

EN

EN

EN



EUROPEAN COMMISSION

Brussels, 7.10.2010
SEC(2010) 1166

COMMISSION STAFF WORKING DOCUMENT

Financial Sector Taxation

accompanying the

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

Taxation of the Financial Sector

{COM(2010) 549 final}

Table of Contents

Executive summary	3
1. Current Policy Objectives	4
2. Current taxation of the Financial Sector in Member States	5
2.1. Importance of the Sector	5
2.2. Share in Corporate Income Taxation	7
2.3. Value-Added Taxation	8
2.4. Overall assessment of financial sector taxation	9
3. Policy Instruments.....	9
3.1. The Financial Transaction Tax.....	10
3.2. The Financial Activities Tax.....	12
4. Financial Transactions Tax	13
4.1. Policy debate and options for an FTT	13
4.2. The economics of FTT	13
4.3. Potential for unilateral introduction	18
5. Financial Activities Tax	20
5.1. Policy debate and options for a FAT.....	20
5.2. The economics of FAT.....	20
5.3. Potential for unilateral introduction	26
Annex A: Taxation of financial transactions in the EU	27
Annex B: Country Experience	37
B.1 Transfer taxes and Stamp Duties	37
B.2 Member States' experiences with FAT elements.....	42

EXECUTIVE SUMMARY

The global economic and financial crisis has created important needs for fiscal consolidation. This document analyses potential instruments to raise additional tax revenues from the financial sector. It is organised as follows. The first section reviews the current policy objectives related to the taxation of the financial sector. The main goals driving this debate are: the use of taxation as (1) a complement to regulation to correct for negative externalities stemming from the activities of the financial sector, which include the effects of excessive risk-taking; (2) to ensure that the financial sector pays a fair and substantial contribution to public finances, in particular with regard to the economic and financial crisis; (3) to raise funds in the context of the exit-strategy. Section 1 also briefly discusses the link between taxation and regulation.

The second section sheds some light on the current tax treatment of the financial sector. The third section discusses potential tax instruments to reach the goals outlined above. The Financial Transaction Tax (FTT) and the Financial Activities Tax (FAT) are tax instruments which recently received considerable attention. Both will therefore be within the focus of this document.

The fourth and fifth section respectively assess the advantages and drawbacks of a Financial Transaction Tax and a Financial Activities Tax, including the issues raised by a possible introduction at the EU level only if no agreement is reached at G-20 level. The analysis shows that both instruments could be candidates for a tax on the financial sector (FAT) or on financial markets (FTT). An important difference between the two instruments is that the FAT seeks to target the value-added by the financial sector, while the FTT is directed at the transactions executed on financial markets.

1. CURRENT POLICY OBJECTIVES

The European Council stated in its conclusions of its meeting on 17th June 2010 with regard to the G-20 Toronto Summit that "[t]he EU should lead efforts to set a global approach for introducing systems for levies and taxes on financial institutions with a view to maintaining a world-wide level playing field and will strongly defend this position with its G-20 partners. The introduction of a global financial transaction tax should be explored and developed further in that context." This Staff Working Document (SWD) is based on an issues note that responded to this request. It outlines key issues relating to two distinct proposals for new forms of taxation of the financial sector. The SWD is a technical paper prepared by the Commission Services and does not prejudge future policy orientations.

In addition to the debate on further taxes on the financial sector, there is an ongoing discussion on how to avoid that the taxpayer would finance the resolution of failing banks in the future. With regard to the latter debate, the Commission has proposed the establishment of national resolution funds which would be financed by bank levies. The Commission has set out its main thoughts on this issue, which is distinct from financial sector taxation, in a recent Communication (COM(2010) 254)¹. It is not covered in this document.

The question as to whether new taxes should be levied on the financial sector to complement regulation and bank levies has been a topic since the beginning of the economic crisis. In this debate, **three main policy goals** can be identified²:

1. **Taxes could enhance the efficiency and stability of financial markets and reduce their volatility and the harmful effects of excessive risk-taking** which can create negative externalities for the rest of the economy. In particular, the financial sector might be too large and take too much risk due to actual or expected state support (resulting in moral hazard), information asymmetries and remuneration structures which together with macroeconomic developments contributed to the recent crisis.
2. The financial sector has been particularly profitable in the last two decades and there is a desire to **ensure that the financial sector makes a fair and substantial contribution to public finances**.
3. The financial sector is seen to bear a major responsibility in the occurrence and extent of the crisis. **The financial sector could therefore contribute via increased or new taxes to fiscal consolidation in the aftermath of the crisis**. These additional taxes could also be justified by the fact that the sector received substantial government support during the recent crisis and not all of it might be recouped.

In recent months, various tax measures have been debated in several international fora, including the EU and the G-20, with a view to pursuing these objectives. In this context, the European Commission services have published a Staff Working Document on innovative

¹ The Commission Communication on "Bank Resolution Funds" of 26 May 2010 suggests the setting up of 27 harmonised Member States' funds to finance the orderly and financially non-disruptive resolution of EU banks. It suggests that these funds should be pre-funded by financial sector contributions, referring to bank's liabilities as one potential reference value.

² There is also an ongoing debate about the use of potential revenue. This paper will not contribute to this debate.

financing at global level that dealt inter alia with financial sector taxation³. Furthermore, the IMF has presented a report to the G-20 ministerial meeting in June 2010 on possibilities for taxing the financial sector⁴. At this stage, there is not yet a consensus on an internationally coordinated tax at the G-20 level, partly reflecting the differential impact of the crisis across its members. The question therefore arises whether the unilateral introduction in the European Union of some of the instruments that have been subject of debate would be feasible and reasonable.

This debate on a unilateral introduction takes place in an environment where the European economy is gradually recovering from the crisis. The financial sector can play an important role in this recovery by providing credit to companies and households⁵. The debate about additional tax measures must therefore also take into account the impact of these measures on the supply of credit by the financial sector in both the short- as well as in the long-run and in particular the exit from extraordinary public support measures directed at the financial sector. They should also be considered in conjunction with other public policy, especially regulatory reforms that have been or are likely to be introduced so that decisions makers are appraised of their cumulative impact, including consumers (notably households and SMEs). New taxes will also have transitional and longer term effects on the overall business of the financial sector and thus the EU economy⁶. In particular, the design of tax instruments would have to be fine-tuned to minimize effects on interbank lending and the costs of financing for EU Member States, businesses and households in the future.

2. CURRENT TAXATION OF THE FINANCIAL SECTOR IN MEMBER STATES

2.1. Importance of the Sector

In most if not all Member States, one element of the financial sector, the banking sector⁷, is both of high economic importance and relatively concentrated. For the EU27, the assets of banks and the amount of private credit represent about 140% and 130% of GDP respectively, while the amount of bank deposits and the stock market capitalisation of the banking sector are about as high as GDP. The average combined share of assets of the three largest banks in each Member State is about 70%⁸. However, national shares range widely across Member States.⁹

³ See European Commission (2010), Innovative financing at a global level - Commission Staff Working Document SEC(2010) 409, 1.4.2010.

⁴ IMF (2010), A Fair and Substantial Contribution by the Financial Sector, Final Report for the G-20, June 2010.

⁵ The OECD defines the Financial Sector as the set of institutions, instruments, and the regulatory framework that permit transactions to be made by incurring and settling debts; that is, by extending credit. See <http://stats.oecd.org/glossary/detail.asp?ID=6815>. For the purpose of this document the term financial sector is used along those lines.

⁶ See COM(2010) 301 for a complete set of regulatory measures already taken or currently under consideration.

⁷ The banking sector is only a part of the whole financial sector which also includes credit card companies, insurance companies, consumer finance companies, stock brokerages, investment funds and some government sponsored enterprises.

⁸ Assets of three largest banks as a share of assets of all commercial banks.

⁹ 2008 Data from Thorsten Beck and Asli Demirgüç-Kunt, Financial Institutions and Markets Across Countries and over Time: Data and Analysis, World Bank Policy Research Working Paper No. 4943, May 2009.

Table (1a): Share of the financial sector in total value-added

	Australia	United States	Canada	Japan	Euro area
1980	3.74	4.91	4.84	5.17	4.74
1990	5.73	5.86	6.00	5.95	5.52
1995	6.06	6.64	6.62	6.18	5.46
2000	7.14	7.54	7.06	5.82	4.99
2005	7.79	7.97	7.37	6.69	6.32
2006	7.85	8.05	7.64	6.71	6.16
2007	8.99	7.90	7.78	6.43	5.89
2008	8.71	8.02	7.93	5.59	5.84
2009	8.53	8.08	8.15		

Source: BIS (2010), 80th annual Report, page 77.

In terms of relative size, the sector has generally grown both in terms of value-added and market capitalisation. Here again, there are country-specific developments and an impact of the financial crisis.

Table (1b): Share of the financial sector in total value-added (EU27, NO and CH)

	1980	1990	1995	2000	2005	2006	2007	2008	2009
EU27	n.a.	n.a.	n.a.	4.7	5.2	5.3	5.3	5.3	5.8
BE	n.a.	6.0	6.3	5.9	5.7	5.6	5.4	5.0	n.a.
BG	n.a.	n.a.	n.a.	n.a.	5.5	5.6	6.9	n.a.	n.a.
CZ	n.a.	n.a.	3.1	2.7	2.9	2.9	3.6	3.5	n.a.
DK	n.a.	4.7	5.2	4.7	5.4	5.4	5.6	5.8	7.1
DE	n.a.	n.a.	4.4	3.9	4.3	4.1	3.6	3.4	n.a.
EE	n.a.	n.a.	2.2	4.1	3.6	3.8	4.0	4.0	n.a.
IE	n.a.	n.a.	n.a.	n.a.	10.3	10.5	10.9	10.3	n.a.
EL	n.a.	n.a.	n.a.	5.4	4.6	4.7	4.6	4.4	n.a.
ES	n.a.	n.a.	n.a.	4.5	4.5	4.6	5.2	5.2	n.a.
FR	4.5	5.4	4.8	5.1	4.8	4.9	4.7	4.5	5.0
IT	n.a.	4.7	4.4	4.4	4.4	4.4	4.8	5.0	n.a.
CY	n.a.	n.a.	5.3	6.5	6.8	7.5	7.8	8.0	n.a.
LV	n.a.	n.a.	5.0	4.9	5.9	6.8	6.2	6.0	n.a.
LT	n.a.	n.a.	2.1	2.2	2.3	2.9	3.3	3.5	n.a.
LU	n.a.	n.a.	21.8	24.8	25.6	29.5	28.1	28.9	n.a.
HU	n.a.	n.a.	3.0	2.9	4.2	4.1	4.0	3.9	n.a.
MT	n.a.	n.a.	n.a.	5.9	4.9	5.0	4.4	4.6	n.a.
NL	4.9	4.9	6.2	5.9	7.4	6.5	5.6	5.9	n.a.
OE	n.a.	n.a.	5.7	5.6	5.3	5.5	5.6	5.2	n.a.
PL	n.a.	n.a.	2.6	4.9	4.3	4.5	5.2	5.2	n.a.
PT	n.a.	n.a.	6.1	6.0	6.4	7.3	8.2	9.0	9.0
RO	n.a.	n.a.	n.a.	4.4	2.3	2.0	2.1	n.a.	n.a.
SI	n.a.	n.a.	5.7	4.7	4.3	4.8	4.4	4.3	n.a.
SK	n.a.	n.a.	6.2	2.2	4.3	3.6	3.3	3.4	n.a.
FI	2.5	4.1	4.4	4.5	2.5	2.9	3.2	2.8	3.2
SE	n.a.	n.a.	4.5	4.5	4.7	4.1	3.9	3.8	4.5
UK	n.a.	6.1	5.8	5.1	7.0	7.6	8.2	9.6	n.a.
NO	3.5	5.2	4.4	3.0	3.9	3.7	3.9	n.a.	n.a.
CH	n.a.	n.a.	8.5	13.2	12.0	12.8	13.7	n.a.	n.a.

