
VAT IN THE PUBLIC SECTOR AND EXEMPTIONS IN THE PUBLIC INTEREST

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INFORMED DECISIONS



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PREFACE

The European Commission has asked Copenhagen Economics to conduct additional work to the study "VAT in the public sector and exemptions in the public interest", TAXUD/2011/DE/334, which was carried out by Copenhagen Economics and KPMG (Final report of 1 March 2011)¹ on analysing the impact of the current Value Added Tax (VAT) rules applicable to the public sector, to identify options for alternative rules and to assess their impact. The additional work (this study) will simulate the impact of variants of three options previously identified, which now will include postal services for modelling purposes.

The three options are the following:

1. Full taxation option in its alternative that a liability to tax requires supplies against consideration
2. Refund system
3. The option according to which the special rules relating to public bodies (Article 13 of the VAT Directive) would be deleted, while keeping tax exemptions in the public interest.

Some parts of the report text in chapter 2 and chapter 4 are repeated from the previous study, Copenhagen Economics and KPMG AG (2011). These points may not be completely updated.

The study has been performed over the period January 2012 – December 2012. The study has been followed by a working group from DG Taxud consisting of Ingmar Beuth, Patrice Pillet, Marco Fantini, and Kristina Vitkauskaite.

¹ http://ec.europa.eu/taxation_customs/common/publications/studies/index_en.htm

EXECUTIVE SUMMARY

In this chapter we first present the background for the study. Then we present the findings.

Background

This study is an extended version of a previous study done by Copenhagen Economics and KPMG AG in 2011. The extensions have been made on request from the European Commission, DG Taxud.

One important reason for the request was the need to include the postal sector in the study. In 2003 the European Commission came forward with a proposal to amend the (former) Sixth VAT Directive² regarding the VAT treatment of the postal sector, with the objective to tax postal services and sales of stamps³. In light of this proposal it was decided not to include the postal sector in the Copenhagen Economics and KPMG study of 2011.

After several years of negotiations in Council, no consensus was reached on this proposal and the Council agreed in December 2010 that the only realistic way forward was the status quo. Although in the meantime, the European Court of Justice (ECJ) clarified the scope of the tax exemption for postal services, the situation remains unsatisfactory and the option of removing the exemption applicable to postal services completely still needs to be considered.⁴ However, whether or not to include postal services in the scope of a possible new proposal on public services can only be decided on the basis of a detailed impact analysis. Hence, it is now necessary to include the postal sector in the simulations and update the results of the study accordingly.⁵

In addition, considering the outcome of the public consultation launched in December 2010 with respect to the Green Paper on the future of VAT⁶ and the 2011 discussions with the Member States within the Group on the future of VAT, further investigations are now needed on the basis of the Copenhagen Economics'/KPMG Study of 2011. The aim is to assess the impact of certain variants of options which were identified by the final report of 1 March 2011, before a concrete legislative proposal can be envisaged in 2013.⁷

The main reasons for the present study have been:

² Sixth Council Directive of 17/05/1977 on the harmonization of the laws of the Member States relating to turnover taxes – Common system of value added tax: uniform basis of assessment (77/388/EEC), OJ L 145

³ COM(2003)234

⁴ ECJ, judgment of 23/04/2009, C-357/07, TNT Post UK Ltd.

⁵ This paragraph is partly copied from the terms of reference of the service contract.

⁶ Green Paper on the future of VAT: towards a simpler, more robust and efficient VAT system (COM(2010)695).

⁷ This paragraph is copied from the terms of reference of the service contract.

- The addition of the postal sector for modelling purposes to the five public core sectors which were modelled in the previous study (waste/sewage disposal, education, cultural services, hospitals and broadcasting)
- The examination of variants of three options previously identified by the study, which are:
 - Full taxation option with its alternative that a liability to tax requires supplies against consideration. In the first variant of this option, the VAT rates of previously exempt or non-taxable services are set to the standard VAT rate. In the second variant, the VAT rates of the previously exempt or non-taxable services are set to the lowest reduced rate in the individual Member State or 5% if no reduced rate exists. Full taxation scenarios are captured in the model by assuming that effective competition between public bodies and private sector bodies do exist.
 - Refund system. In the first variant, all of the exempt or non-taxable services qualify for a refund of their input VAT expenditure. In the second variant, we assume this refund is only available for health, education, public administration and cultural service sectors.
 - The option according to which the special rules related to public bodies (Article 13 of the VAT Directive) would be deleted, while keeping a number of current exemptions in the public interest. In the first variant of this option, the previously exempt or non-taxable services become taxable at the standard VAT rate. In the second variant, the services become taxable at the lowest reduced VAT rate applicable in the Member States or 5% if no reduced rate exists. Additionally, a separate analysis was carried out as regards the impact for each sector which was modelled in that option (waste/sewage management, broadcasting, postal services); this has been done in order to enable an informed decision on the final list of sectors to be taxed which would make it possible to also assess the impact of a limited sectorial reform, for instance by extending the list in Annex I of the VAT Directive.

A methodological improvement has been made regarding the economic modelling used for the assessment of the economic impact. In this assessment it is now taken into account that outputs are only taxed if they are carried out against consideration. Furthermore, we take into account that existing refund mechanism available in the EU Member States already do not necessarily cover all the sectors that we cover in the current study. This means that in our modelling some Member States that already have a refund mechanism in place will, nevertheless, be affected by the introduction of a refund mechanism if the refund mechanism introduced covers more sectors than the refund mechanism already in place in that Member State.

Findings

The essential piece of European legislation establishing the common system of VAT is the Common VAT System Directive (CVSD or VAT Directive, we use them interchangeably). It is designed in such a manner that VAT should only be a burden on final consumption. When incurred during the process of production and distribution of goods and services, VAT should be deducted.

Public and private activities may be taxed differently in Member States. Often public activities will be tax exempt or non-taxable, whereas private activities will be taxable. However, there are many exceptions to this 'rule'. For example, private hospital services are not taxed, whereas public waste management activities are sometimes taxed and sometimes not, depending on industry specific circumstances or/and the Member State concerned. In many of the cases where differential VAT treatment exists between public activities and private activities, there is a risk of distortion of competition between the public and private activities. The distortion will reduce economic efficiency and welfare.

Distorted competition may primarily show itself in two ways:

First, the distortion may affect the input side as a reduced incentive of public entities to outsource support services/back office-services, such as cleaning services, IT-service, accountancy and facility management. The reason is that if the public entity carries out the support service in-house with own staff, no VAT is added to the value of this in-house produced service. This is not the case if the public entity decides to outsource the same support service to a private provider, as the private provider will add VAT to its invoice; VAT that the public entity cannot recover.

Second, the distortion may affect the output side through reduced competitiveness of private entities vis-à-vis VAT-exempt entities. The reason is that if an exempt public and a non-exempt private provider of a service compete in the same market, the public provider will have the advantage of not charging its' customers VAT. However, the private provider will have to add VAT to its' price. Hence, the public provider will have a competitive advantage over the private provider of the same service (if the customers are not entitled to deduct the input-VAT). This is of course only a problem when public and private providers actually compete.

We find that these distortions do indeed exist as a result of differential VAT treatment. So how to eliminate them best?

A number of EU Member States, eight in total, already have refund schemes in place that allow public entities to recover input VAT when outsourcing support services. This eliminates the first (input side) distortion. Inspired by these existing schemes, we have estimated the potential eco-

conomic gains if the remaining EU Member States adopted refund schemes open to public and private bodies operating in a selection of sectors. We find an EU wide potential economic gain of 0.02 per cent of Gross Domestic Product (GDP) corresponding to a little more than 2 billion euro. The gain comes from increased efficiency in production of support services, as public entities begin to outsource a larger share of in-house produced input service to private providers who are able to produce the services more efficiently due to, for instance economies of scale and competitive pressure. The gain may be larger, if public entities also start to consider outsourcing support services beyond the ‘traditional’ ones, such as cleaning and IT-services. Implementing such refund schemes across the EU would imply an initial cost for the public budgets of € 134 billion which would require an increase in VAT rates of approximately 18 per cent (not percentage points) to offset. However, the majority of the cost (€ 99 billion) comes from public entities recovering the input-VAT, which constitutes an intra-governmental transfer and not an actual cost. If we focus only on exempt private entities and charities being able to recover VAT under a refund scheme, the public cost is € 35 billion (private is € 29 billion and charities is € 6 billion) requiring an increase in VAT rates of 4 per cent (not percentage points) to offset.

Refund schemes do not eliminate the second output side distortion. Furthermore, we find evidence that refund schemes may imply higher compliance costs arising from additional public administrative resources, required to administer such schemes and additional costs for exempt entities from complying with them. We do not know the exact size of compliance costs from refund schemes, but they do ultimately reduce the initial economic gain.

Given these drawbacks of a refund type scheme we recommend to look towards a full taxation solution. In this solution, VAT is applied to public entities’ output, and at the same time the solution allows for public entities to fully deduct their incoming VAT. In this way, public and private entities are treated equally regarding VAT. This eliminates the input and output distortions.

We find potential economic gains in our economic model of *up to* 0.34 per cent of GDP, corresponding to almost € 38 billion from a full taxation solution for all Member States in the covered sectors. By removing a significant distortion in the economy, we end up utilising resources better, thus spurring growth.

This is are large numbers compared to the 0.02 per cent from eliminating the first (input side) distortion alone. The full taxation solution is, in many ways, similar to the current system in place in New Zealand, which is often mentioned as a best practice case in literature.

The EU27-wide impact on VAT revenue of the full taxation model for the covered sectors could lead to an increase of up to € 80 billion, which could then be offset by a proportional decrease of

VAT rates of around 10 per cent (not percentage points). For example, the Germany standard rate would drop from 19 per cent to 17.1 per cent.

