Opting for Opting In? An Evaluation of the European Commission's Proposals for Reforming VAT on Financial Services

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No 927

WARWICK ECONOMIC RESEARCH PAPERS

DEPARTMENT OF ECONOMICS

THE UNIVERSITY OF WARWICK

Opting for Opting In? An Evaluation of the European Commission's Proposals for Reforming VAT on Financial Services

Rita de la Feria and Ben Lockwood*

Abstract

This paper provides a legal and economic analysis of the European Commission's recent proposals for reforming the application of VAT to financial services, with particular focus on their "third pillar", under which firms would be allowed to opt-into taxation on exempt insurance and financial services. From a legal perspective, we show that the proposals' "first and second pillar" would give rise to considerable interpretative and qualification problems, resulting in as much complexity and legal uncertainty as the current regime. Equally, an option to tax could potentially follow significantly different legal designs, which would give rise to discrepancies in the application of the option amongst Member States. On the economic side, we show that quite generally, when firms cannot coordinate their behaviour, they have an individual incentive to opt-in on business-to-business (B2B) transactions, but not on business-to-consumer (B2C) transactions. We also show that opting in eliminates the cost disadvantage that EU financial services firms face in competing with foreign firms for B2B sales. But, these results do <u>not</u> hold if firms can coordinate their behaviour. An estimate of the upper bound on the amount of tax revenue that might be lost from allowing opting-in is provided for a number of EU countries.

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1. Introduction

Within the European Union most financial and insurance services are currently exempt under Article 135(1)(a) to (g) of the VAT Directive.[1] Under Article 168 of the Directive, VAT paid on input transactions will only be deductible "in so far as the goods and services are used for the purposes of the taxed transactions of a taxable person". Thus, where VAT is paid on inputs used to produce exempt financial supplies it will not, in principle, be deductible. The only exception to this rule applies to situations where the customer is established outside the Community, or where the financial transactions relate directly to goods to be exported out of the Community; in these cases, the taxable person will be entitled to deduct any related input VAT, under Article 169 of the Directive.

This situation conflicts with the standard policy advice on VAT , as for example, given in Ebrill et al.(2001): generally, "exemptions are abhorrent to both the logic and functioning of the VAT". Specifically, from a legal perspective, exemption for financial services gives rise to definitional and interpretative problems, creates difficulties in calculating the portion of deductible VAT, constitutes an incentive for engaging in aggressive tax planning, and has the additional problem of being conceptually incoherent with the general principles of the European VAT system. From an economic perspective, exempting financial services from VAT is regarded by most as a contravention to the principle of VAT as a general tax on consumption (Auerbach and Gordon (2002)). In particular, exempting any good or service results in a break of the VAT chain, tax cascading, bias towards self-supply, bias towards foreign suppliers, possible loss of potential tax revenue, and what is known as "creeping-exemptions" phenomenon (Ebrill et al.(2001), Chapter 8, and de la Feria, (2007), pp. 75-79).

The reason for this gap between reality and policy recommendation is of course, the practical difficulty, discussed in more detail in Section 2 of this paper, of taxing financial services; fundamentally, this is because many products (bank lending, insurance) involve intermediation by the supplier, and thus the value-added of services to the other parties

[1] Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, OJ L347, 11/12/2006, 1-118, hereafter "VAT Directive".

e.g. borrower and lender are not clearly distinguished[2], and thus cannot be separately taxed.

This problem has ensured that the question of how to treat financial supplies under VAT has remained on the European tax policy agenda. In the mid-1990s the European Commission set out to review the VAT treatment of financial services. Its starting point was the possibility of taxing these services through the cash-flow mechanism proposed by Hoffman, Poddar and Whalley (1987) and Barham, Poddar and Whalley (1987). The method, however, presented some difficulties, not least the potential for high compliance costs. Aiming at establishing whether these difficulties could be overcome, the Commission set up a review. The resulting Report prepared by Ernst & Young and published in 2000, identified a truncated cash-flow method (TCA) method of charging VAT – a modification of the original cash-flow approach - as the most viable solution[3].

Although this Report demonstrated that this method could successfully allow full taxation of financial services, and its technical feasibility was further confirmed by field testing undertaken by the European Commission across a range of financial institutions, it was received with little enthusiasm by both legislators and business alike. In 2004, the Commission convened a Fiscalis Seminar,[4] the principal focus of which was the VAT treatment of financial services, and in particular the possibility of moving towards full taxation of these services using the TCA method. The seminar reportedly revealed an overwhelming consensus against this move, leading the Commission to abandon in the medium term any attempts to undertake it. The failure to reach an agreement on the introduction of a TCA system did not, however, remove the difficulties caused by exempting financial services. If anything, the need to find a satisfactory solution has increased since the beginning of the Commission's review process in the mid-1990s (de la Feria (2007)). Now, these rules are once again under review.

[2] These are known as margin-based products.
[3] The cash-flow method, and the TCA method are reviewed in Section 5 of this paper.
[4] Fiscalis is a training programme organised by the European Commission, and directed at the officials of national tax administrations. Its principal aim is to improve the operation of taxation systems in the EU, see Decision No. 1482/2007/EC of the European Parliament and of the Council of 11 December 2007, OJ L330, 15/12/2007, 1-7.

In November 2007, following a lengthy consultation procedure initiated in the wake of the ruling from the Court of Justice (ECJ) in *Accenture*,[5] the European Commission presented two legislative proposals with a view to amending the EU VAT treatment of financial (including insurance) services (Commission of the European Communities (2007a) and Commission of the European Communities (2007b)). Behind the proposals was the wish to enhance the functioning of capital markets and improve the competitiveness of European financial institutions at international level (Borselli (2009), p. 375). In this context, the objectives were, in the words of the Commission, two-fold: to increase legal certainty, and to reduce the impact of non-recoverable VAT for financial institutions.

These objectives are to be achieved through what has been designated as "three pillars": clarification of the rules governing the exemption for financial supplies, in particular re-definition of financial services which are subject to exemption; introduction of a cost-sharing group, allowing economic operators to pool investments and re-distribute the costs of these investments to the members of the group, exempt from VAT; and introduction of a compulsory option to tax, i.e. compulsory for Member States to allow taxation, but optional for financial institutions to opt-in for taxation.

The negotiations at the Council of Ministers started soon after the proposal was put forward by the Commission, and have been ongoing ever since.[6] Keeping up with the contents of the negotiations is an almost impossible task, but it is reasonable to assume from all official documentation available that negotiations have been difficult, in particular insofar as pillar three, the option to tax, is concerned. Negotiations have concentrated primarily on discussions over the first pillar of the proposal (clarification and re-definition of exemptions), whilst almost no time has been devoted to pillar two (cost-sharing arrangements). Pillar three (the option to tax) has also been the subject of lengthy discussions, but most national delegations, including that from the United

[5] See Commission of the European Communities (2006), and case C-472/03, [2005] ECR I-1719. For an analysis of the *Accenture* ruling and its impact, see de la Feria (2007).

[6] The Council's Working Party on Taxation Questions – Indirect Taxation (VAT) has met over fifteen times since January 2008 to discuss these proposals, available as Communications from the Council of the European Union.

Kingdom,[7] and France (Borselli (2009), p. 382) have reportedly manifested their scepticism as regards any change to the current legal provisions.

The aim of this paper is therefore to consider all measures, and in particular the option to tax, from both a legal and an economic perspective, assessing whether they do indeed constitute an improvement on the current regime. In particular, are these measures likely to address the distortions caused by the current regime, or will they merely substitute the current difficulties with new ones?

In part 2, we discuss the particular challenges of levying VAT on financial services products and estimate the "size of the problem" i.e. the amount of irrecoverable VAT paid by the financial services sector. A legal and economic analysis of the merits and demerits of the Commission's three pillars will then be undertaken, starting in part 3 with a legal examination of the first two proposed pillars, namely clarification of exemptions and legal definitions, and cost-sharing groups. In part 4 the focus will shift to the third pillar, i.e. the option to tax. Following an analysis of the optional legal regimes currently applicable within the EU, an assessment of the possible legal designs for an EU-wide option to tax will be undertaken. This legal analysis is followed by a detailed economic assessment of the consequences of introducing an EU-wide option to tax, including some estimates of the amount of tax revenue that might be lost from adopting the option. Finally, in part 5, we discuss two main alternatives to the option to tax: the tax calculation account (TCA) method of Poddar and English, and zero-rating of B2B transactions.

2. Some Background

2.1 Why it is Desirable But Difficult to Tax Financial Services

It is now widely accepted amongst economists that on efficiency grounds, financial services should be subject to VAT. For example, the influential work of Auerbach and Gordon (2002) views the financial services sector as providing transactions services (bank accounts, credit cards, etc) that facilitate the purchase of goods and services. In this framework, they demonstrate that under a wide set of conditions, a switch from a labour

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[7] See Document 15793/08 FISC 156, 14 November 2008 from Presidency of the Council of the European Union to the Working Party on Tax Questions – Indirect Taxation (VAT), at 3-6; and Document 11013/08 FISC 80, 23 June 2008.

income tax to a VAT will leave relative consumer prices unchanged if and only if the transactions services are subject to VAT, with credit being given to VAT paid on inputs to the financial services sector[8]. There are exceptions to this rule, most importantly, that the timing of tax payments changes, and this can raise real intermediation costs (Auerbach and Gordon (2002), p415). But, nevertheless, the lesson that has been drawn from this academic literature is that inclusion of financial services in VAT is desirable.