Source: Eurostat Annual Sectoral Accounts.

Table (2): Share of the financial sector in total market capitalisation

	1970s	1980s	1990s	2000s
CA	13.77	17.16	21.40	29.98
DE	20.81	29.89	31.73	24.31
UK	23.33	18.75	19.99	26.20
JP	20.72	24.21	26.42	17.90
US	5.61	8.35	14.02	19.96

Source: BIS (2010), 80th annual Report, page 77.

2.2. Share in Corporate Income Taxation

The debate on a fair contribution of the financial sector to corporate tax collection cannot be disconnected from the issue of profitability of the sector. There is evidence that the financial sector has been more profitable than the non-financial sector over the last two decades¹⁰. This is not problematic as such if higher profit is related to high productivity. However, the high profitability of the sector could result from certain sector specific characteristics. For example, the financial sector is different from other sectors in respect of the existence of an (implicit or explicit) safety net which, combined with banking regulation may enable some institutions to enjoy economic rents; and in the relative ability of certain financial institutions to use leverage to increase returns.

Table (3): Return on equity in BIS reporting countries

	95-09	95-00	01-07	08-09
Banks	12.2	13.3	12.8	3.2
Non-bank financials	11.2	12.3	11.4	5.4
Non-financials	11.7	10.9	12.8	9.8

Source: BIS (2010), 80th annual Report, page 75. Return on equity is defined as net income over total shareholder funds. Median values across years and institutions.

High profitability can possibly point to the existence of economic rents that are captured either by managers in the form of higher remuneration or by shareholders in the form of higher returns. Current available data is unfortunately scarce and patchy. Table (3) seems to indicate that return on equity in the financial sector has broadly been at par with that of the non-financial sector. However, these median values hide large variations across institutions, years and countries. For example, the Bank for International Settlements reveals that German financial companies have posted higher return on their stocks than German non-financial companies since the 1970s up to the financial crisis, but the same cannot be said for e.g. UK companies except in the 1990s (see Table 4)¹¹. Turning to remuneration, there is some piecemeal evidence which would suggest that remuneration in the financial sector is or has been higher than in other sectors¹².

In terms of their contribution to corporate tax receipts, the financial sector accounted for a substantial share of such revenues before the crisis. The EU-27 GDP-weighted average share

¹⁰ See Devereux, M.; Griffith, R; and A. Klemm (2004), Why has the UK Corporation Tax Raised so Much Revenue?, *Fiscal Studies*, 25(4): 367-388.

¹¹ Higher performance of stocks also partly reflects higher risk (measured by volatility).

¹² See for example Philippon, Thomas, and Ariell Reshef (2009), Wages and Human Capital in the US Financial Industry: 1909 – 2006. CEPR Discussion Paper No. 7282. They found for the US that starting in the 1990s 30% to 50% of the wage differential between the financial and non-financial sectors is due to rents.

of the contribution by the financial sector to total corporate tax collection was around 20% in both 2006 and 2007. It decreased to 17% in 2008 as a result of the crisis and this share will most probably decrease further in the coming years due to the fact that the accumulated losses during the crisis will reduce future tax payments via loss carry-forward. The values for the EU27 are similar to those for many non-EU G-20 countries, as collected by the IMF for its report to the G-20. For example, between 2006 and 2008, the share of the financial sector in total corporate tax collection was around 18% for the United States, 23.5% for Canada and around 15% in Brazil and Australia.

Table (4): Relative return of financial stocks

	1970s	1980s	1990s	2000s
Canada	2.25	-0.39	2.48	5.70
Germany	1.82	3.29	4.10	-6.65
United Kingdom	-1.10	-4.03	2.66	-6.34
Japan	-7.17	2.80	-5.06	-0.25
United States	-1.58	-1.33	4.42	0.07

Source: BIS (2010), 80th annual Report, page 76. Average return on financial stocks minus that on non-financial stocks, annualised in percent.

For the EU27, the share of the financial sector employment in total employment is 3%. Its share in total value-added is 5%. Despite this, its share in total Corporate Income Taxation (CIT) is around 20%. This is however no evidence that the financial sector is over-taxed as higher profitability – whether it stems from rents or not – inevitably leads to higher taxes. It is indeed difficult to determine a benchmark against which to assess whether the financial sector is over- or under-taxed.

2.3. Value-Added Taxation

If statutory provisions of corporate tax systems do not seem to differentiate between the financial sector and the non-financial activities, the same is not true for Value-Added Taxation (VAT). Since the adoption of the Sixth VAT Directive in 1977, the EU's common value added tax system has generally exempted mainstream financial services including insurances and investment funds. Article 135(1) of the VAT Directive provides an exemption from VAT for most financial and insurance services¹³. To some extent the Directive reflects an uncertain approach in that it also allows EU Member States to grant taxable persons the option of taxing financial services – to the extent that this is technically possible. The difficulty is, however, to technically define the price for specific financial operations. Around

¹³ In this respect it should be noted that the relatively recent Commission proposals for a Directive - COM(2007) 747 - and a Regulation - COM(2007) 746 - as regards the VAT treatment of insurance and financial services aim at modernising and simplifying the current complex VAT rules for financial and insurance services and securing a level playing field in the pan-EU market for these services as far as VAT is concerned. The proposals will create more certainty and security for Member States and for financial and insurance institutions by setting clear modern definitions of exempt services. It will also allow these institutions to manage the costs of non-deductible VAT by allowing them, where technically possible, to opt for taxation and by clarifying and extending the tax exemption for cost sharing arrangements.

2/3 of all financial services are margin based which makes the implementation of the invoice-credit VAT system very difficult in this respect¹⁴.

The extent to which applying VAT to the financial sector would raise additional tax revenues and – consequently – the extent to which the exemption constitutes an under-taxation case for the financial sector is an unsettled empirical question. Whereas the exemption means that the financial sector does not charge VAT on most of its output, it cannot deduct the VAT charged on its inputs. This is known as the 'irrecoverable VAT problem'. Based on case studies, PricewaterhouseCoopers (2006) found that VAT recovery rates in the financial sector varied from 0% to 74%¹⁵. The variations in recovery rates could be explained by differences in the way in which the Member States interpret the scope of the exemption and the option to tax.

In some Member States, financial institutions are subject to specific tax measures designed to compensate for the VAT exemption. These are known as the application of the addition method and will be discussed in the section on the Financial Activities Tax¹⁶.

2.4. Overall assessment of financial sector taxation

While the CIT does not seem to tax the financial sector lighter than other sectors, the VAT exemption of financial services might lead to a favourable tax treatment of the sector despite the fact that input VAT is not deductible for the sector. There are currently no data on the contribution of the sector to overall personal income tax receipts (via the taxation of financial sector employees' wages and salaries).

3. POLICY INSTRUMENTS

In addressing the three policy goals outlined above a number of tax instruments have been discussed in recent months¹⁷. It is important to distinguish these proposals as they are often confused in the public debate. In this following section, the focus will be on the Financial Transaction Tax (FTT) and the Financial Activities Tax (FAT). The two instruments represent two different approaches to taxation. While the FTT is a turnover tax on financial transactions, the FAT is a profits and remuneration based tax. Other instruments have been discussed, decided or already enacted in several Member States but will not be discussed here. Such taxes include:

¹⁴ The problem of VAT on financial services is described in detail in Kerrigan, Arthur (2008): *The Elusiveness of Neutrality – Why Is It So Difficult To Apply VAT to Financial Services?* International VAT Monitor March/ April 2010.

¹⁵ PricewaterhouseCoopers (2006), *Economic effects of the VAT exemption for financial and insurance services*, Report to the European Commission.

¹⁶ Note that some countries apply specific method to compensation for VAT exemption. For example, New Zealand applies VAT to general insurance (but not to life insurance, creditor protection policies, and other financial intermediation services), Singapore taxes agency services, Australia includes financial agency services and non-life insurance and provides input credits for financial services, Israel and Quebec apply the addition method (Poddar, S., 2003, *Consumption Taxes: The Role of the Value-Added Tax in Taxation of Financial Intermediation*, P. Honohan Editor, Oxford University Press, pp. 345-380.

¹⁷ For a presentation and evaluation of instruments under consideration see the documents from the IMF and the European Commission cited above.

(a) Bonus taxes: impose a surcharge on bonuses paid to employees in specific sectors and which are above a defined threshold.

(b) A surcharge to the corporate income tax for the financial sector.

(c) A Currency Transaction Levy (CTL): this would have the same principle as the FTT but would target currency conversions only. A “Global Solidarity Level” based on this principle was recently proposed by the Committee of Experts to the Task Force on International Financial Transactions and Development” in a recent report¹⁸. Contrary to the FTT, the levy is not designed to change market behaviour as such. The study argues that the very low rate of 0.005% would lead to only negligible effects on markets. It is designed as a pure revenue raiser¹⁹.

One reason for not including these instruments is that increased profit and bonus taxation is covered by the FAT, while a currency transaction levy is part of a general FTT.

Furthermore, a general remark on tax revenue estimates for new tax instruments should be made. Estimating revenue changes when reforming existing taxes is already a difficult task since behavioural changes due to tax rate or base changes are often difficult to predict. Estimating revenue for taxes which would be newly introduced and which have (at least for the FTT to some extent) the goal to change market behaviour and structure significantly is even more challenging. Therefore, all revenue estimates presented below should be interpreted with great caution and serve mainly to give an order of magnitude. Moreover, notwithstanding the often substantial projected receipts, the consequences of governments increasing their reliance on this relatively volatile sector for their revenues should be considered carefully.

3.1. The Financial Transaction Tax

The concept of a Financial Transaction Tax has recently received wide public attention. Such a tax would be applied to all financial transactions in particular those carried out on organised markets such as the trade of equity, bonds, derivatives, currencies, etc.²⁰. It would be levied at a relatively low statutory rate and would apply each time the underlying asset was traded. The tax collection or the legal tax incidence should be – as far as possible – via the trading system which executes the transfer²¹.

¹⁸ The Experts to the Leading Group’s Task force on International Financial Transactions and Development recommended for a number of reasons the global application of a currency transaction levy to finance development aid. This tax is a subset of the broad FTT discussed here. It limits the scope to currency transactions only. <http://www.leadinggroup.org/article668.html>.