The public sector employment falls in both the full taxation model and the refund system with a range of -0.58 to -1.14 percentage point. However, the loss of such public sector jobs will be fully compensated in the medium to long-term by job creation in the private sector.

The introduction of a full taxation model will lead to a significant risk of VAT circumvention by re-designing budgeting and remuneration systems within the public sector or between the public sector and non-profit organizations. In principle it is possible for public bodies to avoid VAT even in the full taxation model we are considering, because they can switch from fee-for-service budgeting and remuneration systems towards general subsidies. This would cause the services to be delivered without consideration, and hence to be outside the scope of VAT. This is what we refer to as risk of circumvention in public sector bodies. To deal with the risk of circumvention by public bodies in the EU, the scope of consideration shall be revisited. Consideration for a supply can be defined very broadly to include even taxes if they are directly linked to the supply. For example, Canada includes all amounts in the definition of consideration other than prescribed indirect taxes such as a retail sales tax, or the Goods and Services Tax (GST). New Zealand defines the taxes levied by local bodies as consideration for supplies made by them.

Both the full taxation model and the refund system will benefit European small and medium enterprises (SMEs). The vast majority of European SMEs can be found in the business services sector, where they compete with each other and with public sector self-supply. When the public sector is relieved of expenditure on input VAT, it creates a more balanced level playing field between private business services and public sector self-supply. This increases demand for SMEs' services and provides opportunities for them to grow. This conclusion, however, does not apply for sectors where SMEs currently carry out tax exempt activities. An example is General Practitioners in the health care sector. They will be liable to pay VAT under full taxation.

On a final note, a full taxation solution where the public and private services are taxed identically is 'future proof', in the sense that whatever developments may occur in how public and private entities compete, this solution automatically ensures a level (VAT)-playing field between them.

The findings of our analysis are summarized in summary table 1 and summary table 2. Summary table 1 contains a qualitative assessment of the impact of different types of reforms. Summary table 2 contains the results of the quantitative modelling analysis using the Copenhagen Economics Vat Model (CEVM).

Summary Table 1: Summary of qualitative model results, percentage change from baseline of current differentiated VAT treatment

Category	Full taxation (see section 5.1 for more detail)	Refund system (see section 5.2 for more detail)	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest (see section 5.3 for more detail)
Distortion of competition	No distortion of competition	Distortions on output side	Distortions of competition both on input and output side
Barriers to market entry	No	Barriers to entry in supportive market (back office services) will be reduced	No
Level and structure of investment	Investment from public sector will be discouraged while private sector investment goes up	Investment and outsourcing are encouraged	Investment from private sector encouraged while public sector investment discouraged
Level and structure of employment	Shift from public sector to private sector	Shift from public sector to private sector	Shift from public sector to private sector
Efficiency in public service	More efficiency	More efficiency	More efficiency
Impact on tax revenues	Positive impact as taxes are levied on non-taxable /exempt public sector output	Loss. The loss is due to refunding input VAT to private entities and charities.	Positive impact as taxes are levied on non-taxable /exempt public sector output

Category	Full taxation (see section 5.1 for more detail)	Refund system (see section 5.2 for more detail)	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest (see section 5.3 for more detail)
Welfare gains	Positive	Positive	Positive
Consumer prices	Go up as first round effect because taxes are added to public output	May go down as public production is carried out more efficiently and thereby cheaper	No to small increase in consumer price
Tax compliance cost	Low	Low (to medium)	Low
Impact on charities	Substantial increase in VAT paid by charities, if charities render their service against consideration	Positive as the VAT expenditure of charities will be eliminated	No impact
Risk of circumvention	Significant	No	Significant
Impact on SMEs	Positive as distortion of competition between public and private sector is removed	Positive as public sector's self-supply supportive activities will be reduced	Smaller positive impact as the supply bias of public sector will not be removed completely
Comparison with previous study results	Larger impacts as full taxation of postal sector is included in this study	Larger impacts as we cover more sectors and all exempt bodies whether public, private or charity.	Larger as full taxation of postal sector is included in this study

Source: Copenhagen Economics based on modelling result

Summary Table 2: Summary of quantitative model results, percentage change from baseline of differentiated VAT treatment of public and private sector

Category	Full taxation		Refund system		Deletion of Article 13 CVSD while keeping exemptions in the public interest		Deletion of Article 13 CVSD while keeping exemptions in the public interest, variant 1			Deletion of Article 13 CVSD while keeping exemptions in the public interest, variant 2		
	Variant 1	Variant 2	Variant 1	Variant 2	Variant 1	Variant 2	Only broad-casting taxed	Only postal sector taxed	Only waste disposal taxed	Only broad-casting taxed	Only postal sector taxed	Only waste disposal taxed
Change in GDP pct. (billion Euro)	0.34 (37,77)	0.32 (35,35)	0.02 (2,04)	0.02 (1,98)	0.01 (1,29)	0.01 (0,81)	0.00 (0,29)	0.01 (0,89)	0.00 (0,09)	0.00 (0,08)	0.01 (0,67)	0.00 (0,05)
Change in public core services share of total output, pct.-points	-0.10	-0.07	0.00	0.00	-0.03	-0.03	-0.01	-0.02	0.00	-0.01	-0.02	0.00
Change in private core services share of total output, pct.-points	0.04	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.00	0.01	0.02	0.00
Change in private business services input share to pub. sec, pct.-pts.	2.56	2.54	3,68	3,63	0.07	0.05	0.00	0.06	0.01	0.00	0.05	0.01
Change in public business services input share to public sectors, pct.-points	-2.54	-2.51	-3,94	-3,87	-0.09	-0.07	-0.01	-0.07	-0.01	0.00	-0.06	-0.01

Change in public sector output, pct. points	-0.68	-0.47	0.44	0.40	-0.25	-0.26	-0.06	-0.17	-0.02	-0.06	-0.19	-0.02
Change in public sector employment, pct. (Thousand persons)*	-1.14 (493.1)	-1.02 (422.2)	-0.58 (250.9)	-0.58 (249.8)	-0.17 (74.3)	-0.17 (74.9)	-0.03 (14.3)	-0.12 (53.4)	-0.02 (6.6)	-0.03 (11.6)	-0.13 (57.7)	-0.01 (5.8)
Change in wages pct.	0.25	0.25	0.24	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VAT rate calibration of revenue balance (billion Euro)	-10.44 (80.38)	-6.60 (50.82)	17.8 (-134)	17.4 (-132)	-0.49 (3.77)	0.04 (-0.31)	-0.11 (0.85)	-0.33 (2.54)	-0.05 (0.38)	0.06 (-0.46)	-0.02 (0.15)	0.00 (0.00)
VAT rate calibration of revenue balance considering only private bodies and charities (billion Euro)	-	-	4.1 (-35)	4.1 (-35)	-	-	-	-	-	-	-	-
Revenue costs split on public (pu), private (pr) and charities (ch), billion Euro			Pu: 99 Pr: 29 Ch: 6	Pu: 97 Pr: 29 Ch: 6								

Note: CVSD is equivalent to VAT Directive.

*Total public sector employment is calculated for EU27 in 2010 except for 12 countries- Netherlands(2005), France(2006), Malta(2006), Sweden(2007), Czech Republic(2007), Portugal (2008), Romania(2008),Finland(2008), Greece(2008),Bulgaria (2009), Hungary (2009), Italy (2009). The reduction in public employment will be offset by an increase in private employment in the medium to long term.

Public sector employment-consists of general government sector, which is the sum of three sectors (government units, social security funds and other non-profit institution) and publicly owned enterprises. Data for Austria, Belgium, Hungary, Portugal and Sweden refer only to general government sector public employment. For more see <http://laborsta.ilo.org/applv8/data/sectore.html>

Full taxation scenarios are presented by assuming that effective competition between public bodies and private sector bodies exists. The size of compliance cost under refund system is assumed to be negligible in these calculation, which means they have been set to zero in the model.

Source: Copenhagen Economics based on modelling result. *Public sector employment for EU27 is taken from OECD based on ILO-Labour statistics database

Considering summary table 2, some findings stand out as noteworthy. First of all the possible GDP gains of more than 0.3 per cent from full taxation, compared with the 0.02 from a refund system and close to zero per cent from deletion of Article 13 while keeping important exemptions.

Second, it is noteworthy that it makes little difference to public finance whether postal services, waste disposal, and broadcasting are covered by a refund scheme. At first this may seem surprising. However, the reason is straightforward: The three sectors make up a small part of the economy, are for a large part already taxable and in some Member States they are partly already covered by refund schemes.

Chapter 1 MAIN FINDINGS

1.1. BACKGROUND AND SCOPE

This report is an extension of the Copenhagen Economics and KPMG study of 2011, which was commissioned by DG Taxud, on the economic consequences and possible reforms of the EU VAT-treatment of the public sector (including the VAT treatment of public bodies and VAT exemptions in the public interest). The initial study described a range of economic problems which arise as many public sector activities are outside the scope of VAT or VAT exempt. The initial study also made a quantitative assessment of the economic gains for the EU for a range of different options for a VAT reform. The initial study, however, did not consider the VAT treatment of postal services. Furthermore, the range of reforms considered did not encompass variants where the previously non-taxable or exempt activities are made subject to reduced VAT rates.

