trade costs	–	–	–	Reduced 1994, eliminated 1998. VAT present
South Korea	0.3% [0.45%]	0.3% [0.45%]	–	–	Reduced 1996
Sweden	[1%]	–	–	–	Removed 1991
Switzerland	0.15%	0.15%	0.15%	–	Present 0.3% on foreign securities, 1% new issues
Taiwan	0.3% [0.6%]	0.1%	–	0.05%	Reduced 1993
UK	0.5%	–	–	–	Present
Venezuela	0.5% [1%]	–	–	–	Reduced May 2000
Zimbabwe	0.45% VAT on trade costs	–	–	–	Present

Source: Pollin (2003)

Note: Sources ambiguous as to whether tax applies to bonds in France and government bonds in Guatemala and does not include New Zealand or US Securities and Exchange Commission tax.

3. Potential

3.1 Financial transactions not yet taxed

Feasibility of taxing the wholesale market in foreign exchange (FX)

The question of taxing the wholesale market in foreign exchange has been studied for almost four decades (but more intensively over the last ten years) as a possible provider of new development finance. Initially the idea of taxing cross-border transactions was viewed as too technically complicated. However, the advent of electronic communication and automation, the introduction of Real Time Gross Settlement (RTGS), the almost universal use of SWIFT (Society for Worldwide Interbank Financial Telecommunications) messaging and the extensive centralisation of the FX market with the creation of the Continuous Linked Settlement (CLS) Bank in 2002, are widely recognised as providing a comprehensive set of solutions to technical issues.

Revenue

The trade in FX is the largest market in the world valued at $4,000 billion a day (ie $4 trillion a day which equates, with 250 trading days per annum, to $1,000 trillion a year), having grown from $3,200 billion a day in 2007.[8] Econometric modelling for the UN University by Professor Rodney Schmidt of the North-South Institute, indicates that at a rate of 0.005 percent applied to the four most traded currencies (dollar, pound, euro and yen) a minimum revenue of $33 billion a year would be generated. However, even modestly traded currencies may have the potential to raise hundreds of millions of dollars[9] a year of additional income. Even countries, whose currencies are not yet settled through CLS Bank, can capture this revenue through their domestic High Value Settlement Systems.

Proof of concept

The CLS bank is owned by the foreign exchange community, principally the world's largest banks, and was set up by them to eliminate settlement risk. 17 major currencies are traded: the Mexican Peso, Canadian Dollar, Pound Sterling, Israeli Shekel, Japanese Yen, Korean Won, Danish Krone, Euro, US Dollar, Hong Kong Dollar, Singapore Dollar, Norwegian Krone, Australian Dollar, New Zealand Dollar, South African Rand, Swedish Krona and Swiss Franc. CLS Bank now accounts for 75 percent of the volume of trades and 95 percent of the value of the entire market. Interestingly, to pay their operating costs, CLS Bank apply their own FTT of 0.000022 percent, or 22 cents per $1,000,000 traded (Committee of Experts to the Taskforce on International Financial Transactions and Development, 2010). This example provides an important proof of concept that a Currency Transaction Tax can be successfully implemented, and has the potential to raise significant revenue.

Political feasibility

It is arguable that since technical issues are no longer the real block, it is inevitable that at some stage this untapped source of revenue will be harnessed. Particularly, since as we demonstrate in this paper, there is already a widespread implementation of FTTs across the globe. In the context of the taxation of stocks, bonds and derivatives in various countries, the continued exclusion of foreign exchange can be seen as an anomaly.

Importantly, the current economic downturn not only provides the imperative to access new funds but due to the finance sector's culpability for the crisis, its relationship to governments has been adversely affected, despite its continuing and considerable lobbying power. This is allowing greater policy space for governments both to re-regulate the sector and raise greater revenue from it. Indications of this include the IMF report of June 2010 prepared for the Toronto G20 Summit: *A Fair And Substantial Contribution by the Financial Sector,*[10] which proposes taxation of bank balance sheets (Financial Stability Contribution) and excessive profits and remunerations (Financial Activities Tax). Although, the report itself doesn't recommend FTTs, it says that they *"should not be dismissed on the grounds of administrative practicality."*

The most advanced work on the potential to use financial sector taxes for development has been carried out under the auspices of the Leading Group on Innovative Financing for Development,

8. Annual daily turnover: $3.2 trillion per day. Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity 2007 – Preliminary global results, Bank for International Settlements, September, 2007. www.bis.org/publ/rpfx07.htm
9. See Appendix 1, A Sterling Solution , Spratt, September 2006 – http://www.stampoutpoverty.org/?lid=9889
10. http://www.imf.org/external/np/g20/pdf/062710b.pdf

a grouping of 55 countries, who set up a 12-country[11] taskforce in October 2009, that commissioned some of the world's leading development economists to investigate and report back. In June 2010, this Committee of Experts produced the report: *Globalizing Solidarity: The Case for Financial Levies*,[12] which specifically recommends within the family of FTTs, the taxation of transactions in the wholesale foreign exchange market as the most appropriate source of long term, sustainable funding for global public goods.