But is it feasible? If a financial services company is providing a product that can be priced via the charging of fees and commissions (such as consultancy services, commissions charged by brokers on acquisitions and disposals of securities, etc), this can be made subject to VAT in the normal way. The problem arises with margin-based products, such as bank lending or insurance.

The difficulties are demonstrated by the following example. In the first period, a depositor deposits £100, which the bank lends on to a borrower. In the second period, the borrower repays the principal plus interest at 15%, and the bank repays the principal plus 7% interest to the depositor. In this, case, the value of intermediation services is £15-£7=£8, and VAT should be paid on this value-added. The simplest situation is where both the depositor and the borrower are consumers i.e. not liable for VAT. In this case, the value-added could be taxed simply by requiring the bank to pay VAT on the whole margin of £8.

But, in the case where either the borrower or depositor is a business, a complication arises. Suppose, for example, that the borrower is a business liable for VAT. In this case, if the bank charges VAT, the value of intermediation services supplied only to the <u>to the borrower</u> must be identified, so that the borrower can claim back VAT paid on the intermediation services supplied to it by the bank. Conceptually, the cash-flow VAT proposed by Hoffman, Poddar and Whalley(1987) can solve this problem; the margin is divided automatically by the rate of interest[9] at which the government can borrow (see

[8] There are a few dissenting voices (Grubert and Mackie (2000); Jack (2000); and Thuronyi (2003), at pp. 322-324), but most of the objections raised are dealt with in Auerbach and Gordon(2002).
[9] For example, if the government can borrow at 12%, the value of intermediation services provided to the borrower would be £15-£12=£3

Poddar and English(1997), Example B). But, as explained in Section 5, there are major practical difficulties with the cash-flow approach.

Insurance services create similar problems[10]. Here, it is useful to distinguish pure insurance from life insurance and annuities. In principle, pure insurance can be made subject to VAT by treating premiums paid as sales, and the payment of claims as purchases. But, matters are more complicated with life insurance and annuities, as the case of these services there is an additional savings dimension to take into consideration (Barham, Poddar and Whalley (1987)).

In general, then, the problem in taxing financial services is that often, there is no well-defined price or fee for the financial service, and thus the usual invoice-credit method is not directly applicable; moreover, the cash-flow approach, while conceptually correct, is not practical. The Commission's "opting in" proposal is essentially an attempt to circumvent this problem by providing a tax incentive to financial services providers to set a well-defined price[11] for some products - the reward for doing so is that they can then "opt-in" to taxation of those products, and claim back the input VAT.

2.2 The Size of the Irrecoverable VAT problem

As acknowledged by the Commission itself, not much is known about the scale of irrecoverable VAT within the financial services industry (Commission of the European Communities (2007c), p. 4). A report commissioned by the Commission from PWC (Price Waterhouse Coopers (2006)) studied 22 financial services firms, and found a great deal of heterogeneity across firms. Between 0% and 74% of VAT on inputs was recovered, this figure varying with the location of the firm, the nature of the customer base,[12] etc. The average recovery rate was 20.7%. The report concludes that "costs associated with irrecoverable VAT have a clear bearing on the profitability of EU25 financial services firms". In particular, they calculate that full recovery of input VAT would imply "net profit margins rising between 1 and 3 percentiles or 5 and 10% in the

[10] This does not mean that insurance products are exempt from tax. For example, the UK has an insurance premium tax levied at a rate of either 5% or 17.5% on a range of standard products.
[11] In fact, under the proposal, a FS provider is obliged to define a "taxable amount", which is the value-added on the transaction. But of course, implicit in this is a price or fee for the service.
[12] If the customer base is largely outside the EU, for example, then much VAT will be recovered, as input VAT is recoverable on exports to outside the EU.

case of nearly all of the Case Study Companies for which information is available" (PWC (2006), p 95).

The PWC study estimates the percentage of potentially irrecoverable VAT that is in fact recovered for a sample of companies. But, to date, no figures for the overall monetary size of irrecoverable VAT have been calculated at the national level[13]. In Appendix A, we provide an estimate of irrecoverable VAT on inputs (in Million Euro, for 2006), due to exemptions in the financial services sector for a selection of EU countries (UK, France, Germany, Italy, Netherlands, Spain) using national input-output tables from the OECD, other information about the VAT system, and the data from the PWC study. These estimates are therefore "top down", and thus very approximate, and should be taken as indicating no more than orders of magnitude. The results of these calculations are reported in Table A1. These estimates indicate that estimated irrecoverable VAT is less than 1% of total tax revenue for all countries except for the UK, reflecting the relatively large size of the UK financial services sector.

3. A Review of the EU Proposals: The First Two Pillars

3.1 Clarification of Exemptions and Legal Definitions

The legal provisions regarding the VAT treatment of financial supplies, and in particular Article 135(1)(b) to (g) of the VAT Directive, are difficult to interpret. Determining the scope of any exemption will always be a problematic task, however, this is particularly evident as regards the exemption applicable to supplies of financial services. The last decade has witnessed a significant development in new forms of finance products, as well as the emergence of new supply structures, which make use of, *inter alia*, outsourcing, sub-contracting and pooling techniques. Traders and national tax administrations alike have been increasingly unsure as to whether these new products, and more questionably these new supply structures, fall within the scope of those exemptions (de la Feria,

[13] The UK Treasury estimates that in 2006, VAT revenue lost due to exemptions in the financial services sector were £4200 million, rising to £4500 in the following year (HM Treasury (2007)). But of course, this figure comprises any revenue lost from not imposing VAT on sales to VAT exempt customers (mainly the household sector), minus irrecoverable VAT paid by financial services firms.

(2007), pp. 75-76; and Grambeck (2009)). As the case-law of the European Court of Justice demonstrates, in many cases establishing whether a particular service is exempt or taxable, can prove extremely difficult. Moreover, as demonstrated by the OECD 1998 Report on the application of VAT to financial services, Member States' application of the VAT Directive provisions in this area is far from uniform (OECD (1998) and Kogels (2003), pp. 34-41).

In this context, the growing level of case law emerging from the ECJ on the scope of the exemptions applicable to financial supplies should come as little surprise. In fact, since the mid-1990s, the ECJ has been consistently asked by national courts to rule on the interpretation of those exemptions. The most common concern, as well as the most controversial, has been the inclusion, or exclusion, of new commercial practices, within their scope. Amongst other services, the Court has been asked whether the following should be regarded as exempt or taxable: outsourced data collection activities by financial institutions to third parties;[14] outsourced call-centre services provided to clients or potential clients of financial institutions on their behalf;[15] activities undertaken by third-parties in relation to fund management;[16] and outsourcing / subcontracting of credit-related services.[17]

Ironically, whilst the Court's efforts to clarify the scope of these exemptions are not in question, it is also clear that the rulings have in many cases heightened the level of legal uncertainty. Decisions of the ECJ are by their own nature concrete and specific, based on a given set of facts. Consequently, extrapolating general principles from the Court's decisions and applying those to distinct factual scenarios can be a precarious task. In areas which are by their very nature complex, such as financial supplies, the result has been that the introduction of a general principle in a given ruling has demanded extra qualifications and explanations by the Court in subsequent rulings (Swinkels (2005), p. 246). As a result, the body of case law in this area is not only complex, but is equally filled with factual minutiae (de la Feria (2007)).

[14] Case C-2/95, *SDC*, [1997] ECR I-3017.
[15] Case C-235/00, *CSC Financial Services*, [2001] ECR I-10237.
[16] Case C-169/04, *Abbey National*, [2006] ECR I-4027.
[17] Case C-453/05, *Volker Ludwig*, [2007] ECR I-5083.

It is against this background that the Commission is now proposing clarification both of the rules governing exemptions, and of legal definitions. Under the 2007 proposals this clarification is achieved through two means: amendment of the VAT Directive, where broad interpretative guidelines are provided; and inclusion in a separate, ancillary, regulation of two extremely detailed lists of financial products, one of products which are exempt from VAT, and one other of products that are taxable. The rationale for such detailed listings is clear: to avoid the high level of legal uncertainty which the current provisions give rise to. It is likely that this will be achieved to some extent: the new provisions are likely to constitute helpful guidelines to national administrations, as well as courts, providing a better insight into the legislator's intention. The new provisions will not, however, ensure complete legal certainty, or avoid litigation altogether. They are not a panacea. In fact, they can themselves become a source of considerable difficulties in the short to medium term.

Firstly, detailed listings limit in practice the potential for adaptability of legal provisions to potential new financial realities. It is likely that such lists will be out of date almost immediately after approval. The problem is highlighted by an example, that of the so-called Islamic financial products, i.e. financial products which comply with Sharia law: these products are not included in the proposed regulation, but as soon as this was presented, it became clear that this was a problem for several Member States with large Islamic communities, such as the UK. Also symptomatic of this problem is the fact that the negotiations at the Council regarding the proposals seem to focus primarily in the details of the financial products' listings.[18] The proposed regulation includes provisions allowing for a quick process of amendment of the listings, however, continued requirement for unanimity voting will make such procedure difficult to implement.