In this report we include the postal services sector in the analysis, and we analyse variants of three different types of reform options for the EU VAT treatment of the public sector:

- *Full taxation.* The main change introduced with a full taxation system would be a fundamental alteration of the taxation of output supplies. In the public sector, all supplies, which are currently treated as non-taxable (Art. 13 of the VAT Directive) or tax-exempt (Art. 132 of the VAT Directive) would be treated as taxable and non-exempt. Special rules leaving discretionary power to the Member States (e.g. Art. 371 ff. of the VAT Directive) would be deleted if they were concerning the public sector. The taxation of the output supplies leads to the possibility to deduct input VAT pursuant to Article 168 of the VAT Directive. Only services delivered against a consideration and which qualify as economic activity pursuant to Article 9 of the VAT Directive are to become taxable. We consider two variants of this option. In the first variant, the previously non-taxable or exempt activities become taxable at the standard VAT rate of the relevant Member States. In the second variant, the activities become taxable at the lowest reduced rate currently applicable in the respective Member State (must be at least 5 per cent) or 5 per cent respectively, if a Member State currently does not apply a reduced VAT rate (Denmark).
- *Refund system.* Bodies who perform the non-taxable or exempt activities gain a refund from the public sector of the VAT expenditure on their purchases. We consider two variants of this option. In the first variant, the refund system encompasses public administration and the following industries: waste and sewage disposal, broadcasting, postal services, education, cultural services, and health care. In the second variant, only public administration, education, cultural services and health care are encompassed by the refund system. In this second variant, a distinction is made between public providers, private profit-making providers and non-profit organizations; in other words, it has

been examined what is the share of the said kind of operators in the VAT refunded under the refund system .

- *Deletion of Article 13 of the VAT Directive while keeping tax exemptions in the public interest.* In the first variant the previously out of scope activities become taxable at the standard VAT rate of the relevant Member States. In the second variant, the activities become taxable at the lowest reduced VAT rate currently applicable in the respective Member State (must be at least 5 per cent) or 5 per cent respectively, if a Member State currently does not apply a reduced rate (Denmark).

1.2. DIFFERENTIAL VAT TREATMENT OF PUBLIC AND PRIVATE BODIES

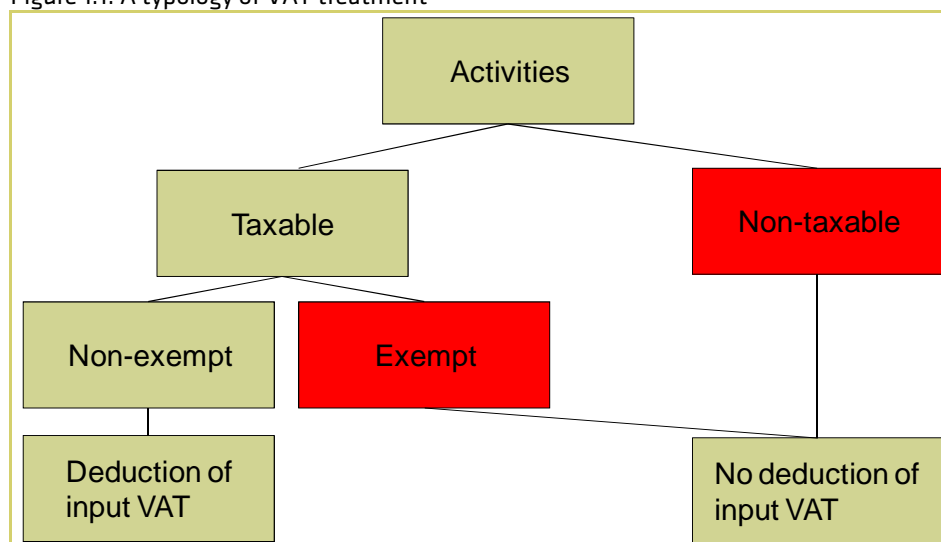
In order to ensure the establishment and the functioning of the internal European market, Article 113, Treaty on the Functioning of the European Union, allows the harmonisation of VAT Law.

The essential piece of European legislation establishing the common system of VAT is the Common VAT System Directive (VAT Directive). Designed as a general tax on consumption exactly proportional to the price of goods and services, the European VAT System allows the deduction of the amount of VAT borne directly out of the various cost components of the production and distribution process before final consumption (deduction of input VAT). This mechanism exists in order to ensure the fiscal neutrality of the VAT system despite the length of the production chain. In other words, VAT should only be a burden on final consumption. When incurred during the process of production and distribution of goods and services, VAT should be deducted.

However, public and private activities may be taxed differently in Member States. As public activities are often non-taxable and private activities are taxable, there is a risk that the VAT system may distort the competition between private and public activities.

The distortion of competition may either come from a public sector activity being taxable but exempt, or it may come from a public sector activity being non-taxable, cf. the marked boxes in Figure 1.1.

Figure 1.1: A typology of VAT treatment



Source: KPMG AG.

The distortion may affect the input side by a reduced incentive of public sector bodies to outsource support activities, such as cleaning services, IT-service, accountancy and facility management. The reason is that if the public body carries out the support service in-house with own staff, no VAT, which the public body cannot recover, is added to the value of this in-house produced service. This is not the case if the public body decides to outsource the same support service to a private provider, as this provider will add VAT to its invoice; VAT that the public body cannot recover, cf. Figure 1.2

Figure 1.2: Choice between outsourcing and self-supply

Premises: VAT rate applicable – 20 %

	Net price	VAT	Input costs
Outsourcing	100 EUR	20 EUR	120 EUR
Self-supply	110 EUR	0 EUR	110 EUR

Preference of public body

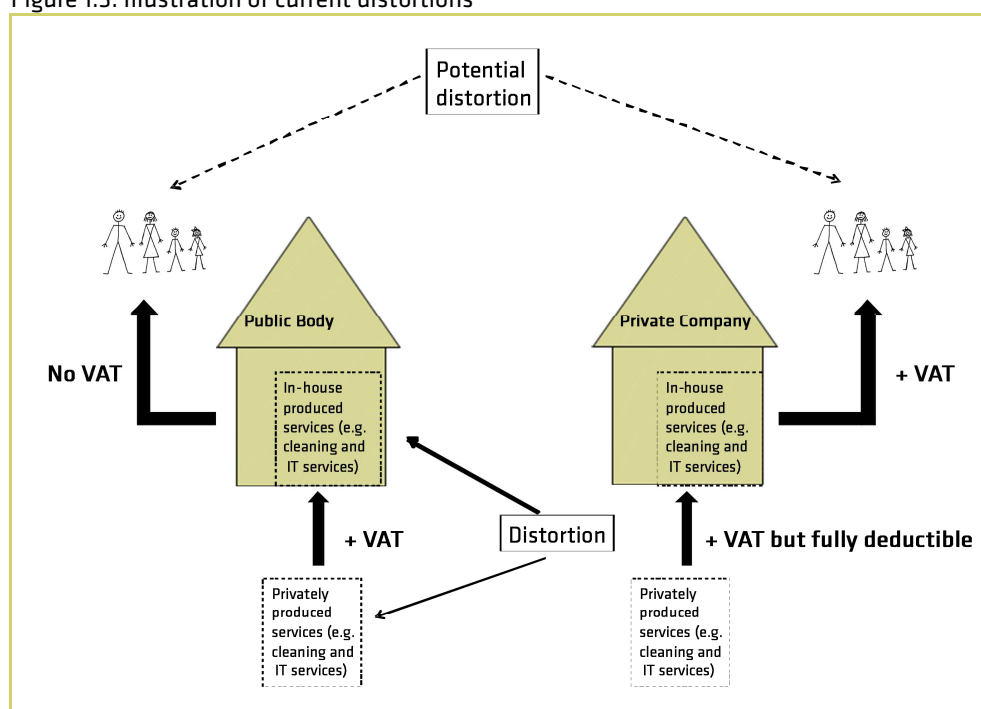
Public body prefers less efficient alternative because of lower total input costs.
The self-supply will always be preferred over outsourcing until the increased costs due to inefficiency of self-supply exceed the total price of outsourced supply (i.e. 120 EUR)

Source: KPMG AG

The input side distortion is illustrated in the bottom part of Figure 1.3, showing that for the public sector a distortion exists between in-house public produced support services and out-

sourced private produced support services. For the private sector (right half of the figure depicting the flows in a private company), we assume that this distortion is not present, as the private company is able to deduct the incoming VAT.

Figure 1.3: Illustration of current distortions



Note: The figure illustrates where distortions may arise in a given Member State without compensation schemes in place which serve to eliminate the distortions. The figure does not, however, depict an actual Member State or industry.

Source: Copenhagen Economics

The distortion may also affect the output side through reduced competitiveness of private sector entities vis-à-vis public competitors. This is illustrated in the top half of the figure. The reason is that if, for instance a public and a private provider of waste management services compete in the same market, the public provider will have the advantage of not adding VAT to its price. In contrast, the private provider of waste management service will have to add VAT to its price. Hence, the public provider of waste management service may have a competitiveness advantage over the private provider of the same service. This is of course only the case when public and private providers compete on the same market.

To what extent does this differential treatment reduce economic efficiency? And what are the available solutions and their potential impact on economic efficiency?

These are questions that we try to answer in this report. We start out with identifying the legal issues arising from the current treatment of public entities in regarding VAT (1.3). We then proceed with discussing how differential VAT treatment may create a loss of efficiency from lack of public outsourcing of input services, such as cleaning services, to private providers (1.4), and from lack of outsourcing of output services, such as waste disposal (1.5). In subchapter 1.6, we discuss the importance of compliance costs. Finally, in subchapter 1.7, we present concrete solutions that may allow Member States to reap economic gains from less distortion between public and private entities, and we quantify these potential economic gains.

1.3. LEGAL CHALLENGES

The comparison of the adoption of the VAT Directive regarding the public sector among the Member States has shown a large variety in the adoption of EU provisions as well as the application of the national law. In this respect a major problem proved to be the diverse understanding of the terms ‘public body’ and ‘public law’ among the Member States. As a result the same activity may, for example be considered to be non-taxable in one Member State, whereas it would be treated as taxable in another Member State. In addition to these interpretative differences, a lack of harmonisation is caused by the various stand still clauses applicable only to some Member States and the provisions of the VAT Directive, which leave the adoption at the discretion of the respective Member State, such as Article 133 of the VAT Directive.⁸

According to our assessment based on the legal and economic analysis, the major problems of the current VAT treatment are its high complexity and legal uncertainty, as well as its distortive effects in relation to economic decisions of the public sector bodies and the competition with the private sector.

