



EUROPEAN COMMISSION

Brussels, 28.9.2011
SEC(2011) 1102 final

Vol. 6

COMMISSION STAFF WORKING PAPER

IMPACT ASSESSMENT

Accompanying the document

Proposal for a Council Directive

on a common system of financial transaction tax and amending Directive 2008/7/EC

{COM(2011) 594 final}
{SEC(2011) 1103 final}

ANNEX 5

IS THE FINANCIAL SECTOR UNDER-TAXED? EMPIRICAL PART

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 services¹.

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 2/3 of all financial services are margin based which makes the implementation of the invoice-credit VAT system very difficult in this respect.² In practice however this difficulty seems to be surmountable – for instance in Germany when the granting of loans is subject to VAT under the option to tax, an acceptable methodology seems to have been found to tax these margin-based operations.

The extent to which applying VAT to the financial sector would raise additional tax revenues and – consequently – the extent to which the exemption constitutes a tax advantage 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'. While estimates by Genser and Winker (1997) for Germany (DM 7 billion for 1994) and Huizinga (2002) for the EU-15 (EUR 12 billion for 1998) suggest that there might be a sizeable tax advantage, arguments are also put forward that claim that irrecoverable VAT is the largest tax burden for the sector.

This Annex presents a new estimate of the magnitude of the problem. The calculations are based on European Sector Accounts (ESA) data on the consumption of financial services by sectors. The data are provided by Eurostat for the period from 2000 to 2009. However, this data (Financial intermediation services indirectly measured, FISIM) is restricted to financial intermediation. Other tax exempt financial services are not covered in these figures. The share of FISIM in the total gross value added of the financial sector (S12) was around 35% in the EU-27 in 2009. The estimations below are based on methodologies applied by Huizinga (2002) and De la FERIA and Lockwood (2010).

For the calculations ESA variables and sectors listed in table (1) have been used. In addition to this the variable 'intermediate consumption' from national Input-Output (IO) tables as provided by Eurostat was used in addition to variable P2. The reason is that the

¹ 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.

² The problem of VAT on financial services is described in more detail in Kerrigan (2008) as well as in Mirrlees et al. (2010), chapter 8.

IO-tables offer more detailed data for this variable. While in ESA the financial sector (S12) is the aggregate of financial intermediation, insurance and auxiliary financial services, the IO tables have separate values for the three segments which allows a better estimation basis of the share of irrecoverable VAT.

In order to calculate the irrecoverable VAT two other sources have been consulted. Firstly, the VAT revenue ratio (VRR) from the Consumption Tax Trends published by the OECD (2011). This figure was used in order to take into account that not all value-added is usually taxed. The VRR measures the difference between the VAT revenue actually collected and what would theoretically be raised if VAT was applied at the standard rate to the entire potential tax base in a “pure” VAT regime and all revenue was collected. Here the strong assumption is taken that the national values currently observed in Member States would also hold for the financial sector. In cases where this data is missing, the country or EU averages have been used to impute missing values. Secondly, there are unfortunately no national estimates on the share of irrecoverable VAT and for this reason the average non-recovery rate of 0.79 from PricewaterhouseCoopers (2006) has been used best available proxy. This approach is similar to the one taken by De la Feria and Lockwood (2010) in Appendix A of their study. The only difference is that they used OECD IO tables instead of Eurostat's tables.

Table (1). List of variable

ESA code	Label of Variable	Source
S1	Total Economy	ESA, Eurostat
S2	Rest of the World	ESA, Eurostat
S11	Non-financial corporations	ESA, Eurostat
S12	Financial corporations	ESA, Eurostat
S13	General government	ESA, Eurostat
S14_S15	Households; non profit-institutions serving households	ESA, Eurostat
B1GM	Gross domestic product at market prices	ESA, Eurostat
B1G	Gross Value added at basic prices	ESA, Eurostat
P2	Intermediate consumption	ESA and IO tables, Eurostat
P51	Gross fixed capital formation	ESA, Eurostat
D41	Interest	ESA, Eurostat
D41G	Total interest before FISIM allocat	ESA, Eurostat
VRR	VAT revenue ratio	OECD (2011)

In order to calculate the consumption of financial intermediation for the different sector the following calculation has been applied. For sectors consuming FISIM (S11, S13, S14_S15) the FISIM consumed is sum of the differences in their interest streams:

$$FISIM = (D41_paid - D41G_paid) + (D41G_received - D41_received)$$

Since non-financial corporations are VAT exempt only the consumption of household and government has been considered in the calculation of the hypothetical VAT tax base.