¹⁹ As far as a CTL is concerned, levying a tax of 0.005% on the world’s most traded currencies could yield an amount of EUR 24 billion annually using data from 2007. According to recent estimates, a CTL of this rate levied on transactions with the euro involved would yield a yearly amount of EUR 9.5 billion while a coordinated tax on all major currencies except the USD would generate EUR 15.5 billion. A tax on Euro and Pound only would raise some EUR 12 billion per year. See Schmidt, Rodney (2008): *The Currency Transaction Tax – Rate and revenue estimates*, North-South Institute, United Nations University Press. Hillman, David (2009): *The Currency Transaction Levy*.

²⁰ Directive 2004/39/EC establishes clear definitions of regulatory market and multilateral trading system.

²¹ Note that the legal or statutory tax incidence can be different from the economic incidence. The latter will be discussed in more detail below.

In order to give a range of potential revenues, two different scenarios will be discussed in this paper. The variants discussed here differ in their definition of the tax base²².

a. A broad based FTT (FTT1)

The first variant is to tax stock, bond and derivative transactions on exchanges as well as over-the-counter (OTC) traded instruments²³. For stocks and bonds the value of the transaction constitutes the tax base, for derivatives the notional (or underlying) value of the contract. This is FTT1 which has a very broad tax base due to the inclusion of derivatives²⁴. The revenue raising potential of the tax as well as its economic effects depends on the design of the tax and especially on the tax bases selected. In general, the tax base is usually defined as the value of the transaction. For example, if an investor buys 20 shares of a corporation worth EUR 100 per share the tax base would be EUR 2,000. In this sense, it is easy to define tax bases for transactions where the asset price is determined by the market at the time when the transaction is executed. This is the case for spot transactions like stocks, bonds and currency exchanges.

For derivatives, the determination of the transaction value is more complex. In principle, one could argue that the value of the notional value could be the tax base. Given the sometimes high leverage of certain derivatives this has two effects. On the one hand, taxing the notional value creates a very large tax base. On the other hand, the tax payment is large compared to the actual price paid for the contract. While this could reduce leverage taken by means of these contracts it would also increase the costs for companies when hedging risk. Also, taxing the notional might lead to double taxation in the case where the underlying is traded and taxed at the spot market if for example an option is executed. Instead of taxing the notional, an alternative way of taxing derivatives could be to tax the actual price only²⁵. However, this would reduce the tax base significantly. Taken together, there remain important issues with regard to the definition of the tax base for derivatives.

b. A narrow based FTT (FTT2)

This is the reason why a second tax base is considered. This narrow based FTT is called FTT2. FTT2 is based on the conservative assumption that only bonds and stock transactions are taxed. These two scenarios describe two potential tax bases, one at the high, and the other at the low revenue end. In case of an implementation of an EU-wide FTT, it will depend on the precise definition of the EU tax scope and base whether it is closer to the broad FTT1 or the narrow based FTT2.

²² Some current proposals envisage limiting the scope to a subset, namely the above mentioned. currency transaction levy.

²³ The OTC transactions include derivative transaction as well as foreign exchange spot transactions.

²⁴ FTT1 corresponds to the data basis for the estimates in Schulmeister, Stephan, Margit Schratzenstaller and Oliver Picek (2008). A General Financial Transaction Tax. Motives, Revenues, Feasibility and Effects. Research Study by the Austrian Institute of Economic Research.

²⁵ This is only possible for derivatives where a premium is actually paid. This is not the case for all types of derivatives, notably interest rate swaps.

3.2. The Financial Activities Tax

Within its G-20 report which focuses on making the financial sector pay for public interventions, the IMF is proposing introducing a Financial Activities Tax (FAT)²⁶. A Financial Activities Tax would be levied on the sum of profit and remuneration of financial institutions. In practice, several countries already apply some versions of Financial Activities Tax (see Section 5.4).

The IMF proposes three alternative versions of the FAT:

a. The addition method FAT.

A broad version of the FAT would be to tax the sum of wages and profits defined in cash-flow terms, i.e. with full expensing of investment and no deduction for financial costs. In other words, the base would be the profit, minus capital formation, plus wages.

As such, this tax base would proxy value-added by taking the sum of cash-flow profit and remuneration for each tax period. It has been used in some countries as a surcharge applied to sectors that are fully or largely exempted from VAT. In fact, such a system is also known as the addition method VAT.

b. The rent-taxing FAT.

The FAT can also be designed to tax rents only. Such a tax would be designed by taxing remuneration and cash-flow profit above a defined level of profit. The threshold for cash-flow profit could exclude 'normal profit' by the application of either an Allowance for Corporate Equity (ACE, which allows the deduction of a notional allowance for equity) or a definition of profit which would include both real transactions and financial transactions²⁷. For remuneration, the threshold would be more arbitrary and could include a benchmarking exercise across sectors.

c. The risk-taxing FAT.

A third version of the FAT would tax excess return due to unduly risky activities. This version of the FAT is very similar to the rent-taxing FAT. The difference is that both exempt the normal profit either automatically (in the case of an R+F base) or by the application of a rate that is designed to be roughly similar to the cost of debt-financing (in the case of ACE), while for the risk-taxing FAT, the threshold is in addition set at a level based on what is considered

²⁶ For the reasons explained in section 2.2, the idea of a (profit) tax targeted on the financial sector was also floated in the European Commission's staff working document on innovative financing at a global level. The European Commission also pointed to taxation of bonuses, which represents a way of taxing economic rents if those are captured by managers via higher bonuses.

²⁷ A cash-flow corporate tax base can be of 3 different types: the R-base, the R+F base, or the S-base. The R-base corporate cash-flow includes real transactions only. That is the difference between sales and purchases, excluding financial transactions (both in terms of revenues or expenses). The R+F base includes real transactions and non-equity financial transactions (i.e. borrowing and lending of funds). This is the sum of sales, borrowed funds, interest received and loan repayments, minus the sum of purchases, interest paid, debt repaid and lent funds. The S-base includes the net flow from corporations to shareholders. This is dividends paid plus the purchase of shares, minus the issue of new shares. See OECD (2007), *Fundamental Reform of Corporate Income Tax*, Paris.

as excessive return to (average) equity. Therefore, parts of the rents could theoretically be untaxed as long as the return to equity does not exceed this threshold.

4. FINANCIAL TRANSACTIONS TAX

4.1. Policy debate and options for an FTT

A Financial Transaction Tax has been recently discussed and received attention from the European Parliament²⁸, the European Council and a number of Member States.

One reason for the interest in the FTT is that the tax could address all three policy goals outlined above at the same time. In this sense, the tax might create a triple dividend by improving market efficiency, act as a contribution of the financial sector and raise substantial revenue. However, opponents argue that the FTT would not address the harmful effect of excessive risk-taking seen in the run-up to the recent crisis since it does not address or only in an indirect way the underlying market failures e.g. the misaligned incentives in the financial sector.

While there is large interest in achieving the goals outlined above by the implementation of an FTT, the debate has not yet focused on more detailed issues, including the definition of the tax base, the tax rate, the taxable event and the degree of coordination needed for a successful implementation of an FTT.

4.2. The economics of FTT

The rationale for the FTT is based on two assertions about the tax. Firstly, it is seen to improve the functioning of financial markets through curbing harmful short-term speculation and reducing volatility by making it less profitable. Secondly, it is expected to raise significant amounts of revenue, even if the tax rate is very low (e.g. 0.1 %)²⁹.

a. Effects on financial markets

The FTT has - independent of its tax base definition - a number of economic effects. It is seen to be efficiency enhancing. This argument is based on the idea that short-term and high speed trading is particularly harmful and speculative. Proponents of a financial transactions tax argue that the tax would reduce speculation, thereby linking trade more closely to the underlying fundamental economic market conditions and make financial markets less volatile. The assumption behind this is that most short-term trading is either highly speculative or

²⁸ The European Parliament's Resolution of 10 March 2010 asks the Commission and Council to look at how the tax could be used to finance development cooperation and help developing countries to combat climate change, as well as how the tax could contribute to the EU budget.

²⁹ The FTT was also debated at the G-20 level. The IMF report on a fair and substantial contribution of the financial sector came to the conclusion that the tax should not be dismissed on the ground of administrative problems. However, the report voiced reservations as regards the advisability of a FTT for the purpose of the G-20 to make the financial sector pay a fair and substantial contribution towards paying for any burden associated with government interventions to repair the banking system. The IMF document argued that the tax might create side effects which could be detrimental to the functioning of markets. The Staff Working Document of the European Commission on "Innovative Finance at global level" came to similar conclusions.

based on technical trading which relies on historical asset prices but does not take into account the fundamental economic data.

In reality, it turns out to be difficult to make a meaningful and operational distinction between speculative and non-speculative transactions. It is impossible to disentangle harmful from beneficial transactions simply based on their time-horizon³⁰. It has in particular been shown that the time horizon of an investment is not necessarily a good predictor for the degree of uncertainty or speculation underlying the potential yield of that investment. For example, short-term financial transactions are often related to trade or other commercial transactions such as hedging. Under a broadly based FTT all short- and long-term transactions would be taxed, including transactions aimed at longer-term investments by pension and insurance funds. On the other hand, high frequency computer trading would become more expensive with an increase in transaction costs. This could indeed be seen as an improvement if this is "excessive" trading without economic function.

One could interpret this as a private overinvestment in information retrieving which has no social value since it does not improve market efficiency as argued by Stiglitz (1989)³¹. However, short-term transactions also have the function to allow arbitrage to equalize prices and find counterparts to trade with. Many empirical studies show that the introduction of transaction taxes reduce the number of transactions, making it more difficult to find counterparts on markets and disrupting the arbitrage function, leading to more price volatility³².

The tax would also increase the cost of financing for companies and governments via higher interest rates if the tax falls on the investor. This could be solved by exempting certain products from the tax. However, exempting products might also increase administrative costs by defining rules for exemption. It would also contradict the argument that wide product coverage would be preferable in order to reduce short-term speculation on all products.

Given the complexity of some financial transactions, the impact of a transaction tax and the feasibility of such a tax remain largely uncertain in many cases. Given this complexity, there may be considerable unintended effects and the possibilities of circumvention of the tax increase with the complexity of the operation. An implementation of a tax would therefore also require a mechanism that deals with new financial products which might be created in the future. Options could be to automatically add new financial instruments to the tax base in each country or to negotiate their taxation at the EU-level. The risk of tax avoidance exists also in geographical terms as some transactions might move to jurisdictions which do not apply the tax.

³⁰ It must be said that there is no agreement among economists on which operations may be considered as "speculative" and which ones may not.

³¹ Stiglitz, Joseph (1989). Using Tax Policy to Curb Speculative Short-term Trading. In: Journal of Financial Service Research, 3(2-3): 101-115.

³² The Commission Staff Working Document and the IMF report to the G-20 discuss this issue in more detail.

Finally, the FTT is at variance with the requirement of “production neutrality”, as it changes relative input prices for business³³. It is comparable to a sales tax and since it is levied on transactions rather than value added it is cumulative. Products which are more frequently traded than others, e.g. the shares of large companies with many shareholders will face higher tax burdens.

b. Tax Incidence – Would the Financial Sector carry the burden?