Secondly, detailed listings always give rise to complications at the edges, creating perfect conditions for the proliferation of planning and avoidance opportunities, whereby business structures are put in place with the primary or exclusive reason of taking advantage of a legal loophole in order to maximise the recoverability of input VAT by financial institutions. This unwanted consequence is all relevant when considering that

[18] On this regard see various documents from the Presidency of the Council of the European Union to the Working Party on Tax Questions – Indirect Taxation (VAT).

preventing VAT planning and avoidance was one of the same exact problems which the current legislative review is aimed at resolving.

3.2 Cost-Sharing Groups

The principle of cost-sharing groups is to regard transactions carried out between members of the group automatically as exempt. They therefore allow firms to pool investments, such as IT activities, and re-distribute the costs for these investments exempt from VAT. The great advantage of entering these groups for financial institutions is that without such groups, pooling activities might be subject to VAT, and thus input tax charged which cannot be deducted.

Under certain conditions, cost-sharing groups are already allowed under Article 132(1)(f) of the VAT Directive, with various Member States applying specific legislation on this regard. Under that Article supply of services by “independent groups of persons”, i.e. cost-sharing groups, carrying out activities for their members will under certain conditions be deemed exempt. The broad scope of the provision means in practice that the exemption has been interpreted by some as applicable to cost-sharing groups performing any exempt activity, such as – but not exclusively –financial and insurance services. The European Commission has expressed some reservations as regards such interpretation, primarily because Article 132(1)(f) is located in a section of the Directive dedicated to “exemptions in the public interest”, whilst the exemptions for insurance and financial services are located in another part of the Directive. The matter was likely to have been settled soon in the context of the ECJ hearing in *AXA Belgium*, which concerned the interpretation of Article 132(1)(f) in the context of cost-sharing groups applicable to the insurance industry.[19] Unfortunately, this case has now been removed from the Court’s register, so clarification of this matter has been postponed.[20]

Yet, despite these reservations, in practice national provisions allowing for cost-sharing groups within the field of insurance and financial services can be found in several Member States, namely in those that do not allow VAT groups, such as Portugal or Luxembourg. The legal design of these provisions can diverge substantially amongst

[19] Case C-168/07, OJ C129, 09/06/2007, p. 8.
[20] By Court’s Order of 11 August 2009.

themselves,[21] mainly as regards the type of members which can be part of cost-sharing groups: provisions may require all members to be established within the territory of the country, or may allow for cross-border groups, which can be either intra-community, or worldwide cross-border groups, i.e. to either include group members established in another Member State, or to include also group members established outside the EU; they may also impose requirements as regards the deductibility status of group members, from being fully exempt, to having a small amount of taxable activities, in which case the acceptable level of taxable activities can equally vary substantially, from 10% to more generous amounts.

The aim of the proposed new provisions is to clarify the legislative framework applicable at present to cost-sharing bodies, by setting out a specific regime applicable only to cost-sharing groups engaging in financial and insurance services. Under this proposed regime, group members must fulfil the following conditions: the group itself and all its members are established or resident in the Community; the group carries out an autonomous activity and acts as an independent entity towards its members; members of the group are supplying financial or insurance services which are exempt under Article 135(1)(a) to (g) or other services in respect of which they are not taxable persons; the services are supplied by the group only to its members and are necessary to allow members to supply services which are exempt pursuant to Article 135(1)(a) to (g); and the group claims from its members only the exact reimbursement of their share of the joint expenses,[22] excluding any transfer-pricing adjustments made for the purposes of direct taxation.

Importantly, the proposed provisions clarify that cost-sharing groups do indeed apply to financial and insurance services. Moreover, their detailed nature would indeed help clarify some of the ambiguities which the wording of Article 132(1)(f) of the VAT Directive currently gives rise to. The problematic reference to "distortions of competition" included in that Article has been eliminated;[23] and it has been made clear that transfer-pricing adjustments are to be disregarded for the purposes of services

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[21] For an analysis of the legal design of the cost-sharing group provisions in Portugal, see Deloitte (2008).

[22] The meaning of the expression "reimbursement of their share of the joint expenses" in current Article 132(1)(f) was recently object of debate in case C-407/07, *Stichting Centraal Begeleidingsorgaan voor de Intercollegiale Toetsing*, Judgment of 11 December 2008.

[23] The meaning of the reference to "distortions of competition" in Article 132(1)(f) was the main issue in case C-8/01, *Assurandor-Societetet*, [2003] ECR I-13711.

provided by the cost-sharing groups. More importantly perhaps, the proposed provisions establish with certainty that group members must be established within the territory of the Community, i.e. members can be established in any of the Member States, but not in their countries, thus harmonising one of the main points of divergence between Member States allowing for cost-sharing groups under the current Article 132(1)(f).

Yet, there are difficulties. First, it is note worthy that cross-border cost-sharing groups are inherently vulnerable to aggressive VAT planning schemes, easily allowing the set-up of business structures with the primary or exclusive reason of maximising the recoverability of input VAT by financial institutions (Swinkels (2008), p. 17). Second, the proposed provisions remain silent about one other main point of divergence: whether to allow the group to include members which are merely partially exempt, or whether to restrict membership to full exempt businesses. This is not a trivial matter, mostly when considering that most financial and insurances institutions are allowed to recover a small part of their input VAT. The Commission has expressed its own vision that cost-sharing groups should be able to include partially exempt financial institutions, and even perhaps fully taxable persons (Commission of the European Communities (2008), pp. 15-16). However, the lack of actual harmonisation on the issue is likely to result in different national legal designs, with consequent discrepancies regarding the scope of national provisions on cost-sharing group.

Moreover, this new cost-sharing regime is aimed at removing the bias towards self-supply which the current exemption system gives rise to. The reason for the present self-supply bias is clear: in the case of self-supplies, the financial institutions will only have to pay VAT on the purchase of goods or services involved; on the contrary, where there is outsourcing or sub-contracting of services to another entity, VAT will be charged on the full price of those services. As the right to deduct input VAT of financial institutions is limited, VAT charged on outsourced or subcontracted activities will represent an extra cost, whilst, where there is a self-supply this extra cost will be avoided.[24] The expectation is that the new cost-sharing regime will remove this bias. In practice,

[24] It has been noted that this bias is more intense in larger financial institutions, “as smaller financial firms will be more likely in general to outsource rather than provide services in-house”, thus perversely creating an additional layer of competitive inequality between larger and smaller firms (Schenk (2008), p. 40).

however, such bodies are of limited application, only resolving the problems arising from pooling structures, but not those emerging from the set-up of either outsourcing or sub-contracting structures. Proof of this is the fact that commercial structures-related problems still arise in Member States which already apply specific legislation in this area. As the Commission itself acknowledges, cost-sharing groups are likely to be useful only for small operators (Commission of the European Communities (2008), p. 14). Thus, it is unlikely that these new measures will achieve their aim of removing the bias towards self-supply.

4. A Review of the EU Proposals: The Option to Tax

4.1 The Option To Tax: The Current Situation

In order to avoid the intrinsic difficulties resulting from treating financial services as exempt, the VAT Directive currently allows (but does not compel) Member States to introduce an option to tax. Under the optional clause in Article 137(a), Member States may allow taxable persons a right of option for taxation in respect of financial transactions referred to in points (b) to (g) of Article 135(1), although not in respect of insurance transactions, under point (a) of Article 135(1). Unfortunately the clause does not include any guidelines on how to apply such an option to tax, including the method of taxation, or the scope of the right to opt. Its paragraph 2 merely states that it will be left to the Member States to lay down the rules governing exercise of the option, which may include a restriction of the scope of the right to opt. Perhaps due to the lack of guidance and vagueness of the clause, only a few Member States have availed themselves of the clause by introducing an option to tax: Austria, Belgium, Estonia, France, Germany, and Lithuania. Unsurprisingly, both the scope of application and the formalities necessary for exercising the option vary considerably amongst those Member States. Moreover, none of them includes any rules for determining the value added of financial services, or the taxable amount, on which VAT will apply. Appendix B surveys the use of the option to tax in these countries.

4.2 The Option to Tax: A Legal Analysis

As Appendix B demonstrates, the design of the option to tax can diverge substantially across EU member countries in the following dimensions:

- the type of transactions included, i.e. the option can apply to all exempt financial services transactions, or only to specific transactions;
- VAT status of the acquirer of the financial service, the option may apply only to B2B transactions, or also to B2C;[25]
- in terms of the amount of transactions the option may apply to, it might have to be an "all-in" option, under which the supplier must opt in as regards all transactions or none at all, a supplier-by-supplier option, or it might allow the option to be available on a transaction-by-transaction basis;
- treatment of cross-border transactions, the option might apply to both domestic and cross-border transactions, or just for domestic transactions; and finally,
- in terms of the applicable time span, the option might either be revocable or irrevocable.