Note that in fact these sectors consume the larger share of financial services. In 2009 the share of these sectors in total FISIM consumption was around 55%.

Three estimation approaches have been chosen. The difference between them is the data basis for the calculation of the irrecoverable VAT which in case of a VAT application would be fully deductible. In estimation 1 the basis for the calculation is the data on "Intermediate consumption" by the sector "Financial intermediation, except insurance and pension funding" from the "Use" tables of national Input-Output data as provided by Eurostat.

In estimation 2 "Intermediate Consumption" is taken directly from the European Sector Accounts (variable P2). In contrast to the Input-Output tables, the data in the sector accounts are however wider defined. They cover the whole financial sector (variable S12) with financial intermediation as one subgroup together with insurance and auxiliary financial services. In order to account for the fact that the FISIM data only covers the value-added from financial intermediation but not the other two subsectors, the values have been corrected. The assumption used for this correction is that the share of irrecoverable VAT for financial intermediation is equal to the share of FISIM in the Gross Value Added of the financial sector in total. The third estimation approach is wider and adds to the deductible "Intermediate Consumption" also "Gross Fixed Capital Formation" (variable P51) as VAT deductible.

Table (2). VAT exemption of the financial sector: Potential tax advantage

Year	Estimation 1		Estimation 2		Estimation 3	
	b. EUR	% of GDP	b. EUR	% of GDP	b. EUR	% of GDP
2000	13.7	0.15	16.3	0.18	14.2	0.15
2001	14.1	0.15	16.9	0.18	14.9	0.16
2002	15.2	0.15	19.0	0.19	17.2	0.17
2003	17.2	0.17	20.5	0.20	19.1	0.19
2004	18.3	0.17	21.7	0.20	20.1	0.19
2005	17.6	0.16	21.5	0.19	20.0	0.18
2006	14.4	0.12	21.9	0.19	20.2	0.17
2007	13.7	0.11	23.0	0.19	21.5	0.17
2008	14.1	0.11	22.6	0.18	21.0	0.17
2009*	18.1	0.15	19.2	0.16	17.8	0.15

*Note that no data is available for the UK for 2009 in estimations 2 and 3 which explains the decline in 2009. Source: Own calculations based on Eurostat and OECD data.

The results for the three estimates are shown in table (2). The most reliable data is the one from estimation 1 where the intermediate consumption of the financial intermediation can be directly measured using the Input-Output tables. The data suggest that the VAT exemption leads to an advantage in the range of 0.11% and 0.17% of GDP. This is in line with the results of Huizinga (2002) who estimates for the EU-15 with data from 1998 a value of around 0.15% of GDP. It should be noted that all these estimates are very rough approximations and should be interpreted with caution given the strong assumptions made when calculating the irrecoverable VAT. However, they indicate that the argument that the VAT exemption of financial services might be an advantage for the financial sector has some merits. The results do not change strongly when other estimates for the irrecoverable VAT are used.

Note that the estimates do not take into account the behavioural response due to price changes when applying VAT. The inclusion of the financial sector in the VAT would indeed lead to price changes, but such changes should be seen as the correction of an existing distortion rather than as a new distortion. The reason is that next to the question of whether VAT on financial services would raise revenues, there is an economic distortion arising from the current VAT exemption. While services provided to households are too cheap, services to businesses are more expensive. This leads to a misallocation of the consumption of financial services.

In summary, the VAT exemption for a large share of financial services is an important issue. It results in the problem that there might be a preferential treatment of the financial sector compared with other sectors of the economy as well as in a distortion of prices.

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