There is no empirical evidence on the real incidence of a FTT. Transactions taxes are under the political and public spotlight because they are perceived as a contribution of the highly speculative financial institutions to the costs of the financial crisis. However, there is often a difference between the legal tax payer (legal incidence) and the economic agent who actually carries the economic burden of a tax (economic incidence). In the context of a Financial Transactions Tax, the economic incidence of the tax could fall either on traders, on stock exchanges, on companies and governments (via higher capital costs) or on final consumers via higher prices for financial services. For evaluating the distributional aspects of the tax, a starting point is to analyse whether the tax is progressive (i.e. it taxes the rich proportionally more than the poor or less wealthy). Unfortunately, such empirical analyses are currently unavailable, because of a lack of data. It is often argued that the tax could potentially have progressive properties since rich people are supposed to hold, and therefore trade, more than poorer ones. However, it cannot be taken for granted that this assumption necessarily holds since it also concerns the activities of financial intermediaries such as pension funds, which also manage the savings of middle- and lower-income earners.

c. Revenue estimates

For the FTT1, the Austrian Institute of Economic Research estimated the potential revenue of a general FTT for 2006. The Austrian figures suggest that a general FTT rate of 0.1% could raise between USD 177 billion (EUR 145) and USD 467 billion (EUR 372) in Europe depending on the assumptions of the decrease in trading volume³⁴. The major part of these substantial amounts (between 80% and 90% of the revenue, depending on the assumptions about the reduction of transactions) would be collected from taxing transactions in derivatives on organised exchanges and transactions on over-the-counter (OTC) derivative markets. These estimates are based on the assumption that the entire notional value of the traded derivatives would constitute the tax base and therefore, they must be considered with caution when assessing the actual size of the tax base and revenues³⁵. There are also doubts on the

³³ This is the result of the production efficiency theorem. Since taxing production reduces total output, it is more efficient to tax output directly. (Diamond and Mirrlees (1971), *Optimal Taxation and Public Production*. The American Economic Review, Vol. 61)

³⁴ Note that Switzerland and Norway are included in this estimate. Values have been converted to EUR using the average exchange rate for 2006 of 1.2556 USD/EUR.

³⁵ An example for taxing the notional value of a derivative is the following. An EU-based company has to pay a bill of USD 11million in 3 months and fears a devaluation of the Euro. The company wants to hedge the risk that the Euro falls below USD 1.10. It acquires an option to buy USD at an exchange rate of 1.10 USD per Euro in 3 months. The price for this option is EUR 30,000. The value of the underlying is USD 11 million = EUR 10 million EUR. Assuming a very low tax rate of 0.01%, the tax payment would be EUR 1,000. Now compare the tax payment (EUR 1,000) to the price (EUR 30,000). If we define the tax payment in relation to the real cash-flow of buying the option as an effective tax rate, the effective rate is 3.3% in this example. Now assume that the company wants to hedge the

quality of the data for revenue estimates for derivatives. Table (5) gives the potential revenue for some EU countries. Given the above-mentioned open issues with the notional value as tax base, the estimates might be too high.

Table (5): Estimated revenue from taxing shares, bonds, and derivatives (FTT1) for countries where data was available, EUR billion (2006), tax rate 0.1%

Country	BE	DE	FR	IT	OE	NL	UK
Projected Receipts	3.3	35.5	15.0	5.1	1.6	5.1	162.8

Source: Schulmeister et al. (2008)

Using FTT2 as the tax base and therefore not taxing derivatives traded on OTC markets and exchanges, the remaining tax revenue from spot transactions on exchanges would be between USD 72 (EUR 57) billion and USD 80 (EUR 64) billion or 0.15% and 0.17% of global GDP. Table (6) shows the estimates for some European exchanges in more detail.

Table (6): Estimated revenue from taxing shares and bonds (FTT2), EUR million (2008), tax rate 0.1%

Exchange	Share Trading	Bond Trading	Revenue Shares	Revenue Bonds
Athens (EL)	77,282	28	62	0
BME Spanish (ES)	1,639,054	4,650,178	1,311	3,255
Borsa Italiana (IT)	1,019,484	175,458	816	123
Bratislava SE (SK)	14	23,049	0	16
Bucharest SE (RO)	1,601	46	1	0
Budapest SE (HU)	20,877	1,613	17	1
Bulgarian SE (BG)	1,261	125	1	0
Cyprus SE (CY)	1,397	15	1	0
Deutsche Börse (DE)	3,181,146	123,943	2,545	87
Irish SE (IE)	55,695	24,944	45	17
Ljubljana SE (SL)	1,589	255	1	0
London SE (UK)	4,264,020	4,465,192	3,411	3,126
Luxembourg SE (LU)	1,299	57	1	0
Malta SE (MT)	48	435	0	0
NASDAQ OMX Nordic Exchange (DK, EE, FI, IS, LV, LT, SE)	909,832	1,991,782	728	1,394
NYSE Euronext (BE, FR, NL, PT)	2,999,217	33,099	2,399	23
Prague SE (CZ)	29,880	22,685	24	16
Warsaw SE (PL)	47,253	702	38	0
Wiener Börse (OE)	71,177	800	57	1
Total	14,322,128	11,514,404	10,025	8,060

Source: World Federation of Exchanges and own calculations.

Applying the tax only to bonds and stock trades without derivatives (FTT2) in the EU27 and Iceland exchanges, the revenue estimate is around EUR 18 billion for 2008. The (simple)

extreme case that the Euro drops below parity with the USD. The price would be only 5,000 EUR in this case given the low risk that this case will occur in the next three month. In this case, the tax base is USD 11 million = EUR 11 million. The tax payment would be EUR 1,100. This leads to an effective tax rate of 22% when relating the tax paid with the actual price paid. For the taxation of derivatives, the effective tax rate as defined above will therefore be different and depend on the characteristics of the contract.

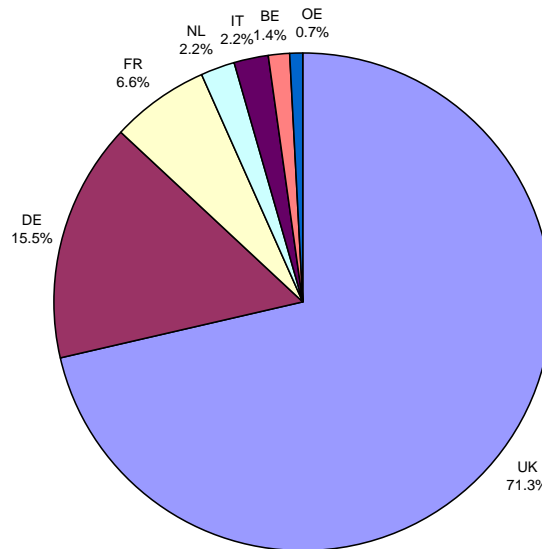
assumptions made here are a reduction in trade volumes of only 30% for bonds and 20% for shares and a tax rate of 0.1%. Table (6) shows the results for some European stock exchanges based on data from the World Federation of Exchanges (WFE). Note that some exchanges cover more than one country. The data does currently not provide a split to separate transactions between those countries which share exchanges.

Note that the use of backward looking data (2006 for FTT1 and 2008 for FTT2) might create too high revenue figures. Values might be lower in the future years, in particular due to underestimation of tax avoidance due to relocation of markets and migration to non-taxed products, depending on the feasibility of wide geographical coverage and the inclusion of a wide range of financial products and markets (exchange and over-the-counter) in its scope. Also, it is not clear whether all transaction volumes which are used in the estimates can actually be taxed according to the assumptions made. This is especially the case for the taxation of derivatives which account for the largest part of the revenue estimates in FTT1. Furthermore, behavioural changes might depend on the characteristics of individual markets. In conclusion, the revenue estimates have to be interpreted with caution³⁶.

The potential tax revenues would be very uneven from a geographical point of view. Since investors from all over Europe and the world use the big financial centres the economic burden might be transferred at least partly to these international investors even though the tax would be collected in national markets. As figure 1 shows that uneven revenue is more pronounced for the FTT1 with derivatives included. Note that data is not available for all Member States for these estimates. However, it is reasonable to assume that the revenue for most Member States not listed in the graph is marginal since their financial sectors are in most cases relatively small compared to the countries included.

³⁶ For a critical review of revenue collection from transactions taxes see also Honohan and Yoder (2010): Financial Transactions Tax - Panacea, Threat, or Damp Squib? *World Bank Policy Research Working Paper* No. 5230, March 2010.

Figure (1): Share in tax revenue of selected EU Member States (FTT1)



Source: Schulmeister et al. (2008)

The revenue estimates in Table (6) show that also for FTT2 most revenue is collected in larger European exchanges like the UK, Spain and Germany. In the EU, most revenues from the general financial transactions tax would be collected in countries with significant financial centres, while revenues in most other countries would be much lower. One might argue that while all countries introduce the tax and carry some of its burden, the benefit of the tax in terms of revenue is located only in few countries with large financial centres. However, the economic distortions in terms of reduction in trade volumes and risk of relocation of financial transactions due to the tax might also be strongest in countries with large financial centres.

In conclusion, the uneven revenue collection might be of less importance if the tax is an effective device to improve market efficiency to the benefit of all investors, domestic and foreign. If the goal of the tax is to raise revenue, this would raise the question as to who should receive the revenue of such a tax and whether or not an agreement to share revenues internationally should be envisaged since otherwise benefits will be distributed unevenly.

4.3. Potential for unilateral introduction

A prerequisite for a global as well as a unilateral introduction of a transaction tax at EU level is a relatively high degree of co-ordination of tax bases and tax rates. The financial products covered by the tax as well as the applicable tax rates should be the same in all countries concerned or at least vary only marginally. This is necessary to reduce incentives for shifting to markets with lower tax rates and smaller product coverage. There might also be a need to find solutions with financial centres outside Europe in order to reduce the migration of

transactions. Although some third countries use such taxes, the tax coverage is usually narrow and allows certain exemptions which might create possibilities for relocation³⁷. Also, relocation might occur to financial centres outside the continent which do not have any transaction taxes. The strength of this effect depends on the level of the tax rate and the perimeter of the tax base.

The Swedish experience with transaction taxes which is described in detail in Annex B shows that if evasion and relocation is easy and cheap, the market effects can be dramatic. However, legal security could be a means to decrease the potential for relocation. For example the UK stamp duty (Annex B) that covers only transaction in securities of UK-registered corporate companies seems to be rather resistant to relocation. The risk for relocation might be mitigated for exchanges trading domestic stocks and bonds; it is less clear whether this would also be possible for foreign stocks and bonds traded domestically and derivatives. The increased use of registration duties could help to reduce this problem.

Another possibility to reduce relocation incentives would be the use of differentiated tax rates. Tax rates could vary for different markets and products according to their mobility. This would decrease the potential relocation but also reduce tax revenue and increase administrative costs. Also, it would be difficult to decide which tax rates should be applied to which product and the differentiated tax rates might create distortions between the uses of different products. Also, if the FTT is seen as a corrective device, differentiated tax rates set according to the mobility of financial products might undermine this function.