3.2 Security Transaction Tax revenue projections for developing countries

Undoubtedly, mature markets in the most developed countries provide the most fertile ground for raising revenue to fund development projects. However, as our case studies show some middle-income countries already have effective FTTs and there is scope to expand this to others. Table 3.1, for example, reproduces Grabel's estimates of the potential income that could be raised from a range of countries (Grabel, 2005).

Estimated aggregate revenues for all developing countries range from about US $2.9 billion to US $14.5 billion. However, the projections as presented should be treated with caution. In her calculations she assumes that a 0.1- 0.5 percent tax will yield no reduction in transaction volume. This is undermined by other studies, which have shown a significant impact from rates in this range (See for example McCulloch, and Pacillo, 2010). In fact, volume reductions in developing countries are likely to be larger than in developed countries because the use of computerised and automated systems for financial transfers are far less, the informal economy is larger and scope for evasion greater.

Whilst this calls into question Grabel's aggregate revenue projections, which may overstate potential revenues, it does show that for some middle-income countries FTTs could raise considerable amounts relative to the total tax base of those countries (Grabel has highlighted in bold the ones where she sees the most potential). In further research it would be useful to revisit these calculations taking account of volatility.

Grabel makes another important point in her report. For countries with very low GDPs, particularly in Sub-Saharan Africa, the volume of trading is too low to consider implementing FTTs. In the first instance it would be ineffective as a revenue-raising tool. More importantly perhaps, any reduction in volume would be problematic from an economic development perspective. The evidence would suggest that financial deepening in developing countries is beneficial, but becomes less so and turns negative once the financial sector reaches a certain size vis-a-vis the real economy. [Turner, 2010) As Grabel puts it: *"As a consequence, STTs of any magnitude will not raise significant amounts of revenue there. Indeed, for many countries, the revenues promised even by the higher tax rate can hardly be expected to offset the likely administrative and collection costs of the tax. For these countries, other new forms of revenue are necessary."*

Therefore as a starting point, a country needs to achieve a certain level of financial sector development, sufficient to justify the tax in the first place.

11. Austria, Belgium, Brazil, Chile, France, Germany, Japan, Korea, Norway, Senegal, Spain, UK
12. *Globalizing Solidarity: The Case for Financial Levies,* available at: http://www.leadinggroup.org/IMG/pdf_Financement_innovants_web_def.pdf

Table 3.1 Security Transaction Taxes - Revenue projections for developing countries

Estimated by Grabel, 2005.

	Value traded (US$ millions)				Tax revenues (US$ thousands) 0.10% tax (no vol. red)				Tax revenues (US$ thousands) 0.50% tax No vol. red.	0.50% tax 25% vol. red.	0.50% tax 50% vol. red.
Country	**1995**	**1998**	**2001**	**2003**	**1995**	**1998**	**2001**	**2003**	**2003**	**2003**	**2003**
Argentina	4594	15811	4180	4913	4594	15811	4180	4913	24565	18423.75	12282.5
Bahrain		577	196	273	577	196	273		1365	1023.75	682.5
Bangladesh	158	789	741	327	158	789	741	327	1635	1226.25	817.5
Barbados	3	34	10	75	3	34	10	75	375	281.25	187.5
Bolivia	1	6	1	2	1	6	1	2	10	7.5	5
Botswana	38	70	65	87	38	70	65	87	435	326.25	217.5
Brazil	79186	146683	65090	60435	79186	146683	65090	60435	302175	226631.25	151087.5
Bulgaria	4	12	70	197	4	12	70	197	985	738.75	492.5
Chile	11072	4417	4220	6544	11072	4417	4220	6544	32720	24540	16360
China	49774	284769	448928	476813	49774	284769	448928	476813	2384065	1788048.75	1192032.5
Colombia	1254	1525	355	405	1254	1525	355	405	2025	1518.75	1012.5
Costa Rica	16				16			0	0	0	0
Cote d'Ivoire	14	39	8	24	14	39	8	24	120	90	60
Croatia	47	103	117	237	47	103	117	237	1185	888.75	592.5
Czech Rep.	3630	4807	3349	8797	3630	4807	3349	8797	43985	32988.75	21992.5
Dominican Rep.								0	0	0	0
Ecuador	234	139	10	37	234	139	10	37	185	138.75	92.5
Egypt	677	5028	3897	3278	677	5028	3897	3278	16390	12292.5	8195
El Salvador		18	23	10		18	23	10	50	37.5	25
Estonia		922	220	564		922	220	564	2820	2115	1410
Fiji		4		2		4		2	10	7.5	5
Ghana	22	60	13	45	22	60	13	45	225	168.75	112.5
Guatemala	5	10	0		5	10	0	0	0	0	0
Honduras								0	0	0	0
Hungary	355	16042	4818	8300	355	16042	4818	8300	41500	31125	20750
India	21962	148239	249298	284802	21962	148239	249298	284802	1424010	1068007.5	712005
Indonesia	14403	10610	9667	14774	14403	10610	9667	14774	73870	55402.5	36935