Under the current proposal little detail is given as regards the rules which will govern the right to exercise the option to tax. It is merely stated that "Member States shall allow taxable persons a right of option for taxation in respect of the services referred to in points (a) to (g) of Article 135(1)". It is further added that it will be for the Council to "adopt the measures necessary for the implementation of paragraph 1 pursuant to the procedure provided for in Article 397. So long as the Council has not adopted such measures, Member States may lay down the detailed rules governing exercise of the option under paragraph 1".

From legal perspective this proposal for the extension of the option to tax is therefore problematic. The lack of guidelines as regards the legal design of the option is likely to give rise to very different national approaches as regards its scope. The only clear limitation under the proposal is that the option must apply to all exempt financial services transactions; in addition, although not specifically stated, the wording of the proposal also seems to indicate that the option must extent to both B2B and B2C transactions.

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[25] Theoretically the option may also be restricted only to B2C transactions, but in practice that would seem like an unlikely design.

In 2008 the Commission set out its own vision of how the option should be designed: it should apply to both B2B and B2C transactions; be available on a transaction-by-transaction basis; and without being subject to time-limits (Commission of the European Communities (2008), pp. 3-4). Were Member States to follow this design, this would eliminate the potential for national disparities, but of course they are not obliged to do so. Presumably the Commission's vision of how the option to tax should look like is not included in the proposal *precisely* to give Member States the flexibility to decide on their own design.

The proposal is therefore not likely to eliminate all the difficulties connected with exemptions. Interpretative problems are still likely to exist, as will distortions to competition resulting from discrepancies in the scope of the options applicable across the EU. Depending on the scope of the option, planning and aggressive planning are still possible, and overall high compliance and administrative costs are also to be expected.

In addition to these practical aspects, a basic conceptual question also emerges. Application of an option to tax implies necessarily the existence of a method to tax those transactions. Yet, the proposal does not provide any indication on that regard. The Commission has stated that many suppliers of financial services are actually able to determine the appropriate remuneration for their services, which can then be used as basis for determining the taxable amount for VAT purposes. In fact, it claims that most financial operators are increasingly using advanced book-keeping tools for matching input costs to specific outputs (Commission of the European Communities (2008), p. 9).

This assessment, however, seems to be in contradiction with the current situation in Germany: there the method to tax financial services, under their option to tax, seems to be a closely held secret by most German financial institutions. This raises the obvious question: if there was an obvious method of taxing financial supplies under VAT, why the need for secrecy amongst German financial institutions? Such secrecy only makes sense insofar as financial institutions consider that the method to tax constitutes a competitive advantage. Furthermore, with probably the most flexible design currently in place within the EU, the responsibility for the low take-up in Germany for the option to tax has been partially blamed on the difficulties in establishing the taxable amount for non-fee based transactions (Ernst & Young (2009), p. 43). The German example appears to signal two important facts: first, it is not self-evident for financial institutions what is the most appropriate method to tax financial services; and second, the introduction of a compulsory option to tax, as set out in the current proposals, has the potential to distort competition, insofar as it will put financial institutions with "more suitable" methods of taxing their supplies in a competitive advantage.

4.3 The Incentives to Opt Into Taxation

We now turn to an economic analysis of the option to tax. We begin with the economic incentives to opt in by financial services (FS) firms. In our analysis, we assume that the firm can do so on a product-by-product basis, and we also assume that FS firms can opt in or out conditional on the tax status of the buyer of the product i.e. the firm has the flexibility to discriminate on the option to tax between B2B sand B2C transactions. These assumptions are in line with the Commission's proposal – see Section 4.2 above. We assume also, without much loss of generality, that the firm sells a single product.

In this environment, it is very generally true that, if firms *do not or cannot coordinate their behaviour*, opting to tax is profitable for the firm in *if and only if a transaction is B2B i.e. a sale to a taxable person, who can reclaim the VAT.* This is true no matter what the structure of the market for the product i.e. whether it is perfectly competitive, a monopoly, or an oligopoly, and even if the EU-based supplier is competing against suppliers in other countries who do not pay VAT.

In the case of a perfectly competitive market, these results are perhaps not surprising. In the case of B2C transactions, the FS firm who opts in cannot pass on the cost of the VAT on its sales to the consumer, and the burden of the output VAT is by definition, larger than the VAT recovered on inputs. In the same way, In the case of B2B transactions, the FS firm who opts in <u>can</u> pass on the cost of the VAT on its sales to the consumer, as the consumer can simply deduct it from his own VAT payment. In this case, the FS must gain because he can now recover input VAT.

One might think, however, that if the FS firm is e.g. a monopolist, in the B2C case, it could pass on some of the output VAT to the consumer, and thus its share of the burden of output VAT might be less than the gain from being able to recover VAT on inputs.

The main purpose of this Section is to show that this conjecture is generally <u>not</u> correct – whatever the elasticity of demand faced by the firm, the loss in net sales revenue always exceeds the gain from recovery of VAT on inputs. Finally, these results do not carry over to the case where firms can coordinate their behaviour, as explained below.

Table 1 below makes our argument in the perfect competition case via a numerical example. We consider three scenarios. The first column of the table describes the initial situation where all firms are opting out. A firm combines an input liable for VAT at 10%, e.g. computer services, which costs 100, and a factor of production (capital or labour), and produces an output (e.g. insurance services, or a bank loan) priced at 200. The tax-inclusive price of the input is 110, and so the firm makes a profit of 90 which is the return to the fixed factor. This initial scenario could describe a B2B or a B2C transaction.

Now consider a firm that is selling to the final consumer (B2C) and chooses to opt in. Its gain or loss is described by the second column of the table. If a single firm decides to opt in, and all the other firms in the industry do not, this single firm cannot raise the price of its output, which, in the example, is fixed at 200. Thus, it bears the entire burden of the output VAT; at a VAT of 10%, as illustrated, its revenue per unit falls to approximately 182. It can now claim back the input VAT, so the price of the input effectively falls to 100, but its net profit is now only 82. Consequently, it will be always worse off opting in.

We now turn to the case where the firm is selling to a VAT-registered purchaser (a B2B transaction), described in the third column of Table 1. We continue to assume that the firm is perfectly competitive. But now, when the firm opts in, there is a difference. It can raise its price from 200 and 220 and remain competitive, because the purchaser can claim back the 20 in VAT on the sale. So, now it makes a profit of 220, minus the cost of the input, 110, and its own net VAT payment of 10, which is 100. This is now higher than the opting out profit of 90, and so there is always an incentive to opt in.

Table 1: Incentives to Opt In for Financial Service Suppliers				
	Opt out	opt in, B2C	opt in, B2B	Zero-rating
Price of input ex VAT	100	100	100	100
VAT on Input	10	10	10	10
Price of output inc. VAT	200	200	220	200
Price of output ex. VAT	200	181.8*	200	200
VAT on output	0	18.2	20	0
VAT paid by supplier	0	18.2-10 =8.2	20-10=10	0
Profit per unit of supplier	200-110=90	200 – 110 – 8.2=81.8	220 - 110 –10 100	200-100=100

*calculated as 200/(1.1)

We now show that this line of argument generalises to any kind of imperfect competition. Consider a number of FS firms $i=1,2..n$ selling a differentiated product to final consumers at prices $p_1,..p_n$. Demand for firm i's product is $Q_i(p_i;p_{-i})$, where p_{-i} is the vector of prices other than firm i's. We assume, as is standard, that firm i takes prices p_{-i} as given when choosing its own price. This set-up covers both monopoly and perfect competition as limiting cases. Monopoly is when $Q_i(p_i;p_{-i})$ is independent of p_{-i}, and perfect competition occurs when the goods are perfect substitutes, in which case, $Q_i(p_i;p_{-i})$ is zero if $p_i > \min_{j=1,..n} p_j = \underline{p}$, and $Q_i(p_i;p_{-i}) = Q(\underline{p})/m$ otherwise, where m is the number of firms setting the minimum price.

We assume, following Huizinga (2002), that financial services are produced from labour and another input (say, IT services) via a fixed coefficients technology. Let p^* be the fixed price of the input and w be the price of labour. We will allow firms to differ in technology, as well as in demand; one unit of the output of firm i requires a_i units of labour, and b_i units of the intermediate input. The fixed coefficients assumption is for clarity only i.e. it is not essential.

Now suppose that there is VAT at rate *t*, but that firm i opts out. The firm pays a price $p^*(1+t)$ per unit of the input. Total unit costs for this firm are thus $p_i - a_i w - b_i p^*(1+t)$, and so profit is:

$$\pi_i^{OUT}(p_i;p_{-i}) = (p_i - a_i w - b_i p^*(1+t))Q_i(p_i;p_{-i}) \tag{1}$$

If the firm opts in, it must charge VAT on the value of sales, excluding VAT, which is $\frac{p_i}{1+t}Q_i(p_i;p_{-i})$, but can reclaim the VAT on purchases of the input, $b_i p^* Q_i(p_i;p_{-i})$, so that its unit costs fall to $a_i w + b_i p^*$. In this case, profit at price p_i is:

$$\pi_i^{IN}(p_i;p_{-i}) = (p_i - a_i w - b_i p^*)Q_i(p_i;p_{-i}) - t\frac{p_i}{1+t}Q_i(p_i;p_{-i}) \tag{2}$$

So, from (1),(2), at any <u>fixed</u> price p_i :

$$\pi_i^{IN}(p_i;p_{-i}) - \pi_i^{OUT}(p_i;p_{-i}) = t\left(b_i p^* - \frac{p_i}{1+t}\right)Q_i(p_i;p_{-i}) < 0$$

But this is negative for any $p_i > b_i p^*(1+t)$ and firm *i* will always set such a price (otherwise, it would not cover his wage costs, and make a loss). So, at any <u>fixed</u> feasible price, firm *i* is better off opting out. Thus, given that firms set prices optimally, $\max_{p_i} \pi_i^{IN}(p_i;p_{-i}) < \max_{p_i} \pi_i^{OUT}(p_i;p_{-i})$, and so in equilibrium, firm *i* is better off opting out.