As regards to the legal uncertainty of the system, it must be noted that it aggravates many of the aforementioned problems. A lack of certainty about the tax consequences of specific transactions will make economic operators reluctant to undertake new investments or extending and adapting existing activities.⁹ Furthermore, it creates additional entry costs for private actors when trying to challenge established public incumbents, creates compliance costs, as well as administration costs and encourages the use of complex structures or tax schemes.¹⁰

⁸ In chapter 2 we present overview tables of the results of the legal analysis for each sector and Member State.

⁹ C. Amand (2006), ‘VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?’, *International VAT Monitor*: 433-443, at 435.

¹⁰ C. Amand (2006), ‘VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?’, *International VAT Monitor*: 433-443, at 435.

In order to counter the distortions caused by the current VAT treatment, some Member States have introduced a system designed to compensate public bodies for their non-deductible input VAT. However, the legal analysis has shown that the compensation systems in practice vary considerably from Member States to Member State, and sometimes even cause additional distortions.

The legal comparison of the EU VAT treatment of the public sector with selected OECD countries has shown different approaches in order to deal with public sector bodies. The Canadian rebate system basically follows the same approach as the Member States with a compensation system, by granting rebates to public bodies which cannot deduct input VAT. The most radical approach to taxation of the public sector is present in New Zealand and Australia, which virtually treat all activities of the public sector as taxable, with the right to deduct input VAT. Unlike Australia, the New Zealand system grants extremely few exemptions for public sector bodies and consequently comes very close to a full taxation of the public sector. Therefore, it has frequently been advocated as remarkably neutral and favourable system of VAT taxation of the public sector. However, the legal analysis showed that the full taxation approach also involves conceptual difficulties, particularly the identification of explicit consideration for public supplies.

1.4. OUTSOURCING SUPPORT SERVICES

Public entities that are either taxable but exempt or non-taxable may have economic incentives to keep production of back office or support services in-house, solely due to their status as either exempt or non-taxable. These services could, for example, be cleaning services, IT-services and HR-management. The reason is that if a public entity produces support services in-house, it is not paying any VAT on the value of the support function. But if the same public entity chooses to outsource the same support services to a private entity, the private entity will add VAT, which the public entity must pay but cannot deduct.

Hence, for a public entity to outsource support functions, expected monetary gains must be so large as to offset the added cost from VAT. As this is not always the case, differential VAT treatment works to reduce economic efficiency through 'too little' outsourcing.

The same logic applies to labour saving investment decisions: A public entity will choose *not* to invest in new technology that could substitute in-house labour, even if the expected gains from e.g. lower labour costs are larger than the investment. The reason is that the public entity must pay VAT on the investment, which it cannot deduct, whereas VAT is not added to in-house labour. The consequence is too little investment, leading to lower growth in public productivity than without the differential VAT treatment.

Moreover, public entities may choose suboptimal organisational structures. For example, the forming of shared services centres between public entities may allow these entities to reap efficiency gains due to e.g. economies of scale. But they may nevertheless choose not to form a shared services centre, if the services of the shared centre are taxable. Examples of these mechanisms are given in Box 1.1.

Box 1.1: Case of less outsourcing due to tax exemption

In Germany, hospitals are tax-exempt, meaning that if a hospital takes part in the public funding system and, as a consequence, accepts to treat all patients which approach it, they will not have to pay VAT of 19 per cent, but cannot deduct input VAT either.

We have looked into a concrete case of a German non-profit hospital group with a church background. The group consists of several hospitals and several homes for the elderly. It has more than 4,000 employees and sales of more than EUR 250 million. The group is organised in a management holding company, several hospital-operating companies (running one hospital each) and several shared service centre companies with supportive functions like catering or central purchasing for the group.

VAT is influencing the hospital group on different levels. For example, VAT currently plays a major role for choosing the legal form of the group structure. For most of the supportive services rendered by the shared service centre companies (e.g. catering) as well as for the management service rendered by the management holding company (e.g. management of group, accounting, human resources) 19% VAT would become due as the VAT exemption in Art. 132(1)(b) of the VAT Directive is not applicable concerning the shared service companies. The hospital-operating companies would not be able to deduct input VAT insofar they are using the services rendered to them for tax-exempt hospital services. As a consequence it is – from an economic point of view – usually not possible to form shared service centres in a hospital group as a separate legal entity. Further it is not possible to divide a hospital group into different legal entities if supportive functions shall be concentrated in one company. Finally it is not possible to concentrate management activities in a separate holding company. In our case study the formation of a shared service company is only possible because of the German rule about tax grouping.

Once an outsourcing decision seems to be advantageous the costs have to be so low that the non-deductible VAT can be compensated, as a self-supply is not taxed with VAT, but the supply by a third party is taxed. This leads to the consequence that often there is only an outsourcing within the VAT group (shared service centres). The only chance for third party suppliers to have a competitive offer is to cut the personnel costs by paying lower wages or by saving material costs, e.g. through economies of scale.

VAT also has an influence on investment decisions, e.g. often goods are leased because the VAT (non-deductible input VAT) becomes due on a pro-rate basis and not at once in the beginning of the useful life of the good. Also the non-deductible input VAT has to be amortised. However, it was not considered that the VAT has a material effect for investments decisions.

Another case is that of one of the major Danish private hospitals with a turnover of more than Euro 15 million. In Denmark hospital services are tax-exempt (except for certain cosmetic procedures provided by private hospitals, which have been liable to VAT since 1 January 2011). A compensation scheme exists, which means that input VAT might be recovered. However, not for private hospitals. They cannot recover their input VAT. The hospital estimates that it has costs of input services such as cleaning services, call centres or catering services at around 5-8 per cent of its turnover. It produces by far the majority of these services in-house, as the VAT of 25 per cent most often exceeds the expected monetary gains from outsourcing. However, the hospital regularly makes business cases for outsourcing the input services. It reckons that it would outsource the majority of its input services if the input VAT was compensated for.

Source: KPMG for the Germany case. Copenhagen Economics for the Danish case.

It should be noted, that the currently existing Art. 132 (1) f of the VAT Directive offers a partial solution for the VAT induced disadvantages to outsourcing, since under certain conditions it allows an exempt supply of services within a so-called cost sharing group of persons, who are carry-

ing on exempt activities or are not regarded as taxable. However, Art. 132 (1) f of the VAT Directive is only applicable under specific circumstances; the basic problem remains where Art. 132 (1) f of the VAT Directive is not applicable. Furthermore, the initial costs incurred by the cost sharing group would nevertheless still include non-deductible VAT. Even if Art. 132 (1) f of the VAT Directive is applicable, a disadvantage for outsourcing of services would remain. As a consequence, Art. 132 (1) f of the VAT Directive cannot be regarded as a sufficient solution. A significant improvement of the VAT treatment of the public sector requires a reform of the VAT treatment of the public sector.

Studies indicate that in-house produced support services share of total public sector expenditure may be in the area of 8-20 per cent, cf. Table 1.1.

Table 1.1: Support services share of public sector expenditure

	UK	Denmark	France
Support services share (pct.)	8	20	19
Share definition	Pct. of total public sector running cost	Pct. of municipality running cost.	Pct. of total state running cost

Source: HM Treasury (2009), Statistics Denmark (2010), Direction du Budget (2010).

In our economic modelling that will be displayed later in the report, we apply an estimate of 10 per cent, cf. Table 1.2. Private business services' input to public production, which is the relevant substitute for most in-house produced support services, account for around 3 per cent.

Table 1.2: Public and private support services share of public production costs

	Share of public production costs
Public support services input to public production (own production)	10%
Private business services input to public production	3%
Total input of business services (own public + private) to public production	13%

Source: Copenhagen Economics

In our economic modelling, these 13 per cent support services are provided as input to the six modelled public core services and public administration, making up approximately 35 per cent of EU27 GDP, cf. Table 1.3.

Table 1.3: The public services and administration modelled for distortion on the input side

Sector	Share of EU27 GDP, per cent
Broadcasting, public and private	0.3
Education, public and private	3.6
Hospitals, public and private	2.7

Cultural services, public and private	6.0
Waste disposal, public and private	1.0
Postal services, public and private	0.6
Public administration, public	20.9
Rest of economy, private	65.5

Note: The sectorial shares of the economy do not exactly correspond to those one would obtain using data with a NACE classification (“Statistical Classification of Economic Activities in the European Community”) as this classification does not exactly correspond to the “Global Trade Analysis Project” (GTAP) classification.

Source: Copenhagen Economics, based on GTAP database.

1.5. OUTSOURCING CORE SERVICES

If one considers outsourcing actual public core services to the private sector, the potential gains could be even larger than looking only at outsourcing support services. By core services, we mean the entire public entity. For example, a municipality could choose to outsource its entire waste management responsibility to a private entity, instead of having the municipality owned waste management entity to perform the service.

Waste management, postal services and broadcasting services may be obvious candidates for eliminating any possible differential VAT treatment and allowing for competition, as differential VAT treatment occurs in many Member States. The reason is that these sectors, from a legal point of view, are characterised by differential VAT treatment. In the economic analysis we investigate the impact of differential VAT treatment for output in the 6 sectors in Table 1.4. Together they represent 14.2 per cent of the EU27 GDP.

Table 1.4: The six core services modelled for distortion on the output side

Services	Share of EU27 GDP, per cent
Broadcasting, public and private	0.3
Education, public and private	3.6
Hospitals, public and private	2.7
Cultural services, public and private	6.0
Waste disposal, public and private	1.0
Postal services, public and private	0.6
Total	14.2

Note: The sectorial shares of the economy do not exactly correspond to those one would obtain using data with a NACE classification as this classification does not exactly correspond to the GTAP classification.

Source: Copenhagen Economics, based on GTAP database.