Table 3.1 Security Transaction Taxes - Revenue projections for developing countries...*continued 1*

	Value traded (US$ millions)				Tax revenues (US$ thousands) 0.10% tax (no vol. red)				Tax revenues (US$ thousands) 0.50% tax No vol. red.	0.50% tax 25% vol. red.	0.50% tax 50% vol. red.
Country	**1995**	**1998**	**2001**	**2003**	**1995**	**1998**	**2001**	**2003**	**2003**	**2003**	**2003**
Iran	741	1389	4955	5291	741	1389	4955	5291	26455	19841.25	13227.5
Israel	9155	11264	29791	41558	9155	11264	29791	41558	207790	155842.5	103895
Jamaica	341	41	75	249	341	41	75	249	1245	933.75	622.5
Jordan	517	653	933	2607	517	653	933	2607	13035	9776.25	6517.5
Kazakhstan	26	320	414		26	320	414	2070	1552.5	1035	
Kenya	65	79	40	209	65	79	40	209	1045	783.75	522.5
Korea	185197	145572	703960	682706	185197	145572	703960	682706	3413530	2560147.5	1706765
Latvia		85	165	145		85	165	145	725	543.75	362.5
Lebanon	328	57	131		328	57	131	655	491.25	327.5	
Lithuania	37	221	220	198	37	221	220	198	990	742.5	495
Macedonia	87	2	22		87	2	22	110	82.5	55	
Malawi		10				10		0	0	0	0
Malaysia	76822	29889	20772	50135	76822	29889	20772	50135	250675	188006.25	125337.5
Malta	16	56	47	42	16	56	47	42	210	157.5	105
Mauritius	70	101	112	99	70	101	112	99	495	371.25	247.5
Mexico	34377	34164	40043	23489	34377	34164	40043	23489	117445	88083.75	58722.5
Mongolia	2	13		1	2	13		1	5	3.75	2.5
Moldova		81	22	35		81	22	35	175	131.25	87.5
Morocco	2426	1390	974	694	2426	1390	974	694	3470	2602.5	1735
Namibia	3	13	8	2	3	13	8	2	10	7.5	5
Nepal	18	4			18	4		0	0	0	0
Nigeria	14	160	496	858	14	160	496	858	4290	3217.5	2145
Oman	211	1943	442	1249	211	1943	442	1249	6245	4683.75	3122.5
Pakistan	3210	9038	12455	66598	3210	9038	12455	66598	332990	249742.5	166495
Panama	9	118	45	45	9	118	45	45	225	168.75	112.5
Paraguay	22	15			22	15		0	0	0	0
Peru	3935	2832	849	812	3935	2832	849	812	4060	3045	2030
Philippines	14727	10120	3148	2635	14727	10120	3148	2635	13175	9881.25	6587.5
Poland	2770	8918	7432	8498	2770	8918	7432	8498	42490	31867.5	21245

Table 3.1 Security Transaction Taxes - Revenue projections for developing countries...*continued 2*