Now suppose that firm *i* sells its product to another business, which is liable to VAT i.e. a B2B transaction. At any p_{-i}, this business demands $Q_i(p_i;p_{-i})$ from firm *i* when firm *i* sets price p_i. Now, if firm *i* is initially not opting in, and then does opt in, without changing its ex-VAT price, its price will rise from p_i to $p_i' = p_i(1+t)$. The key point is that if the purchaser can recover the VAT paid i.e. $p_i t$ then its demand will not change i.e.

$$\tilde{Q}_i(p_i(1+t);p_{-i}) = Q_i(p_i;p_{-i}) \tag{3}$$

where $\tilde{Q}_i$ denotes the demand for firm i's product when i is opting in. It must charge VAT on the value of sales, excluding VAT, which is now $p_i\tilde{Q}_i$, but can reclaim the VAT on purchases of the input, $b_i p^*\tilde{Q}_i$, so that its unit costs fall to $a_i w + b_i p^*$. It then follows that at a fixed ex-VAT price p_i, profit from opting in is:

$$\begin{aligned}\pi_i^{IN}(p_i(1+t);p_{-i}) &= (p_i(1+t) - a_i w - b_i p^*)\tilde{Q}_i(p_i(1+t);p_{-i}) - tp_i\tilde{Q}_i(p_i(1+t);p_{-i}) \\ &= (p_i - a_i w - b_i p^*)\tilde{Q}_i(p_i(1+t);p_{-i}) \qquad (4) \\ &= (p_i - a_i w - b_i p^*)Q_i(p_i;p_{-i})\end{aligned}$$

where we have used (3) in the last line. So, then from (1) and (4), at a fixed ex-VAT price p_i, the gain to opting in is always positive:

$$\pi_i^{IN}(p_i(1+t);p_{-i}) - \pi_i^{OUT}(p_i;p_{-i}) = tb_i p^* Q_i(p_i;p_{-i}) > 0$$

It thus follows that firm i can do better by opting in when prices are chosen optimally.

Note that the above analysis applies whatever the nature of the competition in the market i.e. how strongly p_{-i} affects Q_i, as long as each firm i takes p_{-i} fixed. In particular, some of the other firms could be foreign suppliers, who do not pay VAT. This is an important case, because, as mentioned in the introduction, a key issue for the FS industry is the perceived disadvantage, due to unrecovered VAT , faced by EU-based firms when competing in a global market for financial services.

In this case, the above results can be interpreted as follows. Assume that firms $i = 1,..k$ are EU-based, and forms $i = k+1,..n$ are foreign, and all have the same production technology (for simplicity), with $a_i = b_i = 1$. Then, initially, all EU-based firms have an effective cost disadvantage due to irrecoverable VAT: their unit costs are $w + p^*(1+t)$, compared to the lower unit cost of $w + p^*$ for foreign firms. The above analysis thus shows that if all firms are selling to a final consumer, opting in just worsens this disadvantage. On the contrary, if all firms are selling to a VAT-liable business, opting in eliminates this disadvantage; the unit costs of EU-based firms $i = 1,..k$ effectively fall to $w + p^*$.

Finally, we discuss some extensions and qualifications. First, what if firms set quantities, not prices? This does not seem a very plausible assumption for the FS industry. However, it can be shown (details on request) that the same arguments apply; that is, opting in is only profitable on B2B transactions.

A more important qualification is that the results will generally not extend to the case where firms can coordinate their behaviour. Consider, for example, the case where all firms can collectively agree to opt in or not on B2B transactions. Comparing (1) and (4), it is clear that collective opting in is equivalent to a cost decrease of $b_i p^* t$ for all firms. It is well-known that in differentiated products oligopoly, such a cost decrease does not necessarily make all firms better off, as each firm will then decrease its price, which has a negative external effect on other firms, as long as all goods are substitutes (Andersen et al (2001)). Indeed, for identical firms, and $b_i p^* t$ small enough, we can use Proposition 3 of Andersen et al (2001) to conclude that firms will be collectively worse off by opting in if the elasticity of Q_i with respect to p_i is itself sufficiently responsive to the common price $p = p_1 = ..p_n$.

4.4 The Effects of Opting In On VAT Revenues

Member States are concerned about possible negative impact on tax revenue of opting in. Indeed, there appears to be the perception that perceived tax revenue losses from opting in is the single most important challenge facing the proposals' approval by the Council (Commission of the European Communities (2007c)). If compulsory opting in is introduced, the effect on revenue is twofold. First, output VAT is charged on those transactions on which FS firms opt in. Second, input VAT is now recoverable on inputs associated with those outputs. But, section 3.3 suggests that opting in will only take place on sales to VAT-registered entities. So, the VAT charged on "opted in" transactions will itself be deducted from VAT on final sales. This means that an upper bound on revenue losses will be given by the amount of input VAT for FS firms associated with B2B transactions. (It is an upper bound because it will not be technically possible for firms to determine a "taxable amount" for all B2B transactions, even if they wish to do so).

Given our estimates of irrecoverable VAT in Table A1, we can attempt a rough estimate of this maximum revenue loss from opting in. This is presented in Table 2 below. The first column of Table 2 gives our estimate of irrecoverable VAT from Table A1. Column 2 gives estimates, using national input-output tables for each of the six countries, of the percentage of total output of the financial services sector that is sold to buyers who can claim back VAT. An approximation is used; all intermediate purchasers, except for public administration and defence, education, health, community and social services sectors (who are clearly exempt), are assumed to be in this position. So, an upper bound on potential losses from allowing opting in is given in column 3, which is the product of columns 1 and 2. Although some countries, notably the UK, with its large financial services sector, may risk losing several billion Euro in tax revenue, the amounts "at risk" are generally relatively small fractions of total tax revenue.

Table 2: Estimated Revenue Losses from Allowing Opting In

	Estimated irrecoverable VAT, million 2006 Euros	Intermediate demand as % of total output*	Estimated maximum loss from allowing opting in, million 2006 Euros	Estimated maximum loss from allowing opting in, % of total 2006 tax revenue
France	5283.57	0.67	3539.99	0.43
Germany	6923.19	0.70	4846.23	0.51
Italy	2465.81	0.80	1972.65	0.31
Netherlands	1410.72	0.59	832.32	0.39
Spain	1575.85	0.74	1166.13	0.32
UK	11084.21	0.58	6428.84	0.86

* excluding purchases by public administration and defence, education, health, community and social services sectors

But, it should be noted that our calculations in Table 2 are the *direct*, or first-round, revenue losses. In addition, there is an *indirect*, or *general equilibrium* effect. The simplest way to see this effect is in the competitive case. Opting in reduces the costs of the FS firm, and being competitive, they pass all of this cost reduction on in the form of a lower price of the input provided by the FS firm to the producer of the final good.[26] Then, in turn, because the producer of the final good is competitive, it will pass this lower cost

[26] This assumption maximises the magnitude of the general equilibrium effect, and so subsequent calculations should be interpreted as upper bounds on the size of this effect.

on in the form of a lower final goods price. Then, in this simple scenario, the sign of the indirect effect turns on the elasticity of demand for the final good. If it has an elasticity greater than 1, the value of sales of the final good will increase, and thus the VAT revenue on final sales will increase. If it has an elasticity less than 1, the value of sales of the final good will decrease, and thus the VAT revenue on final sales will decrease.

A detailed and credible calculation of the money value (or value as a % of tax revenue) of the indirect general equilibrium effect on tax revenue of opting in is beyond the scope of this paper. But, using an extended version of the model developed above to analyse the incentive to opt in, we can attempt a comparison of the *relative* size of the direct and indirect effect.

The main features of this model are (i) demand for the final product is an iso-elastic function of price; (ii) the FS sector produces output from labour and an input, subject to VAT, via a fixed coefficients technology; (iii) The FS sector sells its output to another business sector ("manufacturing"), and in turn, manufacturing produces final output via a fixed-coefficients technology from the FS input and labour. So, labour should be viewed here as a composite of other inputs. The coefficients of the technology are calibrated from UK input-output tables. All the details are in Appendix C. The main results are illustrated in the following Table.