Network externalities or agglomeration rents are often seen as reasons why relocation could be mitigated. The idea is that a very low tax rate would not lead to relocation given the advantage from concentration in one market place. This argument has its merits, but it is difficult to evaluate in practical terms. The effect could be very diverse for different product classes. Furthermore, while in the short-term agglomeration might be considered as an immobile asset of a region, this is not necessarily the case once new investment opportunities and market structures evolve.

The administrative costs of collecting a financial transactions tax could be relatively low. Data from the United Kingdom (UK), where a stamp duty is levied, show that the collection cost is only 0.21 pence per pound collected. The main reason is that the vast majority of UK company shares are held in the CREST settlement system which automatically debits the duty when shares are transferred. In contrast to that, for the income tax, the value is 1.24 pence and 0.76 pence for the corporation tax³⁸. However, this levy is a pure securities transactions tax, and does not tax a wider range of non-securities transactions, such as lending or depositing, for which administrative costs might be higher.

Legal aspects have to be considered as well. In relation to the original proposal by Tobin for a currency transactions tax, likely legal obstacles need to be taken into account, regarding its compatibility with free movement of capital and payments between Member States and between Member States and third countries.. These concerns might also apply to derivatives. Similarly, the compatibility of such a levy with Article XI of the General Agreement on Trade

³⁷ See Annex B for country experiences from UK, Sweden, Switzerland and Taiwan with transfer and transaction duties.

³⁸ See the Departmental Autumn Performance Report 2009 of HM Revenue & Customs available at: <http://www.official-documents.gov.uk/document/cm77/7774/7774.pdf>

in Services (GATS), which provides that WTO Members cannot apply any restrictions on international transfer and payments for current transactions relating to their specific commitments, would have to be further assessed³⁹. The introduction of a tax on financial transactions might also require changes to Council Directive 2008/7/EC⁴⁰.

5. FINANCIAL ACTIVITIES TAX

5.1. Policy debate and options for a FAT

As mentioned above, the Financial Activities Tax has gained attention following the IMF report to the G-20 in which three options for the FAT have been discussed: the addition-method FAT, the rent-taxing FAT and the risk-taxing FAT (corresponding to FAT1, FAT2 and FAT3 in the IMF report).

5.2. The economics of FAT

The rationale for the FAT is to target specifically financial sector activities, without intervening into the direct operation of financial markets. It can, however, be designed (rent-taxing FAT and risk-taxing FAT) in such a way as to improve market efficiency and discourage high risk taking.

a. Effects on financial markets

Although alternative designs exist, a FAT essentially targets the sum of profit and remuneration of a financial institution. The FAT is therefore not transaction-based, but relies instead on items of the financial statements of financial institutions (i.e. profit and remunerations).

The FAT should not be confused with the concept of a bank levy. For example, one form of the bank levy which is currently discussed would be levied on leverage. This is based on the idea that leverage is an indicator for risk exposure of an institution and its interconnectedness. The tax base of a bank levy is the balance sheet. The tax base for a FAT would be profit and remuneration and is taken from the profit and loss statement. The idea here is to tax the outcome of a company's activity in terms of profit and wages rather than levy a duty based on a structural indicator like leverage.

The FAT's effects on financial activities may take several aspects. First, in terms of its effects on market structures and risk-taking, the addition method FAT would not directly alter the markets structures where financial institutions are active since it taxes profits independently from how they are earned. In this sense, it does not discriminate between different products nor depend on the level of turnover, and hence brings no corrective mechanism per se. For all versions of the FAT, however, by making financial services more expensive, it would decrease the size of the financial sector.

³⁹ See also the Innovative financing at a global level - Commission Staff Working Document SEC(2010) 409, 1.4.2010 - on this issue.

⁴⁰ Council Directive 2008/7/EC of 12 February 2008 concerning indirect taxes on the raising of capital (OJ L 46, 21.2.2008, p. 11).

The rent-taxing FAT that tax rents only would not be distortive. If the financial sector earns economic rents and experiences a higher profitability due to its unique role in the economy, economic rents translate into higher before-tax company profits. If the policy goal is to reduce these rents in order to correct for the potentially distorted size and behaviour of the financial sector, a tax that falls directly on this profit is a solution.

The risk-taxing FAT attempts to tax excess return due to unduly risky activities. Such a tax would directly target the harmful effects of excessive risk-taking. This would be done via applying a relatively high tax rate (as to discourage risk) on returns above a defined level. This FAT therefore introduces some elements of progressivity. For capital, the interest rate on risk-free investments could be taken and increased by return on risk component. The latter is of course difficult to estimate. For wages, the average wages in other sectors could serve as a proxy. This would however not account for structural differences in sectors which might lead to different wage structures in addition to potentially untaxed rents. In addition, this FAT cannot distinguish between high returns due to unduly risky behaviour or due to skills and efforts. This makes the threshold somewhat arbitrary.

Second, all versions of the FAT could be designed to be neutral vis-à-vis financing and investment decisions, and hence not distort the activities of the financial sector while still reducing its size. This can be achieved by the application of either an Allowance for Corporate Equity (ACE) or a definition of profit which would include both real transactions and financial transactions.

Third, any version of the FAT could lead to differences in treatment between financial institutions subject to such a tax and quasi-financial institutions outside its scope. The implementation of a FAT should therefore cover as large as possible range of financial institutions. The whole financial sector indeed includes banks, credit card companies, insurance companies, consumer finance companies, stock brokerages, investment funds and some government sponsored enterprises.

Fourth, all versions of the FAT can be seen as tax on the profits from net transactions and other financial sector business. This is an important difference compared to the FTT which would tax gross transactions and have a cumulative effect. As such the tax take is independent of the risk characteristics of the product traded and instead a function of the number of times the product is traded.

Fifth, in the technical design of the risk- and rent-taxing FAT important parameters deriving from "normal" profit rates or wage levels would need to be determined, which illustrates the potential practical complexity of such taxes.

Finally, given the ongoing regulatory work, the assessment of the possible introduction of a FAT would have to take into account the cumulative impact of the regulatory plus the tax changes.

b. Tax Incidence – Would the Financial Sector carry the burden?

There is no empirical evidence on the real incidence of a FAT. However, the incidence of the addition method FAT when all remuneration and cash-flow profit is taxed could possibly fall on the consumers of financial services. Indeed, in case the tax is shifted to the customer and

since there is no deduction for business consumers the tax burden could also partly fall on all users of financial services.

Both the rent-taxing and the risk-taxing FAT provide less incentive to shift the tax to customers since the profit maximization condition would be unaffected and therefore marginal investments remain undistorted.

c. Revenue estimates

Turning to revenues, the potential of the FAT depends on the type of FAT that is chosen and, obviously, on the assumptions. An appropriate estimation of revenues would require comprehensive firm-level data as with aggregate data profits of some companies are compensated by losses of others, blurring the picture⁴¹.

Still, using aggregate data and specific assumptions, the IMF reports that the tax base for the addition method FAT varies from 2.5% of GDP in Sweden to 8.4% of GDP in Ireland and even 23.2% of GDP in Luxembourg. The sample's GDP-weighted average is 4.14% of GDP. For the Rent-taxing FAT and the Risk-taxing FAT, the GDP-weighted average would be 1.78% and 0.79% of GDP.

Hence, applying a low FAT rate of 5% and extrapolating the results from the sample of 15 Member States collected by the IMF (2010) – and representing 91% of EU27 GDP – to the EU27 for the three methods provide broad orders of magnitude for tax revenues of respectively EUR 25.9 billion, EUR 11.1 billion and EUR 4.9 billion. Table (7) gives an overview of the country values.

⁴¹ Profits are defined as gross operating surplus and mixed income in the financial intermediation sector.

Table (7): Revenue estimates for the various forms of FAT (based on 2008 GDPs), tax rate 5%

Member States	Addition method FAT			Rent-taxing FAT			Risk-taxing FAT		
	Tax base % GDP	Tax revenue % GDP	Tax revenue mio EUR	Tax base % GDP	Tax revenue % GDP	Tax revenue mio EUR	Tax base % GDP	Tax revenue % GDP	Tax revenue mio EUR
BE	4.2	0.2	724	1.8	0.1	310	1.5	0.1	259
BG	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
CZ	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
DK	4.0	0.2	466	1.8	0.1	210	0.7	0.0	82
DE	3.6	0.2	4,492	1.5	0.1	1,872	0.5	0.0	624
EE	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
IE	8.4	0.4	764	5.7	0.3	518	1.8	0.1	164
EL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
ES	3.5	0.2	1,905	1.7	0.1	925	0.9	0.0	490
FR	3.3	0.2	3,215	0.9	0.0	877	0.8	0.0	779
IT	3.6	0.2	2,822	1.6	0.1	1,254	0.4	0.0	314
CY	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LV	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
LU	23.2	1.2	456	15.3	0.8	301	5.7	0.3	112
HU	3.6	0.2	190	2.0	0.1	106	0.9	0.0	47
MT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
NL	4.9	0.2	1,460	2.0	0.1	596	0.6	0.0	179
OE	4.0	0.2	564	1.7	0.1	240	1.8	0.1	254
PL	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
PT	4.8	0.2	413	2.6	0.1	223	0.5	0.0	43
RO	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
SI	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
SK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FI	1.9	0.1	175	0.9	0.0	83	0.2	0.0	18
SE	2.5	0.1	418	0.9	0.0	150	0.7	0.0	117
UK	6.1	0.3	5,537	2.7	0.1	2,451	1.1	0.1	998
Sample	4.14	0.21	23,600.9	1.78	0.09	10,116.1	0.79	0.04	4,479.4
EU27			25,920.7			11,110.5			4,919.7

Source: IMF (2010), *Financial Sector taxation. The IMF's Report to the G-20 and background material*. Editors: S. Claessens, M. Keen and C. Pazarbasioglu. and own calculations. The estimates assume no behavioural response. For the rent-taxing and the risk-taxing FAT, the IMF takes 40% of the wage differential between the top 25% earners in the financial sector and the top 25% earners in other sectors. This 'surplus' is 12% of wage costs. For the risk-taxing FAT, the benchmark for the return on average equity above which profit would be taxed is 15%. See IMF (2010) for other assumptions and details. Note that the IMF applies an R+F base by subtracting capital formation from profit. The EU27 figures are retrieved by taking the GDP-weighted average values of the sample for the tax base and applying them to EU27 GDP for 2008.

For the 22 developed economies – representing about 62% of world GDP – considered in the IMF report to the G-20, a 5% rate of the addition-method FAT would create revenue corresponding to an arithmetic average of 0.28% of GDP.⁴² Using the country level estimates for the share in GDP to calculate absolute figures, this would translate into total revenue for the 22 countries of roughly EUR 75 billion for the addition-method FAT⁴³.

⁴² IMF (2010). *Financial Sector taxation. The IMF's Report to the G-20 and background material*. Eds. S. Claessens, M. Keen and C. Pazarbasioglu.

⁴³ The revenue for other FAT versions would be EUR 35 billion for the rent-taxing FAT and EUR 10 billion for the risk-taxing FAT.

In terms of their geographical distribution, the potential tax revenues would - by and large - mirror the share of Member States in the activities of the financial sector (which is more diversified than their share in trading places).