There may also be gains from outsourcing more ‘advanced’ support services. The simpler support services such as cleaning services, IT-services and HR-management that we looked at in the previous subchapter, will often produce gains of a static nature: Since competitive private markets for e.g. cleaning services and IT-services already exist, more outsourcing from public entities are not likely to spur dynamic effects through increased competition and innovation within these

services. The gains emerge, as private producers are able to produce more efficiently than public producers.

Dynamic effects through new markets, business models and innovation could come from outsourcing more ‘advanced’ support services, closer to core functions. For instance, monitoring of patients in hospitals, which could take place from a distance, using communications technology, cf. Box 1.2.

Box 1.2: Outsourcing other support services

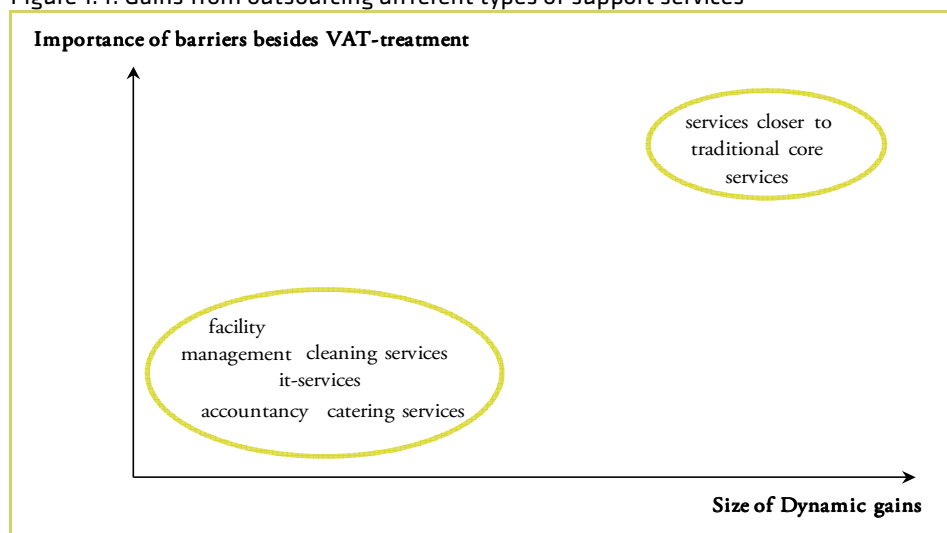
The hospital from Box 1.1 said that it believed that with input VAT compensated for, it would start to look into outsourcing or making investments in new technology not even considered today. For example, monitoring of patients and in general the types of services where trained nurses are not necessary.

Source: Copenhagen Economics.

The gains from outsourcing such other support services could therefore be even bigger than outsourcing the more traditional support services. However, outsourcing other services could also, to a larger extent, be hampered by barriers other than differential VAT treatment, for instance, immature technology or licensing requirements. Hence, these services may be currently less affected by lack of a level playing field with respect to VAT, and it may require a larger set of public reforms to reap them.

Figure 1.4 illustrates this idea that outsourcing other services may bring about more dynamic gains than outsourcing the more traditional support services, but that more barriers are likely to be present, as well.

Figure 1.4: Gains from outsourcing different types of support services



Source: Copenhagen Economics.

1.6. COMPLIANCE COST

We have now discussed some rough potential gains from eliminating the VAT bias between public and private providers of support services and core services. However, these gains depend very much on two factors:

- That differential VAT treatment is actually the decisive barrier
- That compliance costs from a system designed to eliminate the VAT bias does not erode the initial economic gains

First, that biased VAT treatment is actually the decisive barrier. If that is not the case, eliminating this bias alone is not going to have any major impact on public entity's outsourcing decisions.

On the one hand, we believe that there are costs to be saved from outsourcing a number of support services, such as cleaning services, catering services and IT-services, where few other legal and attitudinal barriers exist. We base this argument on the clear economic incentive for saving costs, as well as the literature and case studies we have collected.

On the other hand, a number of core services may be more difficult to outsource, due to quality and safety standards, regulatory barriers or attitudinal barriers. This is supported by a recent

Danish study, which finds that these concerns are important for a decision maker when deciding whether or not to outsource a public service, c.f. Table 1.5.¹¹

Table 1.5: Perceived barriers to outsourcing in Danish municipalities

Barrier	Assessment of the effect on outsourcing
Attitudinal	Significant
Economical	Significant
Regulatory	Medium
Organisational	Medium

Note: "Attitudinal" describes barriers, where the decision maker chooses not to outsource a service, as they have a negative attitude toward outsourcing that particular service. The analysis emphasise that this is in general more based on personal bad experiences than ideology.

Source: Udbudsrådet (2010a).

Second, that the compliance costs implied by a system designed to eliminate the VAT bias does not erode the initial economic gains.

On the one hand, we are not aware of the existence of studies aiming specifically at quantifying the compliance costs associated with having a refund system in place. But a recent OECD review on the size of public and private compliance costs associated with complying with the *general* VAT systems in Europe, reports losses in the area of 0.0-0.5 per cent of GDP, cf. Table 1.6.¹²

Table 1.6: Estimates of administrative costs from systems of consumption taxation

Country	Year	Per cent of GDP
Austria	2007	0.1
Denmark	2004	0.1
Germany	2007	0.5
Netherlands	2002	0.3
Norway	2007	0.0
UK	2007	0.1

Source: OECD (2008). Eurostat GDP figures have been used to convert OECD monetary estimates into comparable shares of GDP.

These are potentially large costs. But the numbers, of course, only relate to compliance with the *general*/VAT system, *not* a refund system. Our interviews with public authorities in the eight Member States that actually have refund systems in place seem to indicate that administra-

¹¹ Udbudsrådet (2010a).

¹² We are not aware of the existence of studies that have attempted to quantify the compliance costs associated with having a system in place designed to eliminate the VAT bias.

tive/compliance costs are small to medium cf. Table 1.7. So they do exist, but are probably not large.

Table 1.7: Size of administrative costs from refund systems in 8 EU Member States

Size of administrative costs	Number of EU Member States
High	0
Medium	2
Low	5
No answer	1

Source: Legal questionnaire, filled out by KPMG experts.

Based on these considerations, we conclude that barriers to outsourcing do exist in addition to differential VAT treatment. This reduces the immediate economic gains from eliminating the differential VAT treatment. Furthermore, we conclude that compliance costs from a refund system exist, but are not large. In the end, the size of compliance costs is also determined by the efficiency with which a future refund system is actually implemented. Hence, in practice they may differ across countries.

The conclusion that other barriers may exist and that the refund systems may imply some compliance costs fits well with the observation that only 8 out of 27 EU Member States currently have refund schemes in place, cf. Table 1.8. One could expect more Member States to have refund systems in place, if they perceived economic gains to far outweigh, for instance higher compliance costs.

Table 1.8: Countries with and without compensation mechanisms

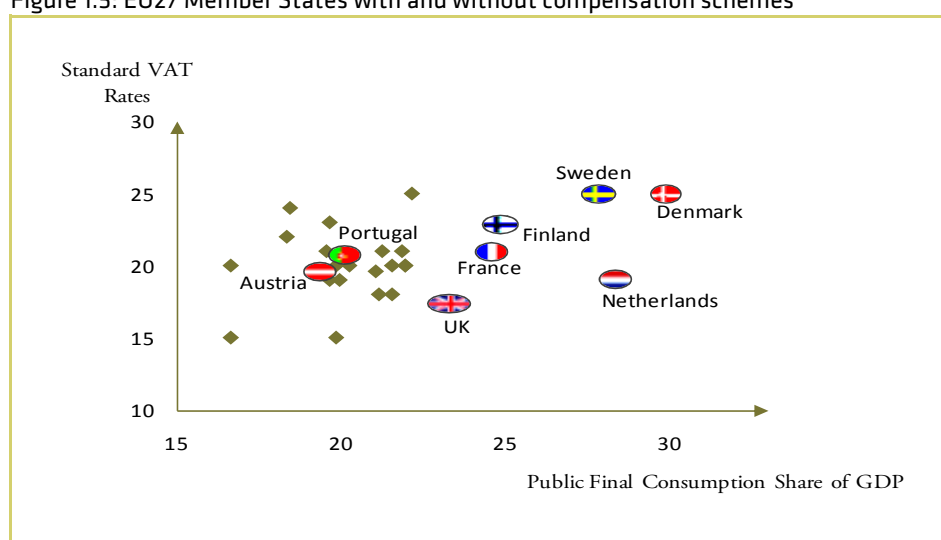
Countries with refund schemes	Countries without refund schemes		
Austria	Belgium	Greece	Malta
Denmark	Bulgaria	Hungary	Poland
Finland	Cyprus	Ireland	Romania
France	Czech Republic	Italy	Slovakia
Netherlands	Estonia	Latvia	Slovenia
Portugal	Lithuania	Spain	Germany
Sweden	Luxembourg		
United Kingdom			

Source: KPMG survey.

The Member States with schemes in place also tend to be the ones with relatively large public consumption shares (relative to GDP), cf. Figure 1.5. The flags in the figure represent the presence of a refund scheme in that particular Member State. The rationale for this is that the larger the public sector is, the larger will be the potential inefficiencies caused by differential VAT

treatment, simply because a larger part of the economy is potentially experiencing inefficiencies on this account. In contrast, it does not seem that Member States with a high standard VAT rate are more likely to have a refund scheme in place.

Figure 1.5: EU27 Member States with and without compensation schemes



Note: A flag indicates that the particular Member State has a compensation scheme in place.
Source: Eurostat.

1.7. SOLUTION MODELS FOR CREATING A LEVEL PLAYING FIELD

We present three solution models for reducing the distortions caused by the current differential treatment of VAT.