Table 3: Direct and Indirect Revenue Effects

VAT rate	10%	10%	10%	20%	20%	20%	30%	30%	30%
elasticity of demand	-0.5	-1	-2	-0.5	-1	-2	-0.5	-1	-2
Sign of general equilibrium (GE) effect	<0	zero	>0	<0	zero	>0	<0	zero	>0
GE effect as fraction of total	0.05	0.00	0.09	0.11	0.00	0.17	0.18	0.00	0.23

As already remarked, the general equilibrium effect is negative, positive according to whether the elasticity of demand for the final product is less than one, greater than one, or equal to one. Generally, it is quite small in absolute value relative to the baseline effect, but can offset up to 23% of the baseline revenue loss.

5. The Commission's Proposals vs. The Alternatives: An Assessment

As noted in Section 2.1, the two main[27] alternative methods to the Commission's proposals for taxing margin-based financial services are the tax calculation account (TCA) method of Poddar and English, and zero-rating of B2B transactions. In this section, we discuss the features of these two alternatives in more detail, and contrast their advantages and disadvantages with the Commission's proposals. We assess all three options against four criteria: economic efficiency, administrative and compliance costs, scope for tax evasion, and impact on tax revenue. Following the discussion in Section 2.1, we assume that it is economically efficient to bring financial services fully within the scope of VAT i.e. to tax all outputs of the sector, with tax credits on all intermediate inputs.

We begin with the TCA method. This is an extension of the basic cash flow approach, itself proposed as a method for taxing margin-based financial services initially by Hoffman, Poddar and Whalley (1987) and Barham, Poddar and Whalley (1987). In the cash-flow approach, all inflows to banks are treated as taxable supplies, taxed at the rate of VAT, and all outflows are treated as inputs, and thus credited against VAT.

To illustrate the cash-flow approach, consider the following example[28], which extends the example of Section 2.1. In the first period, a household depositor deposits £100, which the bank lends on to a commercial borrower. With a cash flow VAT, in first period, the bank is liable for a tax of £10 on the deposit (cash inflow), but at the same time receives a tax credit of an equal amount on the loan of £100. So, no tax is paid by the bank in the first period. In the second period, the cash flows of the repayment of the loan by the borrower to the bank, and of the deposit to the household, again cancel out, except for the margin of £8, and so the bank's tax liability in the second period is 80p.

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[27] Zee(2005) proposes a method for collecting an invoice-credit VAT on some margin-based transactions, as an alternative to the TCA method.

[28] For more extensive discussion of this kind of example, see Poddar and English (1997) or Chapter 8 of Ebrill *et.al*. (2001).

What about the commercial borrower? In the first period, he has the cash inflow of a loan of £100, and thus is liable for VAT of £10. In the second period, he has a cash outflow of £115, and thus has a tax credit of £11.50. So, the operation of the system requires the calculation and payment of large amounts of tax, and tax credits in different periods, a requirement that might be burdensome, especially for smaller firms. An even more serious problem arises with tax changes. Suppose that there is no VAT in the first period, but it is introduced in the second. Then the borrower would receive a tax credit of £11.50 in the second period, despite having paid no tax in the first period.

To address these problems, Poddar and English (1997) proposed a modification of the basic cash-flow VAT using tax calculation accounts[29]. In a TCA, "tax that would otherwise be payable/creditable is instead debited/credited to the TCA and carried forward to the period during which the capital transaction is reversed. However, these deferrals (of tax) are subject to interest charges at the government borrowing rate". The TCA is an elegant solution to the problems with the cash flow VAT identified above. It can, in principle, be applied to all financial products, including complex products such as derivatives, and thus in principle, should be economically efficient i.e. bring financial services fully within the scope of VAT. But, it does require the choice of a government borrowing rate[30]. It is also administratively complex.

Are these difficulties insuperable in practice? As mentioned above, the 2000 Report prepared by Ernst & Young, and commissioned by the European Commission, identified the TCA as the most viable solution. Yet, it was received with little enthusiasm by tax administrations and businesses alike: the general consensus was that the resultant benefits of applying the TCA could not justify either such a profound change to the system, or the perceived complexity of running that system (Commission of the European Communities (2006), pp. 2-3; Commission of the European Communities (2007c), p. 8).

We now turn to zero-rating of B2B transactions. This approach must also specify how B2C transactions will be taxed. For example, Huizinga (2002) proposes zero-rating of

[29] See also Commission of the European Communities(2000) for a detailed discussion of TCA.

[30] One could take the view that the inability to get the rate exactly right does not really matter much. There are other areas of tax policy where we know we can't get it exactly right—in setting depreciation allowances, for example, and in transfer pricing adjustments—but we still think it worth doing, even if imperfectly.

B2B transactions, with aggregate taxation of all B2C transactions on a cash-flow basis. An alternative, less radical proposal, would simply leave arrangement for taxation of B2C transactions as they are i.e. with only fee-based services being taxed. The main economic problem with zero-rating, relative to either the current situation, or the Commission's opting in proposals, is that it reduces the overall revenue from the tax, because some final products which use financial services as inputs will themselves not be subject to VAT. This point is further discussed below.

On the other hand, we agree with Huizinga (2002) that zero-rating of all B2B transactions would clearly have lower administration and compliance costs than a cash-flow tax. The main evasion problem is that households may misrepresent themselves as businesses to avoid the tax. But, banks are in any case, under much stronger requirements to "know the customer" than they were, and the additional compliance burden here could be small.

Possibly for these reasons, some countries have experimented with zero-rating of B2B transactions or similar systems. New Zealand treats B2B transactions as zero-rated (Pallot (2007)); Jersey treats all transactions – both B2B and B2C – as zero-rated; and in Hong Kong under the recently proposed VAT system all financial transactions would also be treated as zero rated (Lejeune, Stevens and Killer (2009), p. 693). Australia and Singapore exempt B2B services, whilst allowing limited credits (de la Feria and Walpole (2009); Jenkins and Khadka (1998)).

How do the TCA and zero-rating of B2B taxes compare to the Commission's proposals? First, we view pillar one, the tightening up of definitions, as a change that should reduce compliance costs but that will have little impact on economic efficiency. Pillar two, cost-sharing groups, in turn, will reduce irrecoverable VAT and thus tax cascading, but at a cost of lost tax revenue.

So, we focus mostly on the option to tax. According to our analysis, this option will be taken up only on B2B transactions, and there only where a "taxable amount" can be determined. So, the practical effect of the proposals will be quite similar to zero-rating of B2B transactions. Indeed, if a FS firm opts into VAT on a sale to another business, and this business itself pays VAT on its output, that is equivalent to zero-rating of the transaction. This can be demonstrated using Table 1. The last column of Table 1 shows what happens with zero-rating; there is no VAT on the output, so revenue per unit is 200, and VAT of 10 is paid on the input, but that can be reclaimed. So, profit per unit for the supplier is the same as with opting in. The profit of the purchaser of the financial service is also the same, as long as he can claim back the VAT of 20 under opting in.

Of course, in practice, opting will only occur on a subset of currently margin-based untaxed products where the FS firm can set a chargeable price. So, the essential difference between opting in and zero-rating is that the latter is a broad-brush policy that will cover many more products and thus allow recovery of input VAT across many more products. In turn, this implies that the tax revenue losses will be higher with zero-rating in those sectors where final output is not subject to VAT.

Finally, if the administrative problems with the TCA approach could be solved, it would in principle, cover all types of financial services, as conceptually, as Poddar and English have shown, it can be applied to all financial services, including complex ones such as derivatives. So, the TCA approach has the economic advantages of no cascading, and no loss of revenue relative of the benchmark of a fully comprehensive VAT. But, currently, the administrative complexity of TCA seems to be insuperable.

6. Conclusion

The aim of this paper has been to assess whether the European Commission's recent proposals for reforming the VAT treatment of financial services do indeed constitute an improvement to the current system. In that context, a legal and economic analysis of these proposals was undertaken. From a legal perspective, it is shown that the proposals' "first and second pillar" would give rise to considerable interpretative and qualification problems, resulting in complexity and legal uncertainty.. Thus, these aspects of the proposals constitute only but a small improvement on the current regime. It is also demonstrated that an option to tax, as set out in the proposal, would give rise to significant difficulties. From a legal perspective, in addition to the intrinsic conceptual questions which introducing an option to tax would give rise to, significant discrepancies in the design and application of the option amongst Member States are likely to emerge.

On the economic side, we showed that quite generally, firms have an incentive to opt-in only on B2B transactions. An estimate of the upper bound on the amount of tax revenue that might be lost from allowing opting-in is provided, showing a maximum estimated loss for the UK of less than 1% of total 2006 tax revenue. Whilst this aspect of the Commission's proposals is clearly the most controversial, primarily in light of its potential revenue effects, our estimates of these suggest that they may not be that large. Instead it is the potential economic distortions resulting from likely discrepancies in the design and application of the option across the EU, as well as the conceptual compromises it rests upon, which constitutes the biggest risk. We conclude that, similar to alternative methods tested in other countries, the Commission's new proposed approach to treat financial services under VAT presents some advantages, and might not have the significant negative revenue impact that the Member States fear. Equally, however, it is unlikely to either ensure the legal certainty, or create the neutrality, that the Commission seeks.