	Value traded (US$ millions)				Tax revenues (US$ thousands) 0.10% tax (no vol. red)				Tax revenues (US$ thousands) 0.50% tax No vol. red.	0.50% tax 25% vol. red.	0.50% tax 50% vol. red.
Country	**1995**	**1998**	**2001**	**2003**	**1995**	**1998**	**2001**	**2003**	**2003**	**2003**	**2003**
Romania	1	596	256	442	1	596	256	442	2210	1657.5	1105
Russia	465	10495	22908	81011	465	10495	22908	81011	405055	303791.25	202527.5
Saudi Arabia	6194	13713	22224	159058	6194	13713	22224	159058	795290	596467.5	397645
Slovakia	832	1032	966	664	832	1032	966	664	3320	2490	1660
Slovenia	345	702	794	732	345	702	794	732	3660	2745	1830
South Africa	17048	58347	69676	102808	17048	58347	69676	102808	514040	385530	257020
Sri Lanka	221	281	153	769	221	281	153	769	3845	2883.75	1922.5
Swaziland		0	10			0	10	0	0	0	0
Taiwan	383099	1291524	544808	592012	383099	1291524	544808	592012	2960060	2220045	1480030
Tanzania		0	8			0	8	0	0	0	0
Thailand	57000	21618	35705	96573	57000	21618	35705	96573	482865	362148.75	241432.5
Trinidad & Tobago	137	177	174	404	137	177	174	404	2020	1515	1010
Tunisia	663	188	316	164	663	188	316	164	820	615	410
Turkey	51392	68459	77937	99611	51392	68459	77937	99611	498055	373541.25	249027.5
Ukraine		93	226	106		93	226	106	530	397.5	265
Uruguay	5	4	1	1	5	4	1	1	5	3.75	2.5
Uzbekistan				25				25	125	93.75	62.5
Venezuela	510	1532	394	147	510	1532	394	147	735	551.25	367.5
West Bank & Gaza		69	75	60		69	75	60	300	225	150
Yugoslavia		13	1			13	1	0	0	0	0
Zambia		3	53			3	53	0	0	0	0
Zimbabwe	150	186	1530	1345	150	186	1530	1345	6725	5043.75	3362.5
Developing Market Total	**1040196**	**2368356**	**2400844**	**2896144**	**1040196**	**2368356**	**2400844**	***2896144***	***14480720***	**10860540**	**7240360**

Author's calculations; data taken from Standard and Poor's *Global Stock Markets Factbook 2004*. Top ten countries by trading volume, 2003, in bold face.

4. Conclusion

In this section we look at the common trends and best practices from the case studies presented above.

Revenue and Impact

FTTs are a significant source of revenue for both developed and developing countries with collections that oscillate around 1 percent of GDP, though in the case of Argentina this has risen as high as 11 percent.

In general terms the lower the rate and the simpler the design, the more revenue is collected. In particular, it seems that there is a strong relationship between coverage and tax productivity as exemplified by the fact that simpler taxes that levy only one-way transactions have fewer exemptions and thus less evasion and higher productivity.

It should also be noted that the size of a countries' financial sector must be taken into account when assessing the potential of an FTT to raise revenue. Below a certain threshold the administrative and enforcement costs may outweigh revenue collected. Grabel (2005) highlights that middle-income countries have the most to gain based on 2003 transactions she estimates, for example, that Korea stands to raise between $0.68 - $3.4 billion a year.

The market impact of FTTs varied enormously between countries. Sweden represents one extreme, where widespread migration caused a decimation of the stock and derivatives markets, on the other hand the UK, despite its 0.5 percent stamp duty on share transactions, has the world's second largest stock exchange and registers a higher turnover than the New York Stock Exchange. In the case of India, following much prediction that the financial markets would drop on the day of implementing its securities transaction tax in 2004, its most popular exchange – the Sensex – actually went up. Whilst market impact is clearly related to the rate, there are many other contributing factors that are set out below.

Implementation

A key advantage of FTTs is that their implementation does not require new administrative apparatus. They can be 'plumbed in' to existing mechanisms by which transactions are already settled. This makes implementation relatively simple and collection costs small, as evidenced by the Peru example and the stamp duty in the UK which costs only 0.21 pence per pound, in contrast to income tax (1.24 pence) and corporation tax (0.76 pence) per pound collected.

Revenue Raising or Regulation

As the case studies above demonstrate, the intention of introducing some FTTs is not to raise revenue but to have a regulatory effect. For best practice we can look to Taiwan, Chile and India's multi-tiered tax regimes that can reduce short-term speculative trading without affecting the functioning of their financial markets. This type of policy tool can control systemic risk by fine-tuning rates on different product markets when circumstances justify them without sacrificing general growth. Despite the overlap in designing best practice for revenue raising and regulatory FTTs, there are some intrinsic contradictions in trying to pursue both. The clearest one is related to tax rates, as low rates tend to maximise productivity and so revenue collection whilst regulatory taxes maximise market impacts through high rates which in turn reduce volume of trade, and therefore, potential revenue. Examples such as Sweden, where countries attempt to do both, can lead to neither goal being fully realised, though Chile provides an example where a secondary effect of a regulatory FTT was to raise significant amounts of revenue.

Evasion

Because FTTs are collected at the point of settlement and rely on existing market mechanisms evasion is more difficult than with other taxes such as income tax (Grabel 2005, Spratt 2006). Regarding FTTs there are two core concerns relating to evasion: one has to do with substitution (shifting away from taxed instruments to non-taxed ones) and the other with migration (shifting activities to untaxed locations). The British and Swedish examples give a marked illustration of how well designed taxes can simply negate both of these problems: Investors in Sweden could avoid the tax by a) moving transaction offshore at very low costs, and b) finding or creating close substitutes. The British stamp duty side steps these problems because it is not a tax on domestic consumption of trading services but a worldwide tax on the transfer of ownership of companies incorporated in the UK, independently of where the transaction takes place. In other words, since trading offshore does not remove the need to make a transfer of ownership legally binding, it does not shrink the tax base. Furthermore, the stamp duty built in higher tax rates upon leaving the regime to discourage transactions migrating to different instruments.