- Full taxation
 - Variant 1: All activities delivered against consideration and which qualify as economic are taxed at standard VAT rates
 - Variant 2: All economic activities are taxed at the lowest reduced rate of the respective Member State (must be at least 5 per cent) or 5 per cent respectively, if a Member State does not apply a reduced rate at all
- Refund system
 - Variant 1: Refund system encompasses all non-taxable/exempt activities in all modelled core sectors (waste and sewage disposal, broadcasting, postal services, education, cultural services, and health care) and public administration

- Variant 2: In the second variant, only public administration, education, cultural services and health care are encompassed by the refund system. In this second variant, a distinction is made between public providers, private profit-making providers and non-profit organizations; in other words, it has been examined what is the share of the kind of operator in the VAT refunded.
- Deletion of Article 13 of the VAT Directive while keeping tax exemptions in the public interest.
 - Variant 1: The previously out of scope activities become taxable at the standard VAT rate of the relevant Member States.
 - Variant 2: The activities become taxable at the lowest reduced VAT rate applicable in the respective Member State (must be at least 5 per cent) or 5 per cent respectively, if a Member State currently does not apply a reduced rate, such as Denmark.

The results are summarized in Table 1.9 and Table 1.10. A detailed description of the results are given in the text below and in chapter 5.

Table 1.9: Summary of qualitative model results, percentage change from baseline of differentiated VAT treatment of public and private sector

Category	Full taxation (see section 5.1 for more detail)	Refund system (see section 5.2 for more detail)	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest (see section 5.3 for more detail)
Distortion of competition	No distortion of competition	Distortions on output side	Distortions of competition both on input and output side
Barriers to market entry	No	Barriers to entry in supportive market (back office services) will be reduced	No
Level and structure of investment	Investment from public sector will be discouraged while private sector investment goes up	Investment and outsourcing are encouraged	Investment from private sector encouraged while public sector investment discouraged
Level and structure of employment	Shift from public sector to private sector	Shift from public sector to private sector	Shift from public sector to private sector
Efficiency in public service	More efficiency	More efficiency	More efficiency
Impact on tax revenues	Positive impact as taxes are levied on non-taxable /exempt public sector output	Loss. The loss is due to refunding input VAT to private and non-profit bodies.	Positive impact as taxes are levied on non-taxable /exempt public sector output

Category	Full taxation (see section 5.1 for more detail)	Refund system (see section 5.2 for more detail)	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest (see section 5.3 for more detail)
Welfare gains	Positive	Positive	Positive
Consumer prices	Go up as first round effect because taxes are added to public output	May go down as public production is carried out more efficiently and thereby cheaper	No to small increase in consumer price
Tax compliance cost	Low	Low (to medium)	Low
Impact on charities	Substantial increase in VAT paid by charities, if charities render their service against consideration	Positive as the VAT expenditure of charities will be eliminated	No impact
Risk of circumvention	Significant	No	Significant
Impact on SMEs	Positive as distortion of competition between public and private sector is removed	Positive as public sector's self-supply supportive activities will be reduced	Smaller positive impact as the supply bias of public sector will not be removed completely
Comparison with previous study results	Larger impact as full taxation of postal sector is included in this study	Larger impact as we cover more sectors and all exempt bodies whether public, private or charity.	Larger impact as full taxation of postal sector is included in this study

Source: Copenhagen Economics based on modelling result

Table 1.10: Summary of quantitative model results, percentage change from baseline of differentiated VAT treatment of public and private

Category	Full taxation		Refund system		Deletion of Article 13 CVSD while keeping exemptions in the public interest		Deletion of Article 13 CVSD while keeping exemptions in the public interest, variant 1			Deletion of Article 13 CVSD while keeping exemptions in the public interest, variant 2		
	Variant 1	Variant 2	Variant 1	Variant 2	Variant 1	Variant 2	Only broadcasting taxed	Only postal sector taxed	Only waste disposal taxed	Only broadcasting taxed	Only postal sector taxed	Only waste disposal taxed
Change in GDP pct. (billion Euro)	0.34 (37,77)	0.32 (35,35)	0.02 (2,04)	0.02 (1,98)	0.01 (1,29)	0.01 (0,81)	0.00 (0,29)	0.01 (0,89)	0.00 (0,09)	0.00 (0,08)	0.01 (0,67)	0.00 (0,05)
Change in public core services share of total output, pct.-points	-0.10	-0.07	0.00	0.00	-0.03	-0.03	-0.01	-0.02	0.00	-0.01	-0.02	0.00
Change in private core services share of total output, pct.-points	0.04	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.00	0.01	0.02	0.00
Change in private business services input share to pub. sec, pct.-pts.	2.56	2.54	3,68	3,63	0.07	0.05	0.00	0.06	0.01	0.00	0.05	0.01
Change in public busi-	-2.54	-2.51	-3,94	-3,87	-0.09	-0.07	-0.01	-0.07	-0.01	0.00	-0.06	-0.01

ness services input share to public sectors, pct.-points												
Change in public sector output, pct.	-0.68	-0.47	0.44	0.40	-0.25	-0.26	-0.06	-0.17	-0.02	-0.06	-0.19	-0.02
Change in public sector employment, pct. (Thousand persons)*	-1.14 (493.1)	-1.02 (422.2)	-0.58 (250.9)	-0.58 (249.8)	-0.17 (74.3)	-0.17 (74.9)	-0.03 (14.3)	-0.12 (53.4)	-0.02 (6.6)	-0.03 (11.6)	-0.13 (57.7)	-0.01 (5.8)
Change in wages pct.	0.25	0.25	0.24	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VAT rate calibration of revenue balance (billion Euro)	-10.44 (80.38)	-6.60 (50.82)	17.8 (-134)	17.4 (-132)	-0.49 (3.77)	0.04 (-0.31)	-0.11 (0.85)	-0.33 (2.54)	-0.05 (0.38)	0.06 (-0.46)	-0.02 (0.15)	0.00 (0.00)
VAT rate calibration of revenue balance considering only private bodies and charities (billion Euro)	-	-	4.1 (-35)	4.1 (-35)	-	-	-	-	-	-	-	-
Revenue costs split on public (pu), private (pr) and charities (ch), billion Euro	-	-	Pu: 99 Pr: 29 Ch: 6	Pu: 97 Pr: 29 Ch: 6	-	-	-	-	-	-	-	-

Note: CVSD is equivalent to VAT Directive.

**Total public sector employment is calculated for EU27 in 2010 except for 12 countries- Netherlands(2005), France(2006), Malta(2006), Sweden(2007), Czech Republic(2007), Portugal (2008), Romania(2008),Finland(2008), Greece(2008),Bulgaria (2009), Hungary (2009), Italy (2009). In the medium to long run, private sector employment will offset the drop in public sector employment.*

Public sector employment-consists of general government sector, which is the sum of three sectors (government units, social security funds and other non-profit institution) and publicly owned enterprises. Data for Austria, Belgium, Hungary, Portugal and Sweden refer only to general government sector public employment. For more see <http://laborsta.ilo.org/applv8/data/sectore.html>

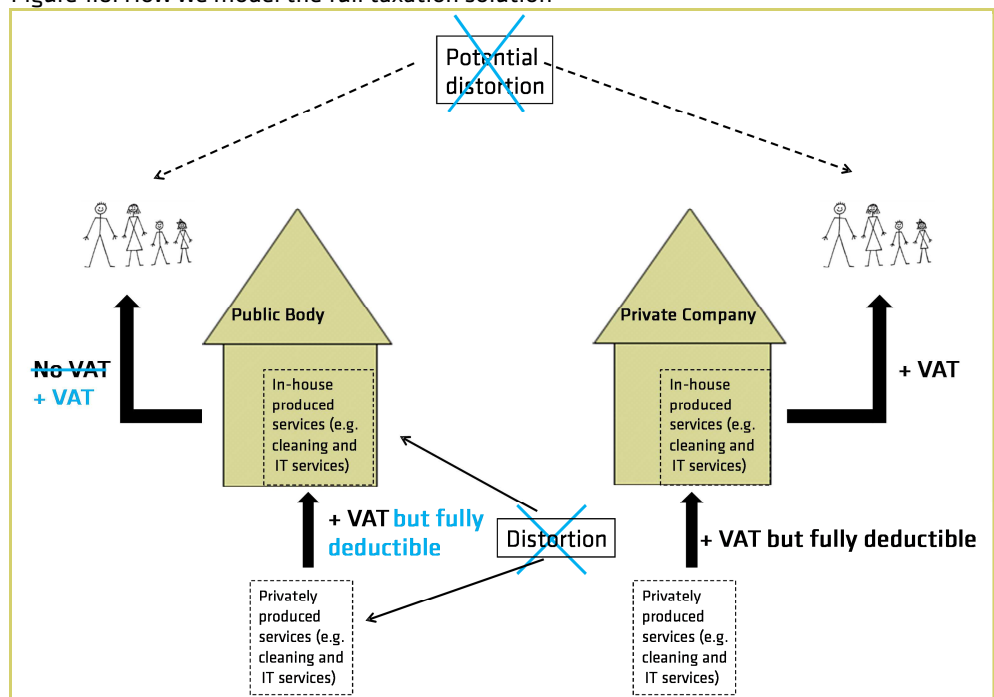
Full taxation scenarios are presented by assuming that effective competition between public bodies and private sector bodies exists. The size of compliance cost under refund system is assumed negligible in this calculation.

*Source: Copenhagen Economics based on modelling result. *Public sector employment for EU27 is taken from OECD based on ILO-Labour statistics database*

1.7.1 Full taxation

In the full taxation model, previously non-taxable or exempt activities become taxable. The full taxation model only affects services rendered against a consideration and services, which qualify as economic activity in the meaning of Article 9 of the VAT Directive. A service is delivered against a consideration, if there is a direct link between the service provided and the consideration received, which presupposes a legal relationship between the provider and the recipient, according to which there is a reciprocal performance. An example of a service delivered against a consideration is the delivery of cleaning services by a private firm to a consumer against a price paid by the consumer. Another example is the delivery of child care services delivered from a public sector nursery to a consumer against a fee paid by the consumer. A third example is surgery services delivered by a charity owned hospital to a consumer against a remuneration from the public health insurance. An example of a service not delivered against a consideration is primary schooling services, for which parents do not pay tuition, and where schools' budgets are set on the basis of their costs, i.e. through a general subsidy (which is not directly linked to a specific supply).