References

Anderson,A. , A. de Palma, and B.Kreider (2001), "Tax Incidence in Differentiated Product Oligopoly", *Journal of Public Economics* 81, 173-192

Auerbach, A. J. and R.H. Gordon (2002), "Taxation of Financial Services under a VAT" *The American Economic Review* 92, 411-416

Barham, V., S.N. Poddar and J. Whalley (1987), "The Tax Treatment of Insurance Under a Consumption Type, Destination Basis VAT" *National Tax Journal* 40, 171-182

Borselli, F. (2009), "A Sensible Reform of the EU VAT Regime for Financial Services" *International VAT Monitor* 5, 375-383

Commission of the European Communities (2008), *Proposals on VAT Treatment of Insurance and Financial Services: Case Studies*

Commission of the European Communities (2007c), *Impact Assessment Summary – Commission Staff Working Paper accompanying the Proposal for a Directive amending Directive 2006/112/EC on the common system of value added tax, as regards the treatment of insurance and financial services*, SEC(2007) 1555, 28 November 2007

Commission of the European Communities (2007b), *Proposal for a Council Directive amending Directive 2006/112/EC on the common system of value added tax, as regards the treatment of insurance and financial services*, COM(2007) 747 final, 28 November 2007

Commission of the European Communities (2007a), *Proposal for a Council Regulation laying down implementing measures for Directive 2006/112/EC on the common system of value added tax, as regards the treatment of insurance and financial services*, COM(2007) 746 final, 28 November 2007

Commission of the European Communities (2006), *Consultation Paper on Modernising Value Added Tax Obligations for Financial Services and Insurances*

Commission of the European Communities (2000), *The TCA System – A Detailed Description*

Cnossen, S. (1999), "VAT Treatment of Financial Services" in G. Lindenorwa, S.O. Lodin and B. Wiman (eds.), *International Studies in Taxation: Law and Economics* (The Hague: Kluwer Law International, Series on International Taxation No. 21), 92-104

de la Feria, R. (2007), "The EU VAT treatment of insurance and financial services (again) under review" *EC Tax Review* 2, 74-89

de la Feria, R. and M. Walpole (2009), "Options for Taxing Financial Supplies in Value Added Tax: EU VAT and Australian GST Models Compared" *International and Comparative Law Quarterly* 58(4), 897-932

Ebrill, L., M. Keen, J-P. Bodin, and V. Summers (2001), *The Modern VAT* (Washington D.C.: International Monetary Fund)

Edgar, T. (2001), "Exempt Treatment of Financial Services Under Value-Added Tax: An Assessment of Alternatives" *Canadian Tax Journal* 49(5), 1133-1219

Ernst & Young (2009), *Design and Impact of the 'Option to Tax' System for Application of VAT to Financial Services*, Report prepared fro the European Banking Federation

Grambeck, H.M. (2009), "Outsourcing in the EU Financial Sector – Where Are We Heading?" *International VAT Monitor* 6, 462-473

Grubert, H. and J. Mackie (2000), "Must Financial Services Be Taxed Under a Consumption Tax?" *National Tax Journal* 53, 23-40

Henkow, O. (2008), *Financial Activities in European VAT – A Theoretical and Legal Research of the European VAT System and the Actual and Preferred Treatment of Financial Activities* (Austin / Boston / Chicago / New York / The Netherlands: Kluwer Law International, Eucotax Series on European Taxation)

HM Treasury (2007), *Tax Ready Reckoner and Tax Reliefs*

Hoffman, L.A., S.N. Poddar and J. Whalley (1987), "Taxation of Banking Services Under a Consumption Type, Destination Basis VAT" *National Tax Journal* 40, 547-554

Huizinga, H. (2002), "Financial Services – VAT in Europe?" *Economic Policy*, October, 499-534

IBFD (2006), *VAT Survey – Financial Services*, Survey on the recovery of input VAT in the financial sector carried out for the European Commission, December 2006

Jack, W. (2000), "The Treatment of Financial Services Under a Broad-Based Consumption Tax" *National Tax Journal* 53, 841-851

Jenkins, G.P. and R. Khadka (1998), "Value-Added Tax Policy and Implementation in Singapore" *International VAT Monitor* 9(2), 35-47

Kogels, H.A. (2003), "Consumption Taxes and Financial Services – General Report" *Cahiers de Droit Fiscal International* 88b, 21-41

Lejeune, I., D. Stevens and M. Killer (2009), "The International Direction in the VAT Treatment of Financial Services" in M. Lang *et al* (eds.), *Value Added Tax and Direct Taxation – Similarities and Differences* (Amsterdam: IBFD, 2009), 673-701

Pallot, M. (2007), "GST and Financial Services – Rating Zero-rating" in R. Krever and D. White (eds.), *GST in Retrospect and Prospect* (Wellington: Thomson Brookers), 163-178

Poddar, S.N. and M. English (1997), "Taxation of Financial Services Under a Value-Added Tax: Applying the Cash-Flow Approach" *National Tax Journal* 50, 89-111

OECD (2008), *Consumption Tax Trends* (Paris: OECD)

OECD (1998), *Indirect Tax Treatment of Financial Services and Instruments*

Pons, T. (2006), "Option for Taxation of Financial Services in France" *International VAT Monitor* 3, 182-185

PriceWaterhouse Coopers (2006), *Study to Increase the Understanding of the Economic Effects of the VAT Exemption for Financial and Insurance Services - Final Report to the European Commission*, 2 November 2006

Schenk, A. (2008), "Financial Services" in R. Krever (ed.), VAT in Africa (Pretoria: Pretoria University Press), 31-46

Swinkels, J. (2005), "Combating VAT avoidance" *International VAT Monitor* 4, 235-246

Swinkels, J. (2008), "The EU VAT Exemption for Cost-Sharing Associations" *International VAT Monitor* 1, 13-2

Thuronyi, V. (2003), *Comparative Tax Law* (Austin / Boston / Chicago / New York / The Netherlands: Kluwer Law International)

Zee, H.H. (2005), "A New Approach to Taxing Financial Intermediation Services Under a Value-Added Tax" *National Tax Journal* 53(1), 77-92

Appendix

A. Calculations of Irrecoverable VAT

First, we calculate the estimated value of purchases of intermediate inputs by the financial services industry from all other industries. The value of these purchases in 2006 Euros is given in column 1 of Table A1. If all these purchases were fully subject to the standard rate of VAT, we could then simply multiply column 1 by the standard rate of VAT in column 2 to get an estimate of VAT paid by the financial services industry on inputs.

But, several of these industries produce goods that are either zero-rated or exempt (financial services itself, and public administration and defence, education, health, community and social services) or charged at a lower rate (e.g. books, newspapers and magazines, domestic transport). We make an adjustment for this using the C-efficiency ratio. This is the ratio of actual VAT revenue raised to the potential VAT revenue if all consumption was taxed at the standard rate and there was no evasion (Ebrill *et al* (2001)). The latter is usually calculated as the standard rate of VAT for the country times the aggregate value of consumption. This C-efficiency ratio measures the shortfall in VAT revenue due to reduced rates, zero-rating and exemptions, and also evasion[31].

So, we multiply the product of column 1 and column 2 by the C-efficiency ratio[32] in column 3, giving a money estimate of VAT paid in the by financial services sector[33] in column 4. We multiply the figures in column 4 by the average non-recovery rate of VAT in the PWC study, 0.79 to get column 5. This is expressed as a percentage of total 2006 tax revenue in Column 6. It should be noted, however, that insofar as the pattern of consumption of inputs by the FS industry differs from insofar as the pattern of consumption of inputs by households in the aggregate (which it surely does), the correction for reduced rates, zero-rating and exemptions, and evasion will be imperfect.

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[31] For example, the C-efficiency ratio for the UK is 0.49.This is in line with the IFS calculation for the UK that 56% of consumers' expenditure is subject to VAT at the standard rate, 3% at the reduced rate, and the remaining 41% is zero-rated or exempt.

[32] Taken from OECD (2008), table 3.14.

[33] This methodology is obviously subject to the flaw that the pattern of consumption of intermediate inputs by financial services is generally different to the pattern of aggregate consumption. But, given data limitations, there is no satisfactory way of making further adjustments to deal with this problem.

Table A1: Estimates of Irrecoverable VAT*						
Country	Value of purchases of intermediate inputs, million Euro, 2006	Standard rate of VAT (%)	C-efficiency ratio	Estimated VAT paid on inputs, million Euro, 2006	Estimated irrecoverable VAT, million Euro, 2006	Estimated irrecoverable VAT, % of total tax revenue
	1	2	3	4	5	6
France	66907.39	19.6	0.51	6688.06	5283.57	0.64
Germany	85414.57	19	0.54	8763.53	6923.19	0.74
Italy	38064.40	20	0.41	3121.28	2465.81	0.39
Netherlands	15407.45	19	0.61	1785.72	1410.72	0.65
Spain	22262.86	16	0.56	1994.75	1575.85	0.43
UK	163622.63	17.5	0.49	14030.64	11084.21	1.48

* Notes to table. Purchases of intermediate goods by the financial services sector taken from latest available OECD input-output tables, various dates. These figures are in national currency. They are converted to Euros using nominal exchange rates from Eurostat corresponding to the date of the input-output table, and then adjusted for nominal GDP growth between the date of the table and 2006 using nominal GDP data from Eurostat.