Exemptions

Most countries exempt certain financial transactions to protect important functions within the economy, for example a) those involving financial intermediaries based on the assumption that they play a crucial role in providing liquidity; b) government securities are not usually taxed so that the government's ability to raise capital is not affected; c) transactions outside national boundaries in many cases are not taxed due to enforcement problems (Schulmeister *et al*, 2008:17).

Stability

The stability of revenue collection is directly related to the political will to maintain these taxes. Over time productivity may decrease, or avoidance increase, which would require the need to adjust the regulatory and legislative framework. The need to raise revenue is often a response to economic and financial crises as in Colombia and Argentina for example. Therefore, tax rates have often varied considerably and revenue productivity has been consequently unstable. In both these cases productivity deteriorated over time indicating that the base of the tax had been receding. This decrease could potentially indicate increasing financial disintermediation or the development of tax avoidance and the need for further government intervention.

Vested Interest

The successful introduction and maintenance of FTTs also depends on the government's ability to resist vested interests. This is illustrated in cases like Brazil, India and Japan, where both high revenue generating and market stabilising taxes were removed or diluted as a consequence of the lobbying efforts of the finance industry.

Ring Fencing

As some of the cases presented above illustrate, financial transaction taxes have been successfully ring-fenced to finance either local development (Argentina) or particular social policies (Brazil's CPMF) and highlights the case that countries can raise their own revenue and hypothecate proceeds towards public spending.

Concluding Remarks

The case studies in this report draw on the empirical evidence available for a variety of FTTs that have been implemented in both developed and developing countries. By drawing on the lessons learnt from these experiences, both positive and negative, a key set of criteria have been established that underlie the successful implementation of FTTs. In 2005 Grabel estimated prospective aggregate revenues for FTTs in developing countries to be in the range of $2.9 billion - $14.5 billion. Whilst some caution ought to be exercised over these projections, particularly in regard to countries that do not have developed financial sectors, for some developing countries there is clearly potential to build on the success of FTTs. Revenue can be raised from their own financial sectors which can make a significant contribution both to safeguarding and extending public spending on, for instance, health and education.

5. References

Baca-Campodonico, J.; de Mello, L.; and A. Kirilenko (2006), The Rates and Revenue of Bank Transaction Taxes, *OECD Economics Department Working Papers 494*, Paris: OECD.

Baker, D.; Pollin, R.; McArthur, T. and M. Sherman (2009) The Potential Revenue from Financial Transaction Taxes, Center for Economic and Policy Research and Political Economic Research Institute, Issue brief, available at: http://www.peri.umass.edu/fileadmin/pdf/working_papers/working_papers_201-250/WP212.pdf

Baltagi, B., Li, D. and Q. Li (2006) Transaction Tax and Stock Market Behaviour: Evidence from an emerging market, *Empirical Economics,* Vol. 31:393-408.

Campbell, J. and K. Froot (1994) International Experiences with Securities Transaction Taxes, in Frankel, J. (ed) The Internationalization of Equity Markets, Chicago: University of Chicago Press.

Chou, R. and G. Wang (2005) Transaction Tax and Market Quality of the Taiwan Stock Index Futures, available at: http://www.ccfr.org.cn/cicf2006/cicf2006paper/20060113210949.pdf

Coelho, I.; Ebrill, L.; Summers, V. (2001) Bank Debit Taxes in Latin America: An analysis of recent trends, *IMF Working Paper Fiscal Affairs Department,* Washington, D.C.: IMF.

Coelho, I. (2009) Taxing Bank Transactions: The experience in Latin America and elsewhere, *III ITD Conference Beijing,* Washington, D.C.: Inter-American Development Bank.

Committee of Experts to the Taskforce on International Financial Transactions and Development (2010) *Globalizing Solidarity: The Case for Financial Levies.* Leading Group of Innovative Financing to Fund Development, available at: http://www.leadinggroup.org/article668.html

Darvas, Z. and J. Von Wiezsacker (2010) Financial Transaction Tax: Small is beautiful, *Bruegel Policy Contribution, Issue 2010/02,* available at: http://www.fecif.eu/downloads/FECIF458.pdf

Ernst and Young (2010) Tax Policy and Controversy Briefing: A quarterly review of global tax policy and controversy developments, available at: http://www.ey.com/Publication/vwLUAssets/TPC_Briefing_-_Feb2010/$FILE/TPC-Issue%203%20Feb2010.pdf

Escobar, R. (2009) Taxes in the Financial Sector: The Chilean Case, *Servicio de Impuestos Internos (SII):* Chile. Available at: www.itdweb.org/financialconference/.../12-Financial%20transactions%20Chile%20-%20English%20Version.ppt

Grabel, I. (2005) Taxation of International Private Capital Flows and Securities Transactions in Developing Countries: Do public finance considerations augment the macroeconomic dividends? *International Review of Applied Economics,* Vol.19 (4):477-497.