Figures (2), (3) and (4) respectively present the distribution for the addition-method, rent-taxing and risk-taxing FAT. For Member States for which data is missing in table (7) are assumed to raise tax revenues in percentage of GDP in the same proportion as the sample's GDP average. The sign (*) indicates the countries concerned.

Figure (2): Share in tax revenue of EU Member States (Addition-method FAT)

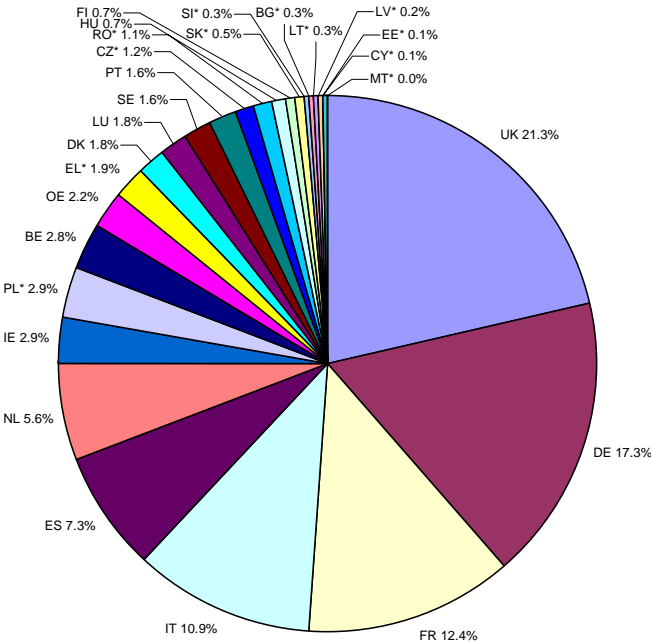


Figure (3): Share in tax revenue of EU Member States (Rent-taxing FAT)

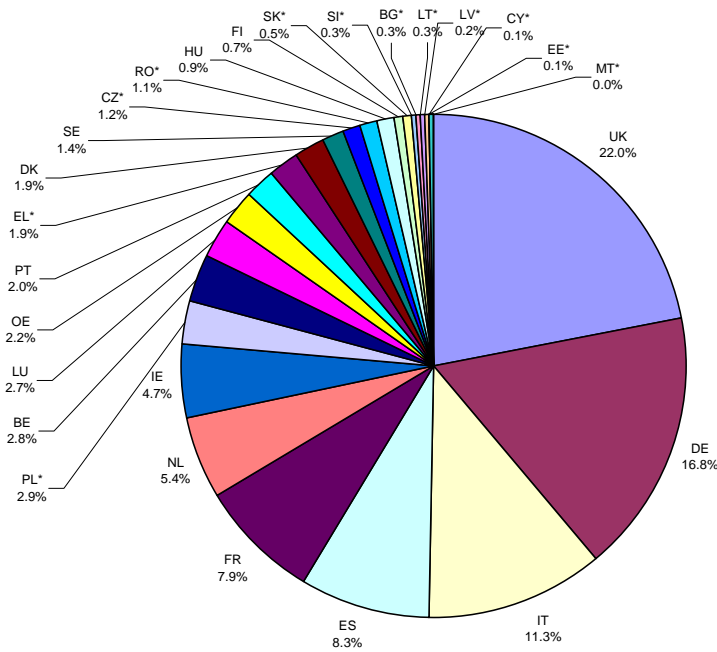
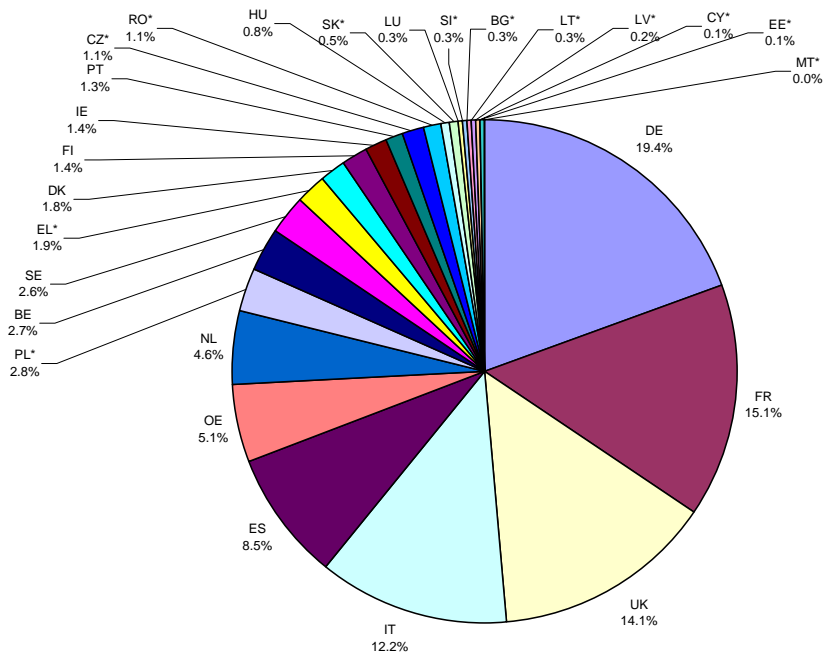


Figure (4): Share in tax revenue of EU Member States (Risk-taxing FAT)



5.3. Potential for unilateral introduction

Because it relies on items easily identified, a FAT is theoretically easy to introduce. The easiest version would be the addition method FAT. The other two versions require the determination of some normal or risk adjusted return and wage payments which might create practical problems. A FAT could also add to the existing incentives to shift profit via relocating profit or remuneration that derive from differences in current CIT and PIT systems. The unilateral introduction of a FAT triggers relocation and competitive disadvantage risks as in the case of the FTT. Nevertheless, given the nature of the base and the need for financial companies to generally operate for their basic activities where consumers reside, the risk of relocation can be assumed to be lower than in the case of the FTT. Technical developments may increase the mobility of the financial sector. For example, in the field of retail banking the development of internet banking may provide opportunities for avoidance.

Another important issue is the inequality of treatment across sectors that a FAT would create. This issue may conflict with legislation or general tax practices in some countries. On the other hand, a FAT could arguably also be seen as a tax surcharge that aims at correcting inequalities of treatment across sectors (e.g. VAT exemption).

In principle, because it relies on existing items of the balance sheet, both the technical difficulties and the administrative costs of implementing and collecting the FAT could be limited. However, given the different accounting rules in Member States a creation of a coherent framework might be difficult.

Finally, in the context of the European Union, the compatibility with the VAT directive, in light of the existing jurisprudence (e.g. Case C-475/03) would need to be verified, given that its base proxies value added. For the same reason, the FAT would require several adjustments to make it interact with the invoice-credit VAT. These adjustments, discussed by the IMF, include the absence of input VAT crediting against the FAT and vice versa, border adjustments in the case of the addition method FAT, a mimicking of zero-rating for operations with clients outside the EU, and to mitigate the absence of crediting, a FAT rate that is lower than the standard VAT rate. These are non-trivial technical issues.

ANNEX A: TAXATION OF FINANCIAL TRANSACTIONS IN THE EU

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
Austria (12/7/2010)	1%	Direct contributions of capital to an Austrian company	-	-	-	-
Belgium (16/6/2010)	-	-	EUR 1.7 per thousand euro worth of securities (maximum of EUR 500) 0.6%	Shares, bonds and other securities, whether traded on the Stock Exchange or not Physical delivery of bearer securities. (Trade in short-term commercial papers is not taxable. Tax not applicable to securities issued upon formation of a company or an investment fund.)	0.15%	Stamp duty for documents concerning bank transactions
Bulgaria (5/7/2010)	-	-	-	Transfer of shares of a limited liability company and the transfer of an existing business incur a notary fee	-	A notary fee is due on the transfer of shares of a limited liability company and the transfer of an existing business
Cyprus (13/6/2010)	- EUR 102.52 plus 0.6% on the nominal value of the share capital; - EUR 17.09 allotment fees for the issue of the shares.	Capital duties and allotment fees are payable on the authorized share capital and on the issue price of the shares	-	-	0.15%	Transactions in, or transactions announced in, the Cyprus Stock Exchange
Czech Republic (12/7/2010)	-	-	-	-	-	Administration fees are payable on certain services rendered by various government bodies
Denmark (16/6/2010)	-	-	-	-	-	-
Estonia	-	-	-	-	-	-

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
(16/5/2010)						
Finland (1/7/2010)	-	-	1.6%	On the sales price, but only if the transfer is not made through the stock exchange. No transfer tax is due if shares of a foreign company are sold or if both the seller and the purchaser are non-residents. However, this exemption does not apply if one of the parties to the transfer is a Finnish branch of a foreign bank or a foreign investment company. The tax is always payable on transfers between non-residents if the transferred shares are shares in a Finnish housing or real estate company.		Stamp duty is levied on certain documents and in connection with various legal transactions, such as promissory notes, bills of exchange and certain other certificates, and mortgage certificates.
France (15/7/2010)	-	In general, there is no capital duty or similar duty on the formation and expansion of capital of companies.	3%, with a maximum of EUR 5,000 5%	For shares; only if the transfer is made by written deed executed in France The transfer of shares in non-quoted SAs whose assets consist principally of immovable property and the transfer of shares in SARLs and interests or quotas in legal entities whose capital is not divided into shares (e.g. partnerships). The same rate applies to a purchase of an existing unincorporated business as a going concern. The transfer of shares or quotas in a foreign legal entity is exempt from registration duty in France, unless made by a written deed executed in France.	-	-

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
Germany (1/7/2010)	-	-	-	-		Minor fees are due upon registration of transactions in the Commercial Register. This concerns mainly the formation of a company, a change in the capital and reorganizations.
Greece (10/5/2010)	1%	<ul style="list-style-type: none"> - Any kind of contribution to the share capital on the formation of a company. - The increase in a company's capital, unless its the result of the compulsory revaluation of immovable property or of the capitalization of profits, reserves or provisions other than the share premium reserve. - The contribution of assets or working capital by a non-resident company to its branch in Greece, if the non-resident company has its seat or permanent establishment outside the EU. - Profit-sharing loans and loans used for a capital increase are immediately subject to the capital duty except when shares are issued. 	0.15%	On the proceeds from the sale of shares listed on the Athens Stock Exchange or on any other recognized stock exchange in the world.	2.4%	On the issuance of loans between businesses or between individuals and companies and payment of interest on such loans. Loans granted by banks operating in Greece or abroad and interest payments on such loans are exempt

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
						usually 7% (15% for agricultural land) of the value of the property as indicated in the transfer deed.
Latvia (21/6/2010)	-	-	-	-	-	-
Lithuania (28/6/2010)	-	-	-	-	-	-
Luxembourg (12/7/2010)	-	abolished 01/01/2009	-	-	-	-
Malta (8/7/2010)	-	-	-	-	2%	Stamp duty on transfer of marketable securities (except when listed on the Malta Stock Exchange and inter vivos transfers of foreign marketable securities to persons resident in Malta effected through a local bank or a person holding an investment services licence. A nominal registration fee is payable upon registration of a company, depending on the amount of the authorized share capital.
					EUR 210 to 2,250	
Netherlands (1/7/2010)	-	-	6%	The acquisition of shares in a real estate company (if the acquisition gives the acquirer at least one third of the subscribed share capital)	-	-
Poland (7/7/2010)	0.5%	Initial capital contribution to a newly registered company and on the transfer of an effective place of management or registered office from a non-EU country to Poland	1%	Shares, bonds and other securities if the underlying rights are exercised in Poland	-	-