B. National Practice in the Option to Tax

In Austria the option for taxation is only available to two types of transactions, namely the granting of credit, when credit is granted as payment for a taxed supply, and supplies of debts, liabilities and securities in connection with credit cards.[34] The wording of the Austrian provision is broad, thus including the possibility to opt to tax on a transaction by transaction basis, and irrespective of the type of consumer, i.e. it can apply both to B2B and B2C transactions. The option is also applicable to both domestic and cross-border supplies, and it is revocable without being subject to any specific formal requirements. Overall the Austrian option to tax is regarded as very flexible and thus commonly used, primarily by credit card companies (Ernst & Young (2009), pp. 33-34).

In Belgium the option to tax is restricted to transactions concerning payments and receipts, including negotiation, but excluding debt collection. It does, however, apply to both domestic and outbound supplies. The option is available on a supplier-by-supplier basis and irrevocable, i.e. once a supplier opts for taxation, VAT will apply to all

[34] Article 6(2) of the UStG 1994.

transactions made henceforward, including both B2B and B2C supplies.[35] The fact that the option is irrevocable and must be applicable to all supplies, including those made to costumers who cannot deduct VAT, has lead some to conclude that it effectively deters most financial services suppliers from availing of it (Henkow (2008), p. 335). Yet, it has also pointed out that, larger banks whose dealings are primarily with business customers have generally opted for taxation, whilst banks engaged in private banking have tended not to make use of the option. Moreover, there is a trend at present whereby multinationals set out a separate entity in Belgium which functions as a bank for group companies (Ernst & Young (2009), p. 35).

In Estonia taxable persons are allowed to opt for taxation of normally exempt financial services where certain conditions are met (IBFD (2006), p. 30).[36] The option cannot be made on a transaction-by-transaction basis, but rather must apply to all services of the same nature – i.e. by category of services – irrespectively of the VAT status of the customer. The option only applies to domestic transactions, and will not apply to cross-border situations. The supplier wishing to avail itself of the option must notify the tax authorities, and once in place the option must be in place for a period of at least 24 months. The option to tax does not appear to be very popular, with most financial institutions reluctant to use it, reportedly due to the requirement to apply on a category-by-category basis irrespectively of the status of the customer (Ernst & Young (2009), pp. 38-40).

In France financial services suppliers are entitled to opt for taxation in respect of all financial services, with the exception of those explicitly excluded from the French Tax Code, such as the granting of loans, provision of guarantees, intermediary services relating to the issue of or transactions in securities and foreign currency. Whilst until 2004 the scope of the option to tax was restricted (Cnossen (1999), pp. 98-99), its scope has been substantially widened by significant amendments introduced that year.[37] One of the most significant amendments is that the option is now revocable after a period of five years, albeit subject to strict conditions. Despite these, revocability is an important new

[35] Article 44 of the Belgian VAT Code and Circular 79/018.
[36] Article 16(3) of the Estonian VAT Act.
[37] Article 85 of the Amended Finance Law 2004 No. 2004-1485 of 30 December 2004.

feature, in particular in light of the fact that the option in France must be made on supplier-by-supplier basis: once the option is made, it will apply to all financial services, irrespective of the status of the customer.[38] Historically most banks and financial institutions in France availed of the option to tax. However, since 2005 when revocability was made possible, many financial institutions have availed of that possibility perhaps to the acknowledged complexity of the French option (Ernst & Young (2009), pp. 48-51).

In Germany the option is available as regards all exempt financial services, but solely on B2B transactions.[39] The option is available on a transaction-by-transaction basis, i.e. it is possible to opt for a single supply, with no requirement to opt for all transactions or a given category, and it is revocable. In addition there are no formal requirements involved in the decision to opt to tax a specific transaction. The option can apply to cross-border transactions, but only where the customer is establishing in a Member State that also allows an option to tax. In practice this is one of a few limitations in place, with the German model having therefore been hailed as the most flexible of the option systems, providing for the greatest input tax relief for financial service providers (Henkow (2008), p. 337). Yet, despite this flexibility the take-up on option to tax in Germany is reportedly low, with most of the German private banks said to have not availed of the option. Whilst there seems to be a growing trend within the public banking sector to opt to tax, overall the take-up is still small (Ernst & Young (2009), p. 43).

In Lithuania, suppliers of most exempt financial services may chose to levy VAT on those services, insofar as B2B transactions are concerned.[40] Excluded from the scope of the option are dealings in shares (Article 135(1)(f)) and fund management activities (Article 135(1)(g)). The option to tax must be valid for at least two years, and exercised in respect of the taxable persons' every transaction, thus excluding the possibility of opting on transaction-by-transaction basis (IBFD (2006), p. 56). The treatment of cross-border transactions is unclear. Perhaps due to this unclear nature, together with the lack

[38] For a comprehensive description of the French option to tax see Pons (2006).
[39] Article 9(1) of the German VAT Act.
[40] Article 28 of the Lithuanian VAT Act.

of flexibility of the option clause, in practice banks and others financial institutions in Lithuania have not often availed of this option (Ernst & Young (2009), p. 47).

C. Simulations of the Indirect Effect on Tax Revenue of Opting In

To perform the simulations, we extend the model of Section 4.3 as follows. Assume that firms are perfectly competitive, with identical technologies, and choose units so that a unit of financial services requires b units of intermediate inputs, and 1 unit of inputs that are not subject to VAT e.g. labour i.e. $a_i = 1,\ b_i = b$. Similarly, one unit of final output is produced from B units of intermediate inputs, and 1 unit of inputs that are not subject to VAT e.g. labour. Demand for final output is $Q(q) = Aq^{-\varepsilon}$, where q is the price of final output, and ε is the elasticity of demand. Total tax revenues under opting out and in are then:

$$R_{OUT} = \left(bp * t + \frac{tq_{OUT}}{1+t} \right) Q(q_{OUT}), \quad R_{IN} = \left(\frac{t}{1+t} \right) q_{IN} Q(q_{IN}) \qquad \text{(C1)}$$

Where q_{OUT}, q_{IN} are the competitive prices of final output in each case. If opting in is allowed, according to the analysis of Section 4.2.1., it will always occur, so, the revenue loss from allowing opting in is

$$R_{OUT} - R_{IN} = bp * tQ(q_{OUT}) - (q_{IN} Q(q_{IN}) - q_{OUT} Q(q_{OUT})) \frac{t}{1+t} \qquad \text{(C2)}$$

The first effect is the direct effect, and the second effect is the indirect effect. Thus, using the fact that final demand is iso-elastic, the absolute value of the indirect effect on tax revenue as a percentage of the total, as reported in Table 3, can be calculated as

$$\frac{\left| [(q_{IN})^{1-\varepsilon} - (q_{OUT})^{1-\varepsilon}] \frac{t}{1+t} \right|}{bp * t (q_{OUT})^{-\varepsilon} - [(q_{IN})^{1-\varepsilon} - (q_{OUT})^{1-\varepsilon}] \frac{t}{1+t}} \qquad \text{(C3)}$$

Next, given perfect competition, prices of the financial service (p) and final output (q) are equal to unit costs, giving:

$$p_{OUT} = bp^*(1+t) + w, \quad q_{OUT} = (Bp_{OUT} + w)(1+t) \tag{C4}$$

$$p_{IN} = (bp^* + w)(1+t), \quad q_{IN} = (B\frac{p_{IN}}{1+t} + w)(1+t) \tag{C5}$$

Then, (C4) and (C5) give formulae for q_{OUT}, q_{IN} as follows:

$$q_{OUT} = bBp^*(1+t)^2 + w(1+B)(1+t) \tag{C6}$$

$$q_{IN} = Bbp^*(1+t) + w(1+B)(1+t) \tag{C7}$$

Note that $q_{IN} < q_{OUT}$ due to the fact that the input to the FS sector is no longer double-taxed following opting in.

So, to compute (C3), using (C6), (C7), we need to choose values for b,B, p* and w, and to do this, we proceed as follows. We assume that the sector purchasing inputs from the FS sector is manufacturing. Then

$$\frac{Bp_{OUT}}{Bp_{OUT} + w} = \frac{Bp_{OUT}Q}{(Bp_{OUT} + w)Q} = \frac{value\ \ of\ \ FS\ inputs\ to\ manufacturing\ \sec tor}{value\ of\ \ manufacturing\ \sec tor\ output}$$

$$\frac{bp^*}{bp^* + w} = \frac{bp^* BQ}{(bp^* + w)BQ} = \frac{value\, of\ \ inputs\ to\ FS\ \ \sec tor}{value\ of\ \ FS\ \sec tor\ output}$$

From the Summary Supply and Use tables for the UK, 2006, we can evaluate the RHS ratios. This gives

$$\frac{bp_{OUT}}{bp_{OUT} + w} = \frac{32154}{448147} = 0.071, \quad \frac{bp^*}{bp^* + w} = \frac{230976}{595631} = 0.387$$

Finally, w.l.o.g, set p*=w=1. Then, we can solve these for b=0.387, and $\frac{B(b+1)}{B(b+1)+1} = 0.071 \Rightarrow B = 0.046$.