Habermeier, K. and A. Kirilenko (2001) Securities Transaction Taxes and Financial Markets, *IMF Working Paper 01/51,* Washington, D.C.: IMF.

Haq, Kaul, and Grunberg (1996) The Tobin Tax: Coping with Financial Volatility. New York: Oxford University Press.

Hau, H. (2002) The Role of Transaction Costs for Financial Volatility: Evidence from the Paris Bourse, Journal of the European Economic Association, MIT Press, vol. 4(4):862-890.
Available at: http://www.inquire-europe.org/project/finished%20projects/hau.pdf

Hillman, D.; Kapoor, S. and S. Spratt (2006) Taking the Next Step: Implementing a currency transaction development levy, *MPRA Paper No. 4054*, available at:
http://mpra.ub.uni-muenchen.de/4054/1/MPRA_paper_4054.pdf

Honohan, P. and S. Yoder (2010) Financial Transaction Tax: Panacea, threat or damp squib? *Policy Research Working Paper 5230,* Washington, D.C.: World Bank.

IMF (2010) *A Fair and Substantial Contribution by the Financial Sector: report for the G20,* available at http://www.imf.org/external/np/g20/pdf/062710b.pdf

Kapoor, S. (2004) *The Currency Transaction Tax: Enhancing financial stability and financing development.* The Tobin Tax Network

Kapoor, S. (2010) Financial Transaction Taxes: Necessary, feasible and desirable, Foundation for European Progressive Studies, Re-Define, available at: http://www.feps-europe.eu/fileadmin/downloads/political_economy/1003_FEPS_FTTpaper_SonyKapoor.pdf

Leading Group on Innovative Financing for Development (2010) *Globalizing Solidarity: The Case for Financial Levies,* Committee of Experts to the Taskforce on International Financial Transactions and Development, available at: http://www.leadinggroup.org/IMG/pdf_Financement_innovants_web_def.pdf

Liu, S. and Z. Zhu (2009) Transaction Costs and Price Volatility: New evidence from the Tokyo Stock Exchange, *Journal of Financial Services Review,* Vol. 36: 65-83.

McCulloch, N. and Pacillo, G. (2010) The Tobin Tax – A Review of the Evidence http://www.ids.ac.uk/index.cfm?objectid=2143EA47-E2EC-4BFC-274F990A4CE8601E

Pollin, R., Baker, D., Schaberg, M., Securities Transaction Taxes for U.S. Financial Markets, *Eastern Economic Journal,* Vol. 29, No.4: pp.527-558

Saporta, V. and K. Kan (1997) The Effects of Stamp Duty on the Level and Volatility of UK Equity Prices, *Bank of England Working Paper no. 71*. London: Bank of England.

Schmidt, R. (2007) *The Currency Transaction Tax: Rate and Revenue Estimates,* The North-South Institute, October 2007.

Schulmeister, S. Schratzenstaller, M. and O. Picek (2008) A General Financial Transaction Tax: Motives, Revenues, Feasibility and Effects, *Austrian Institute of Economics Research WIFO Monographs,* Vienna: WIFO.

Shome, P. (2009) Financial Transaction Taxes, International Tax Dialogue Global Conference, UK: HMRC.

Singh, K. (2004a) India Introduces Securities Transaction Tax, available at: http://madhyam.org.in/admin/tender/Equitable%20Equity.PDF

Singh, K. (2004b) Overturning Transaction Tax, available at: http://www.countercurrents.org/eco-singh050804.htm

Sharma, S (2003) The Malaysian Capital Control Regime of 1998: Implementation, Effectiveness and Lessons, *Asian Perspective* Vol. 27, No.1: pp.77-108

Spratt, S. (2006) *A Sterling Solution: Implementing a Stamp Duty on Sterling to Finance International Development,* Second Edition

Spratt, S. (2006) Implementing a Levy on Euro Transactions to Finance International Development, available at: http: www2.weed-online.org/uploads/euro_solution.pdf

Sue, A. Y (2009) The Impact of the Securities Transaction Tax on the Chinese Stock Market, *Working Paper Series Suffolk University,* Available at SSRN: http://ssrn.com/abstract=1437691

Suescun, R. (2004) Raising Revenue With Transaction Taxes in Latin America: Or it is better to tax with the devil you know? *World Bank Policy Research Working Paper 3279,* Washington, D.C.: World Bank.