Figure 1.6: How we model the full taxation solution



Source: Copenhagen Economics.

Introducing a full taxation model will remove the economic distortions described earlier. The value for society of removing the output side distortions is that buyers choose the final services which are most valuable to them (without influence of the VAT issue). The value for society of removing the input side distortions is that the buyers choose subcontractors which are more productive than in-house production.

Based on our model simulations, we assess that introducing a full taxation model will increase EU27 GDP by up to 0.34 per cent in variant 1, corresponding to approximately € 37.8 billion per year. This effect is somewhat larger than what was estimated in the Copenhagen Economics and KPMG study (2011). The main reasons for the difference are that the postal sector is now included, and we take into account that refund systems currently only cover a limited set of services. This means that the benefits from a full taxation system become larger. The postal services sector alone comprises about a fifth of the postal and telecommunications sector, which makes up about 2 per cent of the EU27 economy. The full taxation model leads to a decline in the public sector's supply of broadcasting, cultural services, education, health care, postal services and waste disposal, by 0.1 per cent. Part of this decline is compensated for, by an increase in the private sector's supply of these services, which increases by 0.04 per cent. Furthermore, public sector self-supply decreases by 2.54 per cent, while private sector supplies of business services to the public sector increases by 2.56 per cent. The total public sector decreases by 0.68 per cent, and public sector employment decreases by 1.14 per cent corresponding to a job loss of approximately half a million jobs. This development reflects that reducing the incentives to self-supply shifts employment from the public to the private sector, and that reducing the distortions of competition on markets for final goods and services will benefit the private sector. The drop in public sector employment will still be compensated by a corresponding increase in private jobs in the longer run.

Perhaps most importantly, the full taxation option broadens the tax base, allowing for a significant general reduction in VAT rates. This reduces the economic distortions caused by VAT, thereby increasing GDP and consumer's welfare. The results are summarized in Table 1.11.

The table shows the estimated results of two variants of the full taxation model. In the first variant, previously exempt or non-taxable services become taxable at the standard rate, if they are rendered against consideration. In the second variant, they become taxable at the reduced rate. We distinguish between an estimation in which we assume that there is a high degree of competition between public and private service providers, and one in which there is no competition between them. The effects of the full taxation system are greater when we assume that there is competition, because in that case the VAT distortion affects final consumers' choice between public and private services. The GDP effect in the estimation where competition is assumed is twice as large as the GDP effect in the estimation where no competition is assumed.

We believe that the model with assumed competition is the most relevant one. In Copenhagen Economics and KPMG AG. (2011) we made an assessment of which public services could be subject to private supply, and health care, education, cultural services, waste disposal, broadcasting and postal services were believed to be potential for private supply.

Table 1.11: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Full taxation, competition between public and private providers		Full taxation, <u>no</u> competition between public and private providers	
	Variant 1	Variant 2	Variant 1	Variant 2
Change in GDP pct. (billion Euro)	0.34 (37,77)	0.32 (35,35)	0.09 (10,39)	0.07 (7,79)
Change in public core services share of total output, pct.-points	-0.10	-0.07	-0.07	-0.05
Change in private core services share of total output, pct.-points	0.04	0.07	-0.04	0.00
Change in private business services input share to pub. sec, pct.-pts.	2.56	2.54	2,70	2,67
Change in public business services input share to public sectors, pct.-points	-2.54	-2.51	-2,74	-2,72
Change in public sector output, pct. Points	-0.68	-0.47	-0.12	0.04
Change in public sector employment, pct. Points (thousand persons)*	-1.14 (493.1)	-1.02 (422.2)	-0.74 (319.3)	-0.65 (279.3)
Change in wages pct.	0.25	0.25	0.29	0.28
VAT rate calibration of revenue balance (billion Euro)	-10.44 (80.38)	-6.60 (50.82)	-6.75 (51.97)	-2.80 (21.65)

Source: Copenhagen Economics based on modelling results

The full taxation system can be expected to have a marked positive impact on European SMEs. Approximately 60 per cent of EU27 SMEs can be found in the business service sector, which is currently competing on uneven terms with public sector self-supply.

There are also potentially important positive effects which are not reflected in the results mentioned above. The VAT system becomes less complex, saving time and freeing up resources for more productive use than VAT optimization. Public services will become more exposed to competition, which may in the long run increase their productivity and level of innovation.

There are, however, also potentially important negative effects which are not reflected in the results mentioned above. For example, the introduction of a full taxation model will lead to a significant risk of VAT circumvention by re-designing budgeting and remuneration systems within the public sector or between the public sector and non-profit organizations. In principle it is possible for public bodies to avoid VAT even in the full taxation model we are considering, because they can switch from fee-for-service budgeting and remuneration systems towards general subsidies. This would cause the services to be delivered without consideration, and hence to be outside the scope of VAT. This is what we call risk of circumvention in public sector bodies.

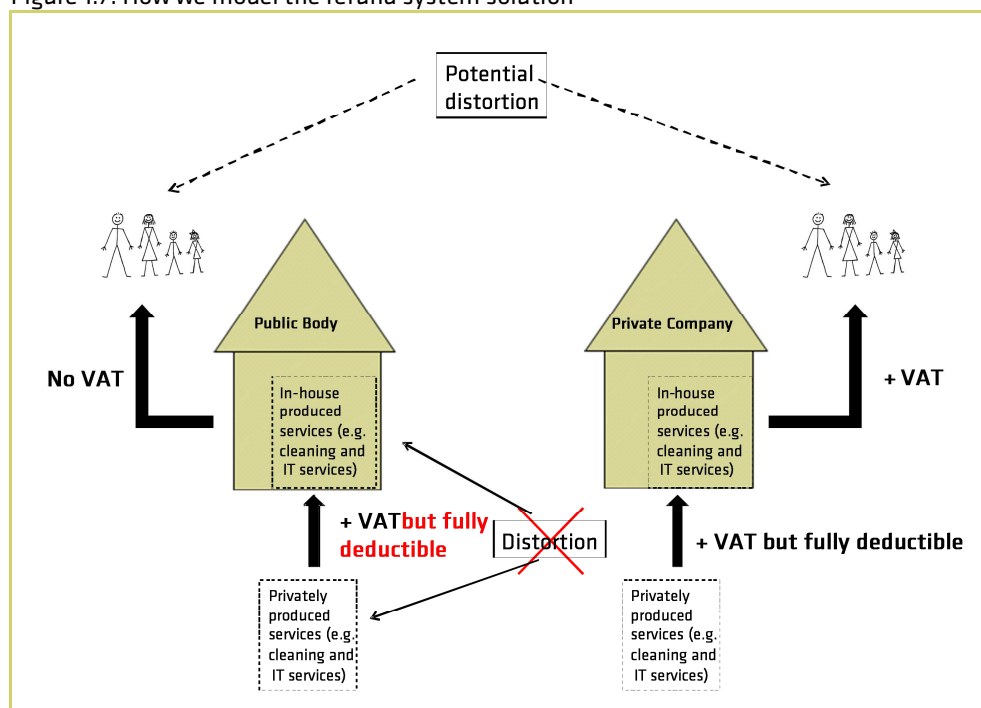
To deal with the risk of circumvention by public bodies in the EU, the scope of consideration would need to be revisited. Consideration for a supply can be defined very broadly to include even taxes which are directly linked to the supply. For example, Canada includes all amounts in the definition of consideration other than prescribed indirect taxes such as a retail sales tax, or the GST. New Zealand defines the taxes levied by local bodies as consideration for supplies made by them.

1.7.2 Refund system

This solution extends the type of refund systems currently in place in selected industries in eight Member States.¹³ This equalises VAT treatment between public and private sector on the input side but leaves behind the current potential distortion on the output side, cf. Figure 1.7.

¹³ Austria, Denmark, Finland, France, Netherlands, Portugal, Sweden and UK.

Figure 1.7: How we model the refund system solution



Source: Copenhagen Economics.

The impact of introducing a refund system which covers both public, non-profit and private bodies depends among other things on the administrative and compliance costs introduced by the scheme. If the scheme leads to an increase in such costs, it *may* offset the gains from the scheme. In Table 1.12 we summarize the results of estimating the impact of two variants of refund systems assuming no compliance costs and existence of compliance costs. For calculation purposes, we assume the latter to be 0.3 per cent of labour input. We do not know the true level of the compliance costs. We use this estimate in our model calculations to *demonstrate* the importance of implementing an efficient refund system to cater for low compliance costs.

Table 1.12: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Refund system, compliance costs assumed		Refund system, <u>no</u> compliance costs assumed	
	Variant 1	Variant 2	Variant 1	Variant 2
Change in GDP pct. (billion Euro)	-0.05 (-5,14)	-0.05 (-5,04)	0.02 (2.04)	0.02 (1,98)
Change in public core services share of total output, pct.-points	-0.01	-0.01	0.00	0.00
Change in private core services share of total output, pct.-points	-0.01	0.00	0.00	0.00
Change in private business services input share to pub. sec, pct.-pts.	3,68	3,63	3,68	3,63
Change in public business services input share to public sectors, pct.-points	-3,94	-3,87	-3,94	-3,87
Change in public sector output, pct.	0.30	0.26	0.44	0.40
Change in public sector employment, pct. (thousand persons)*	-0.37 (160.9)	-0.37 (161.4)	-0.58 (250.9)	-0.58 (249.8)
Change in wages pct.	0.26	0.26	0.24	0.23
VAT rate calibration of revenue balance (billion Euro)	17.8 (-134)	17.4 (-132)	17.8 (-134)	17.4 (-132)

Note: Compliance costs are set to 0.3 per cent of labour input.