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
Portugal (12/7/2010)	See Stamp duties		-	-	0.4%	<p>A capital duty (in the form of stamp duty) is imposed on capital contributions to capital companies upon incorporation or any subsequent capital or equity increase. The duty is also levied on the transfer from a non-EU state to Portugal of the place of effective management and/or legal seat of a capital company with its legal seat and/or place of effective management in that third state.</p> <p>(Exemptions, for example, in respect of:</p> <ul style="list-style-type: none"> - capital contributions, upon incorporation or capital increases, through the contribution of all the assets and liabilities of the contributor or of one or more branches of activity; - incorporation and capital increases of venture capital companies and holding companies (SGPS); - the change of the corporate purpose of a capital company; - capital increases paid in

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
						cash (following the ECJ decision in Optimus, C-366/05)).
Slovak Republic (24/6/2010)	-	-	-	-	-	-
Slovenia (18/6/2010)	-	-	-	-	-	-
Spain (1/6/2010)	1%	On the contribution of capital to a company or a branch upon the formation or a subsequent increase of the subscribed capital, and on the liquidation and immigration of companies to Spain.		Normally not, except when transfer of unquoted shares of SAs and preemptive rights to subscription of such shares by the intervention of a notary or a stockbroker if the transfer leads to the acquisition of control over a non-listed company in which 50% or more of its assets consist of Spanish-situs immovable property.	-	-
Sweden (25/5/2010)	-	-	-	-	-	-
United Kingdom (14/6/2010)	-	-	-	-	0.5%	A stamp duty reserve tax (SDRT) is levied on certain transfers of shares and securities.

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
Non-EU countries						
Switzerland (1/6/2010)	1%	A 1% federal stamp duty (Emissionsabgabe) is payable by resident companies (AGs, GmbHs, KAGs and cooperatives) upon the issuance of shares or other participation rights and the increase in their nominal value to the extent that the share capital exceeds CHF 1 million. The taxable amount is equal to the total amount contributed to the company or the value of the shares issued, whichever is higher. Qualifying venture capital companies are exempt from the duty. In addition, certain types of transactions are exempt, including: - participations taken or	0.15% (Domestic securities), 0.3% (Foreign securities)	A transfer tax (Umsatzabgabe) is levied on the transfer of domestic or foreign securities where one of the parties is a Swiss security broker. Swiss brokers include banks and bank-linked financial institutions as defined by Swiss banking law. In addition, companies that own taxable securities of a book value in excess of CHF 10 million qualify as security brokers. A broker who acts as a party to the transaction must pay one half of the transfer tax for himself and another half on behalf of each party who is not a broker. If the broker merely acts as an intermediary, he is only required to pay one half of the transfer tax on behalf of each party who is not a broker. If a Swiss security broker deals at a foreign		

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
		<p>increased in connection with mergers, changes of legal structure, spin-offs or transfers of corporate seats from abroad to Switzerland;</p> <ul style="list-style-type: none"> - participations in cooperatives to the extent they do not exceed CHF 1 million in total; and - participations formed by the use of share premium reserves of AGs if the company can prove a previous payment of the duty for these contributions. <p>If at a later moment the requirements for an exemption no longer exist, stamp duty becomes due on the remaining part of the existing participation right. No stamp duty is due upon formation and expansion of capital by partnerships, associations and foundations.</p>		<p>stock exchange in securities that are subject to Swiss transfer tax, the part of the tax allocated to the other party to the transaction is not levied.</p> <p>The taxable base is equal to the consideration paid; if there is no consideration, the taxable base is the fair market value of the security. The duty is levied at a rate of 0.15% for domestic securities and 0.3% for foreign securities.</p> <p>Eurobonds, other bonds denominated in a foreign currency and the trading stock of professional security brokers are exempt. Certain types of transactions are exempt:</p> <ul style="list-style-type: none"> - initial purchase of shares in resident companies, including those purchased through a bank or a holding company (subject to stamp duty upon the issuance); - the transfer of an option to acquire shares; - the redemption of securities for cancellation; <p>- the initial purchase of bonds issued by foreign debtors and shares in foreign companies not denominated in Swiss currency;</p> <ul style="list-style-type: none"> - the transfer of foreign money market papers; and - the transfer through security brokers of foreign bonds whether in Swiss or foreign currency between two foreign parties. 		

Country (date of last update)	Capital duty (on the creation of, or increase in, share capital)		Transfer tax		Stamp or other duty	
	Tax rate	Tax base	Tax rate	Tax base	Tax rate	Tax base
Taiwan (1/4/2010)			0.3% of the transaction price for a transaction in shares issued by a company; and 0.1% of the transaction price for a transaction in corporate bonds and other government approved marketable securities such as certificates issued by securities investment trusts. Since 1998, a stock index futures transaction tax is imposed on both parties to the transaction based on the contracted amount. The current transaction tax is levied per transaction at a rate of not less than 0.01% and not more than 0.06%, based on the value of the futures contract.	Securities transactions tax is levied on all securities on the stock exchange, except government bonds. Securities transaction tax on bank debentures and corporate bonds is not imposed from 1 January 2010 to 31 December 2016.		

Source: IBFD "European tax survey" database. Date: 22/07/2010

ANNEX B: COUNTRY EXPERIENCE

B.1 TRANSFER TAXES AND STAMP DUTIES

United Kingdom

The UK stamp duty on transfers of securities consists of two instruments: (1) **Stamp duty** (charged on instruments of transfer) and (2) **Stamp Duty Reserve Tax (SDRT)** (charged on underlying agreements to transfer securities where an instrument is not executed).

The two go hand in hand when considering transaction taxes on shares. **Stamp Duties** in the UK are collected on documents used to effect the sale and transfer of ownership in shares and other securities of UK-based companies. In order to collect duties on transactions carried out through electronic share dealing systems, the **Stamp Duty Reserve Tax (SDRT)** was introduced in 1986. Stamp duties are levied on the underlying value of the transferred good. The standard rate is currently 0.5%.

Revenue from duties on the transfer stocks and shares also augmented over the last decade. After the economic downturn in 2001-02 revenue declined for two years in a row. From 2004-05 onwards revenue steadily increased despite the fact that the tax rate remained unchanged at 0.5% in this period. There are three main reasons for this development. Firstly, share prices increased significantly in recent years as a consequence of the economic boom. Secondly, volume of traded shares also increased since the number of incorporated companies increased. Lastly, turnover also augmented since shares have become important products for medium- and short-term investments. However, revenue declined also for this category in 2008-09. The reasons are the reduction in transactions volumes as well as significantly lower stock prices due to the financial crisis. This observation suggests that revenue from stamp duties is procyclical with economic activity. In fact, revenue from stamp duties on transfers of financial assets was more than 30% lower in 2008-09 compared to 2007-08.

The SDRT taxes transactions in shares where no instrument of transfer is executed and which are therefore outside the scope of the "standard" Stamp Duty. In this sense, it is a transaction tax, levied on agreements to transfer chargeable securities while the "standard" Stamp Duty is charged upon documents. SDRT accounts for the majority of revenue collected on share transactions effected through the UK's Exchanges. On average almost 90% of revenues actually stem from the SDRT. Table (B.1) shows the revenue data for both types in the second and third column⁴⁴. The fourth column shows the total revenue from the two sources. The peak is in 2000-01 just before the end of the Internet bubble. Columns 5 and 6 show the tax revenue in relation to total tax revenue and GDP. The Stamp Duty was on average about 0.7% of total tax revenue. In terms of GDP and total tax revenue the highest values have been reached during the boom years at the end of the last century, notably in 2000-01. For 2008-09 the value is back to the level of the mid 1990ies which is around 0.2% of GDP.

⁴⁴ The split between the two levies is only available from 2001 onwards. Note that small differences between values single and sums occur due to rounding when converting revenues in Sterling Pound to Euro.

Both, SDRT and standard Stamp Duty are levied on share transactions in UK incorporated companies currently taxed at 0.5% of the purchase price of shares. It is charged whether the transaction takes place in the UK or overseas, and whether either party is resident of the UK or not. Securities issued by companies overseas are not taxed. This means that the tax is paid by foreign and UK-based investors who invest in UK incorporated companies. To put it differently, the tax is connected to the location of headquarters.

Table (B.1): Revenue from stamp duties on stocks and shares and other liable securities in the UK

Year	SDRT	Standard Stamp duty	Stamp Duties Total Revenue	over Total Tax Revenue	over GDP	
1995-96	n.a.	n.a.	n.a.	1,810	0.59	0.20
1996-97	n.a.	n.a.	n.a.	1,966	0.60	0.20
1997-98	n.a.	n.a.	n.a.	3,033	0.73	0.25
1998-99	n.a.	n.a.	n.a.	3,696	0.79	0.28
1999-00	n.a.	n.a.	n.a.	5,617	1.10	0.40
2000-01	n.a.	n.a.	n.a.	7,383	1.26	0.46
2001-02	4,218	367	4,586	0.77	0.28	
2002-03	3,669	455	4,124	0.69	0.24	
2003-04	3,280	418	3,698	0.65	0.22	
2004-05	3,454	548	4,001	0.64	0.23	
2005-06	4,105	961	5,067	0.77	0.28	
2006-07	4,767	745	5,511	0.77	0.28	
2007-08	5,372	716	6,091	0.82	0.30	
2008-09	3,673	349	4,022	n.a.	0.22	
				in m Euro	in %	in %

Source: HM Revenue and Customs and own calculations

Given the existence of the tax, one should observe that investors discount higher future transaction costs when trading shares. These costs should be capitalized in lower share prices. In fact, empirical studies show that the stamp duty influences the share prices negatively. More frequently traded shares are stronger affected than low-turnover shares. Therefore the tax revenue capitalizes at least to some extent in lower current share prices. For firms which rely on equity as marginal source of finance this may increase capital costs since the issue price of new shares would be lower than without the tax. Currently, there are no estimates on the effects on trading volumes and price volatility of the stamp duties in the UK. Given results from empirical studies on the effect of transaction costs on trade volumes it is likely that Stamp Duties reduce trade volumes significantly. Whether or not this increases price volatility is disputed, however, more recent studies tend to find a positive correlation between trade volumes and price volatility.

While it is possible to avoid stamp duty by executing and retaining the instrument outside the UK, in practice the need to get the company's share register changed to show the name of the new owner, combined with the restriction on unstamped instruments being given in evidence or used for any purpose whatever, means that most instruments of transfer are presented for stamping.