TUAC (2010) Taxing Banks: A report submitted to the International Monetary Fund, available at: http://www.taxresearch.org.uk/Documents/IMFTaxingBanks.pdf

TUAC (2010b) The Parameters of a Financial Transaction Tax and the OECD Global Public Good Resource Gap, 2010-2020, available at: http://www.tuac.org/en/public/e-docs/00/00/06/7C/document_doc.phtml

Turner, A. (2010) What do banks do? Why do credit booms and busts occur and what can public policy do about it? *The Future of Finance: The LSE Report* available at http://www.futureoffinance.org.uk/

Umlauf, Steven R. (1993). "Transaction Taxes and the Behavior of the Swedish Stock Market," *Journal of Financial Economics,* 33, p. 227-240 http://ideas.repec.org/a/eee/jfinec/v33y1993i2p227-240.html

5.1 References in the press

Baker, Dean. "Making the Banks Pay." *The Guardian Unlimited,* January 18, 2010. http://www.guardian.co.uk/commentisfree/cifamerica/2010/jan/18/obama-financial-speculation-tax-bailouts

Baker, Dean. "Financial Transactions Taxes: Easy and Fun Money." *The Guardian Unlimited*. December 14, 2009. http://www.cepr.net/index.php/op-eds-&-columns/op-eds-&-columns/ftt-easy-fun-money/

Baker, Dean; Pollin, Robert; McArthur, Travis; and Sherman, Matt. "The Potential Revenue from Financial Transactions Taxes." *CEPR and PERI, Issue Brief.* December 2009. http://www.cepr.net/documents/publications/ftt-revenue-2009-12.pdf

Baker, Dean. "Financial Transactions Taxes Must Come Before a National Sales Tax." *The Guardian Unlimited.* November 9, 2009. http://www.cepr.net/index.php/op-eds-&-columns/op-eds-&-columns/ftt-before-vat/

Baker, Dean. "Financial Transactions Tax: The Perfect Gift for Wall Street." *The Guardian Unlimited.* April 27, 2009. http://www.cepr.net/index.php/op-eds-&-columns/op-eds-&-columns/financial-transactions-tax-the-perfect-gift-for-wall-street/

Baker, Dean. "A Financial Sector Small Enough to Drown in a Bathtub." *TPM Café*. December 8, 2008. http://www.cepr.net/index.php/op-eds-&-columns/op-eds-&-columns/a-financial-sector-small-enough-to-drown-in-a-bathtub/

Bennhold, Katrin. "At Davos, Sarkozy Calls for Global Finance Rules." *New York Times*. January 27, 2010. http://www.nytimes.com/2010/01/28/business/global/28davos.html

Benoit, Bertrand. "Steinbrück calls for global finance tax." *Financial Times*. September 12, 2009. http://www.ft.com/cms/s/0/f6db1262-9f34-11de-8013-00144feabdc0.html

Brazil Watch Publications. "With CSLL Tax Hike Lula Targets Banks to Finance Social Programs; Bankers Cry Foul, But Analysts Say Banks Will Still Realize Hefty Profits." January 20th, 2008. http://www.brazilwatch.com/news.php?news_id=110&PHPSESSID=b2673c2925598cac34f4e06a7071c6e6

Brown, Ellen. "More than one way to reclaim the power to create money." Open Letter to the AMI, August 28, 2009. http://webofdebt.wordpress.com/more-than-one-way-to-reclaim-the-power-to-create-money-an-open-letter-to-the-american-monetary-institute-august-28-2009/

Davis, Bob. "IMF Mulls a Global Bank Tax." *Wall Street Journal*. October 5, 2009. http://online.wsj.com/article/SB125450903842060037.html

Elliott, Larry. "IMF chief backs down on Tobin tax. IMF boss Dominique Strauss-Kahn shows interest in Tobin tax at CBI conference." *Guardian.co.uk*. November 23, 2009. http://www.guardian.co.uk/business/2009/nov/23/cbi-global-economy

Guha, Krishna. "Opening salvo on banks has yet to come." *Financial Times*. January 18, 2010. http://www.ft.com/cms/s/0/8302b178-047a-11df-8603-00144feabdc0.html

Herbert, Bob. "Where the Money Is." *New York Times*. January 13, 2009. http://www.nytimes.com/2009/01/13/opinion/13herbert.html

IMFSurvey Magazine: In the News. "IMF and Civil Society. IMF Launches Consultative Process on Financial Sector Tax." IMF Survey online. January 11, 2010. http://www.imf.org/external/pubs/ft/survey/so/2010/new011110a.htm

IMFSurvey Magazine: In the News. "G-20 ministerial meeting. IMF to Assess G-20 Progress on Recovery, Mulls Financial Levy." IMF Survey online. November 7, 2009 http://www.imf.org/external/pubs/ft/survey/so/2009/new110709a.htm

Jenkins, Patrick & Tett, Gillian. "Bankers try to fight off wave of controls." *Financial Times*. January 31, 2010. http://www.ft.com/cms/s/0/be5b72a4-0e85-11df-bd79-00144feabdc0.html

Jenkins, Patrick & Braithwaite, Tom. "Bankers in favour of paying global fee." *Financial Times*. January 30, 2010. http://www.ft.com/cms/s/0/ab5c1fec-0d08-11df-a2dc-00144feabdc0.html

Krugman, Paul. "Taxing the Speculators." *New York Times*. November 27, 2009. http://www.nytimes.com/2009/11/27/opinion/27krugman.html

Masters, Brooke. "GFI sounds alarm over Tobin taxes." *Financial Times*. January 28, 2010. http://www.ft.com/cms/s/0/446a7c36-0c2a-11df-8b81-00144feabdc0.html

Mehta, Nina & Kisling, Whitney. "Stock Tax May Reduce Volume 90%, Interactive Brokers CEO Says." *Bloomberg,* January 29, 2010. http://www.businessweek.com/news/2010-01-29/stock-tax-may-reduce-volume-90-interactive-brokers-ceo- says.html

Mihm, Stephen. "Stock Transfer Tax." *New York Times*. December 14, 2008. http://www.nytimes.com/2008/12/14/magazine/14Ideas-section4-t-005.html

Parker, George & Barber, Lionel. "Global bank tax near, says Brown." *Financial Times.* February 10, 2010. www.ft.com/cms/s/0/23a35d16-1692-11df-aa09-00144feab49a.html

Parker, George. "Brown foresees global accord on bank levy." *Financial Times.* January 25, 2010. www.ft.com/cms/s/0/6b5b92a8-09f0-11df-8b23-00144feabdc0.html

Parker, George and Barber, Tony. "EU leaders urge IMF to consider Tobin tax." *Financial Times.* December 11, 2009. http://www.ft.com/cms/s/0/aa162054-e65e-11de-bcbe-00144feab49a.html

Parker, George. "FSA backs global tax on transactions." *Financial Times.* August 27, 2009. http://www.ft.com/cms/s/0/08943b5a-926a-11de-b63b-00144feabdc0.html?nclick_check=1

Reuters. "Some wary of SEC's High-Frequency Presumptions." February 8, 2010. http://www.reuters.com/article/idUSN07133153201002O8

Semler, P.K. "Volcker rule unlikely to move forward in Senate, lawmakers say." *Financial Times.* February 1, 2010. http://www.ft.com/cms/s/2/76c55844-0f4b-11df-8a19-00144feabdc0,dwp_uuid=e8477cc4-c820-11db-b0dc000b5df10621.html

Spahn, Paul. "The Tobin Tax and Exchange Rate Stability." *Finance & Development.* June 1996. http://www.imf.org/external/pubs/ft/fandd/1996/06/pdf/spahn.pdf

The Economist. "Regulating banks. Garrottes and sticks." January 28, 2010. http://www.economist.com/businessfinance/displaystory.cfm?story_id=15394140

The Economist. "Regulating America's Banks. Stage prop." January 28, 2010. http://www.economist.com/opinion/displaystory.cfm?story_id=15393972

The Economist. "From bail-out to bail-in." January 28, 2010. http://www.economist.com/blogs/freeexchange/2010/01/bail-_roundtable

The Economist. "Buttonwood. Not what they meant." January 28, 2010. http://www.economist.com/business-finance/displaystory.cfm?story_id=15398189

The Economist. "The weakest links. New capital and liquidity rules will make the average bank safer. But what about the outliers?" January 21 2010. http://www.economist.com/opinion/displaystory.cfm?story_id=15330497

The Economist. "Embarrassment of riches. Bankers face a backlash over pay and a levy to recover bail-out funds." January 14 2010 http://www.economist.com/businessfinance/displaystory.cfm?story_id=15271252

White, Aiofe. "EU calls for global financial levy." *Associated Press.* December 11, 2009. http://abcnews.go.com/Business/wireStory?id=9309958

5.2 Electronic Resources

The Robin Hood Tax Campaign.
URL: http://robinhoodtax.org.uk/how-it-works/the-big-idea/

National Debit Tax.
URL: www.nationaldebittax.com

The Automatic Payment Transaction Tax.
URL: www.apttax.com

RAISING REVENUE
A review of Financial Transaction Taxes throughout the world

by Daiana Beitler

www.healthpovertyaction.org www.stampoutpoverty.org