Stamp duty reserve tax is difficult to avoid because the vast majority of UK company shares are held in the CREST settlement system which automatically debits SDRT when they are transferred. Nevertheless, there are two mechanisms to avoid SDRT legally:

American depositary receipts (ADRs)

Many UK companies have ADR programmes which enable them to market themselves in the US. Shares are issued to a US depositary bank which issues "American depositary receipts" (ADRs) in respect of them. It is the receipts rather than the underlying shares that are traded on the US markets. Such trading is currently free from standard 0.5% SDRT transfer charges, but, to compensate, there is a charge instead (only paid once at the higher rate of 1.5%) when the shares are issued to the depositary bank. Placing shares into an ADR system is not regarded as avoidance.

Exchange Traded Fund (ETF)

An overseas collective investment scheme that lists on a UK exchange (ETF) currently qualifies for exemption from SDRT provided that it is not centrally managed and controlled in the UK or has a UK share register. The exemption was introduced in 2007 to encourage overseas ETFs to list in the UK and use of these schemes is thus legitimate. However, owners of an ETF share do not legally own the shares in the fund. If investors want to have voting rights the ETF cannot be used to avoid stamp duty.

Sweden

In the 1980s Sweden experienced strong growth of the financial sector⁴⁵. This was accompanied by significant increases in the salaries of professionals in this sector. It was argued that the financial sector's contribution to the economy and the society was small compared to the resources it used. Furthermore, excessive financial transactions were seen as destabilizing the economy and as promoting disproportionate wage differentials between sectors. The latter point was politically of great importance. Despite the resistance of the Ministry of Finance, Sweden introduced a 50 basis points tax on the purchase or sale of equity securities in January 1984. A round trip transaction (purchase and sale) resulted therefore in a 100 basis points tax. The tax applied to all equity security trades in Sweden using local brokerage services as well as to stock options. The fact that only local brokerage services were taxed is in the literature seen as the main design problem of the Swedish system. Avoiding the tax only required using foreign broker services. In July 1986, the tax rate was increased to 100 basis points. In 1987, the tax base was extended and half the normal rate was also applied to transactions between dealers.

In January 1989, the tax base was widened again and a tax on fixed-income securities was introduced. The tax rate was considerably lower than on equities, as low as 0.2 basis points for a security with a maturity of 90 days or less. On a bond with a maturity of five years or more, the tax was three basis points. Only 15 months later, on 15 April 1990, the tax on fixed-income securities was abolished. In January 1991 the rates on the remaining taxes were cut by half and by the end of the year, they were also abolished completely.

There are different reasons for the abolishment of the tax. First of all, the revenues from the taxes were disappointing. The revenues from the tax on fixed-income securities were expected

⁴⁵ The description of the Swedish experience is based on Umlauf (1993) and Campbell and Froot (1993). Sweden levied transaction taxes on stock exchange and stock options, fixed interest securities and the connected derivatives.

to amount to 1,500 million Swedish kroner per year, but the average was only around 50 million a year. Furthermore, since trading volumes fell, the capital gains tax became less and less applicable and revenue declined. The increase in revenue from equity transaction taxes was almost entirely offset by this reduction in capital gains taxes. The net budget effect was accordingly close to zero. An additional reason for the decline in revenue from capital gains taxes was the decline in share prices that accompanied the introduction of the transaction tax. The day the tax was announced, share prices fell by 2.2%. Taking into account possible trading based on insider information in the weeks before the official announcement, the price decline is estimated to have amounted to 5.35%. These declines were in line with the net present value of tax payments on future trades. Investors discounted the future payments and prices for equity decreased driving up capital costs accordingly.

Next to the low revenue generated from the tax, relocation became a serious problem in Sweden. 60% of the trading volume of the eleven most actively traded Swedish share classes moved to the UK after the announcement in 1986 that the tax rate would double. 30% of all Swedish equity trading moved offshore. By 1990, more than 50% of all Swedish trading had moved to London. Foreign investors reacted to the tax by moving their trading offshore while domestic investors reacted by reducing the number of their equity trades.

Even though the tax on fixed-income securities was much lower than that on equities, the impact on the traded volume was much more dramatic. During the first week after the introduction of the tax, the volume of bond trading fell by 85%, even though the tax rate on five-year bonds was only three basis points. The volume of futures trading fell by 98% and the options trading market disappeared. Trading in money market securities, which faced a tax as low as 0.2 basis points, fell by 20%. This reaction was due in large part to the existence of a wide variety of non-taxed substitutes. Once the taxes were eliminated, trading volumes returned and grew substantially in the 1990s.

Switzerland

A prominent example of a transfer tax outside the EU is Switzerland. A transfer tax (*Umsatzabgabe*) is levied on the transfer of domestic or foreign securities where one of the parties is a Swiss security broker. Swiss brokers include banks and bank-linked financial institutions as defined by Swiss banking law. In addition, companies that own taxable securities of a book value in excess of CHF 10 million qualify as security brokers.

A broker who acts as a party to the transaction must pay one half of the transfer tax for himself and another half on behalf of each party who is not a broker. If the broker merely acts as an intermediary, he is only required to pay one half of the transfer tax on behalf of each party who is not a broker. If a Swiss security broker deals at a foreign stock exchange in securities that are subject to Swiss transfer tax, the part of the tax allocated to the other party to the transaction is not levied.

The taxable base is equal to the consideration paid; if there is no consideration, the taxable base is the fair market value of the security. The duty is levied at a rate of 0.15% for domestic securities and 0.3% for foreign securities.

Eurobonds, other bonds denominated in a foreign currency and the trading stock of professional security brokers are exempt. Certain types of transactions are exempt:

- initial purchase of shares in resident companies, including those purchased through a bank or a holding company (subject to stamp duty upon the issuance);
- the transfer of an option to acquire shares;
- the redemption of securities for cancellation;
- the initial purchase of bonds issued by foreign debtors and shares in foreign companies not denominated in Swiss currency;
- the transfer of foreign money market papers; and
- the transfer through security brokers of foreign bonds whether in Swiss or foreign currency between two foreign parties.

The revenue of the Swiss transfer tax was CHF 1.9 billion CHF in 2007. This corresponds to 0.37% of GDP.

Taiwan

An example for a country with transactions taxes outside Europe is Taiwan. The securities transaction tax is imposed upon gross sales price of securities transferred and the tax rates are 0.3% for share certificates issued by companies and 0.1% for corporate bonds or any securities offered to the public which have been duly approved by the government. However, trading of corporate bonds and financial bonds issued by Taiwanese issuers or companies are temporarily exempt from STT beginning 1st January 2010. The Taiwanese government argued this "would enliven the bond market and enhance the international competitiveness of Taiwan's enterprises"⁴⁶. The legal taxpayer is the seller of the securities and tax is collected by the broker or sales agent or the transferee in cases of direct transactions.

Since 1998, Taiwan also levies a stock index futures transaction tax is imposed on both parties to the transaction based on the contracted amount. The current transaction tax is levied per transaction at a rate of not less than 0.01% and not more than 0.06%, based on the value of the futures contract. Revenue from the securities transaction tax and the futures transaction tax was about EUR 2.4 billion in 2009. The major part of this revenue came from the taxation of bonds and stocks (96.5%). The taxation of stock index future shares was 3.5%. In total, this corresponds to 0.8% in terms of GDP.

⁴⁶ See <http://www.ey.gov.tw/ct.asp?xItem=65822&ctNode=1334&mp=11> for the press release.

B.2 MEMBER STATES' EXPERIENCES WITH FAT ELEMENTS⁴⁷

Denmark

Denmark introduced in 1990 a duty on wage and salary costs (*Lønsumsafgift*⁴⁸) for businesses engaged in certain activities that are exempted from VAT. The tax base is generally the sum of labour costs and taxable profit⁴⁹. For several sectors, including financial activities, the tax base is defined as labour costs plus a supplement of 90%.

The general tax rate is 3.08%. Specific rates apply to various sectors. For financial services, the rate is 5.08% of labour costs plus an additional 4.5% of 90% of labour costs (i.e. an effective rate of 9.13% (5.08+ 90%*4.5%). This rate will be increased to 10.5% but this measure will not be effective before 2013.

In 2008, the annual revenues amounted to DKK 4,668.7 million (i.e. about EUR 650 million) or 0.26% of GDP. About 70% of this amount would be raised from the financial sector (IMF, 2010).

France

France introduced in 1968 a payroll tax (*taxe sur les salaires*⁵⁰) which is levied on employers who are not liable for VAT or who have not been liable for VAT on at least 90% of their turnover during the previous year. Those include bank and insurance companies. The tax base is defined as gross remunerations, prior to the deduction of employee's national insurance contribution, including benefits in kind. The measure is therefore not a FAT *per se* but the underlying concept is the same.

For employers who are partly liable to VAT, the payroll tax is due in proportion of the exemption. Remunerations paid by public administrations are exempted as long as this does not create distortions in competition. Remunerations paid to apprentices are fully or partially exempted, depending on the number of employees. A limited number of remunerations are also exempted. Those are mainly paid in the context of training of workers and incentives to hire unemployed. Businesses with a turnover that does not exceed a defined threshold (EUR 80,000 for sales of goods and EUR 32,000 for services) are also exempted.

The tax rate is 4.25%. It is increased to 8.50% for individual annual pay between EUR 7,491 and EUR 14,960 and to 13.60% for individual annual pay above EUR 14,960. There is a reduced rate of 2.95% for overseas territories. The tax is not due if its annual total amount is under EUR 840. If the tax due is between EUR 840 and EUR 1,680, the tax is reduced by an amount representing $\frac{3}{4}$ of the difference between EUR 1,680 and the tax originally due. Non-profit associations are eligible to a tax credit of EUR 5,890 per year.

The payroll tax is deductible from the corporate income tax or the personal income tax.

⁴⁷ The information in this section is retrieved from the Taxes in Europe database.

⁴⁸ Covered by the Law on tax on labour costs (lov om afgift af lønsum mv.).

⁴⁹ In case of losses, these are deducted from the labour costs. The system is therefore symmetric.

⁵⁰ Covered by articles 231 to 231 bis R and 1679, 1679A and 1679 Bis of the General Tax Code.

In 2008, the annual tax revenues amounted to EUR 11.3 billion. This is about 0.55% of GDP. About 85% of this amount would be levied from financial institutions (IMF, 2010).

Italy

Italy introduced in 1997 a regional tax on productive activities (*Imposta Regionale sulle Attività Produttive – IRAP*)⁵¹. This regional tax is applied to taxpayers engaged in commercial business. The tax base is the value of the net production, which is accounting profit plus most remuneration. Several exemptions apply for unit trusts, pension funds, European Economic Interest Groupings, and some small taxpayers. Deductions are allowed for contributions for labour insurances, expenses related to junior clerks, disable persons and R&D. In addition, there is a EUR 1,850 deduction for each employee (with a maximum of five) to enterprises with income below EUR 400,000 and certain regions apply a EUR 9,200 deduction for each employee. The base is allocated across regions based on the number of workers in each region.

The basic rate is 3.90% and it can be increased by regions up to 1 percentage point. However, since 2008, the rates increased by regions must be multiplied by a coefficient of 0.9176. In 2008, the annual tax revenues amounted to EUR 36 billion or 2.3% of GDP.

⁵¹ Covered by D. Lg. N446 of 15 December 1997 and L n° 244/2007.