Source: Copenhagen Economics based on modelling results

In the first variant, public administration and all modelled sectors (waste and sewage disposal, broadcasting, postal services, education, cultural services, and health care) are encompassed by the refund system. In the second variant, only public administration, the cultural sector, the education sector and the health care sector are covered.

If we assume a refund system could be created without compliance costs, this would increase EU27 GDP by 0.02 per cent. If we on the other hand do assume the existence of compliance costs reflecting 0.3 per cent of labour input, the GDP gain is offset; a reduction of -0.05 per cent. We stress that this estimate is not our best guess for the impacts of a refund scheme. The

result, however, does illustrate the importance of introducing an efficient refund implying low compliance cost, as the initial GDP gains are small, and therefore could be offset by compliance costs.

The refund system in variant 1 will imply a initial loss in revenue calculated to €134.4 billion¹⁴. Variant 2 (without the postal, waste and broadcasting sectors) implies a revenue loss of €131.8 billion, which is only €2.6 billion less than in variant 1. This corresponds to a reduction of 1.9 per cent. This is a bit less than one would expect given the fact that the share of postal services, waste disposal and broadcasting services out of all the seven exempt or non-taxable sectors' output account for 2.5 per cent.

However, the difference between 2.5 per cent and 1.9 per cent can be explained by the fact that postal, waste and broadcasting sectors are for a large part already taxable in many EU countries¹⁵ which means that these sectors are already liable to recover their input VAT. Moreover, in 8 Member States¹⁶ refund schemes are already in place partly covering these sectors. Hence, introducing an EU wide refund system will not lead to additional loss of revenue from these three sectors in those 8 Member States. Summing up, the € 2.6 billion difference between variant 1 and 2 can be explained by the fact that postal services, waste disposal and broadcasting services make up a small part of the economy, is for a large part already taxable and is, partly, already covered by current refund schemes in some Member States.

A refund system can be expected to benefit SMEs, because it produces a level playing field for the majority of European SMEs when they compete with public self-supply.

1.7.3. Deletion of Article 13 of the VAT directive, while keeping tax exemptions in the public interest

From an economic point of view, this solution affects the European economy in a way which is qualitatively similar to the full taxation model in many respects. The difference is that with the “deletion of article 13, while keeping tax exemptions in the public interest-option”, some economic activities do not entail VAT-liability even though they are delivered against a consideration. For purposes of estimating the impacts, using the economic model, we assumed that public administration, cultural services, education and health care remain non-taxable or exempt to the

¹⁴ Keep in mind that only input VAT recovered by private bodies and charities constitute actual losses for governments. For the private bodies now being able to recover input VAT, it is merely a distribution between government entities.

¹⁵ Public broadcasting is non-exempt in 7 EU countries (Belgium, Cyprus, Greece, Latvia, Luxembourg, Malta and Spain); Public postal service is non-exempt in 6 EU countries (Belgium, Cyprus, Greece, Luxembourg, Malta and Spain) and public waste sector is non-exempt in 10 EU countries (Belgium, Cyprus, Greece, Hungary, Ireland, Latvia, Luxembourg, Romania, Slovakia and Slovenia)

¹⁶ Refund scheme has already applied in 8 EU countries (Austria, Denmark, Finland, France, Netherland, Portugal, Sweden and United Kingdom)

extent they are non-taxed/tax exempt today. On the other hand we assume that broadcasting, postal services and waste disposal become fully taxable. In variant 1 of the estimations, we assume the services become taxable at the standard rate. In variant 2, we assume they become taxable at the reduced rate. We have also performed estimation of what would be the impact of making individual sectors taxable and non-exempt. All the results are shown in Table 1.13.

Table 1.13: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest		Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest, variant 1			Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest, variant 2		
	Variant 1	Variant 2	Only broadcasting taxed	Only postal services taxed	Only waste disposal taxed	Only broadcasting taxed	Only postal services taxed	Only waste disposal taxed
Change in GDP pct. (billion Euro)	0.01 (1,29)	0.01 (0,81)	0.00 (0,29)	0.01 (0,89)	0.00 (0,09)	0.00 (0,08)	0.01 (0,67)	0.00 (0,05)
Change in public core services share of total output, pct.-points	-0.03	-0.03	-0.01	-0.02	0.00	-0.01	-0.02	0.00
Change in private core services share of total output, pct.-points	0.02	0.02	0.00	0.01	0.00	0.01	0.02	0.00
Change in private business services input share to pub. sec. pct.-pts.	0.07	0.05	0.00	0.06	0.01	0.00	0.05	0.01
Change in public business services input share to public sectors, pct.-points	-0.09	-0.07	-0.01	-0.07	-0.01	0.00	-0.06	-0.01
Change in public sector output, pct. points	-0.25	-0.26	-0.06	-0.17	-0.02	-0.06	-0.19	-0.02
Change in public sector employment, pct. Points (thousand persons)*	-0.17 (74.3)	-0.17 (74.9)	-0.03 (14.3)	-0.12 (53.4)	-0.02 (6.6)	-0.03 (11.6)	-0.13 (57.7)	-0.01 (5.8)
Change in wages pct.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VAT rate calibration of revenue balance (billion Euro)	-0.49 (3.77)	0.04 (-0.31)	-0.11 (0.85)	-0.33 (2.54)	-0.05 (0.38)	0.06 (-0.46)	-0.02 (0.15)	0.00 (0.00)

Source: Copenhagen Economics based on modelling results

The impact of the deletion of article 13, while keeping certain exemptions in the public interest is not large compared to the effects of the other policy options analysed. The GDP-impact is at most 0.01 per cent, and is driven mainly by making postal services taxable and non-exempt. This model entails a risk of circumvention, as does the full taxation model. The large companies in the broadcasting and postal services sector have much to lose from becoming taxable, and they

can be expected to have an incentive to circumvent VAT by trying to reclassify services provided for a fee to services provided under a general subsidy. Furthermore, public administrations around Europe may also have an incentive to act in a similar way.

The positive SME impact in this option is much lower compared to the refund system and the full taxation system. Positive effects for SMEs can be expected in waste disposal where there are many SMEs. In postal services, introducing a level playing field can potentially benefit SMEs, but the question is whether the national incumbents are not so strong that the SME impact will be limited. In broadcasting, we expect that the advantages of scale are so substantial that there will be a limited impact on SMEs.

1.7.4. Comparison with results of the previous study

In the previous study, Copenhagen Economics and KPMG AG (2011) performed an analysis similar to the analysis of the full taxation model, variant 1. The findings in that study are qualitatively similar to the qualitative findings in this study, but the quantities are different, as shown in Table 1.14.

Table 1.14: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Previous results	Present results
Change in GDP pct. (billion Euro)	0,19% (€ 20,5 billion)	0.34 (37,77)
Change in public core services share of total output, pct.-points	-0.09	-0.10
Change in private core services share of total output, pct.-points	0.03	0.04
Change in private business services input share to pub. sec, pct.-pts.	1.42	2.56
Change in public business services input share to public sectors, pct.-points	-1.74	-2.54
Change in public sector output, pct. points	-0.90	-0.68
Change in public sector employment, pct. Points (thousand persons)	-0.06 (457.73)	-1.14 (493.1)
Change in wages pct.	0.01	0.25
VAT rate calibration of revenue balance (billion Euro)	-18 (.)	-10.44 (80.38)

Source: Copenhagen Economics based on modelling results

The differences arise because:

- We include changing VAT treatment of the postal sector in the analysis of this study. This was not done in the previous study.
- In this study we take into account that present refund systems do not cover all sectors. In the previous study we assumed that when a country has a refund scheme, it covers all the sectors we are modelling.

- In the modelling estimations, we take into account that not all services are rendered for consideration.

Including the postal sector and taking into account that the refund systems already in place do not cover all sectors, implies that the effects increase. The change in public sector input structure is twice as big in the present study as in the former study. This provides an important part of the explanation why the GDP-impact is almost twice as big in the present study as in the previous study. Taking into account that services not rendered for consideration will not be taxed reduces the impact on general VAT revenue, therefore, the VAT rate decrease obtainable with full taxation is smaller in the present study than in the previous one, but does not affect the full taxation model's ability to remove the output side and input side distortions.

1.8. RECOMMENDATIONS

Based on the above results, we believe that the most attractive solution to eliminating the distortions caused by differential VAT treatment of public and private entities is a full taxation model. It promises greater potential economic gain as the kind of refund systems currently in place around the EU. Furthermore, it is likely to reduce compliance costs compared to the current situation, where a refund system may add compliance costs. Finally, a full taxation solution is 'future proof', in the sense that whatever developments may occur in how public and private entities compete, the full taxation model automatically ensures a level playing field.

However, taxing only the consideration part of public output may provide incentive to finance public entities through, for instance global subsidies in order to escape VAT. This behaviour could reduce the positive economic impact of the full taxation solution. Hence, one could consider a full taxation solution which taxes the entire value of the public produced services regardless of how they are financed. Thereby, global subsidies would be taxed, as well.

Chapter 2 CURRENT VAT TREATMENT OF PUBLIC SECTOR ACTIVITIES¹⁷

The VAT treatment of public sector activities in the EU has been discussed for several years. The main problems so far identified by the Commission and literature are as follows:

- Lack of neutrality (particularly: unfair competition, self-supply bias, disincentive to investment, cascade effects)
- Lack of harmonisation
- Complexity

The aim of this chapter is to analyse the current VAT treatment of the public sector activities from a primarily legal point of view. First it will be examined how the provisions of the EU VAT law for public sector activities work (2.1). Afterwards it will be analysed how the EU VAT law is adopted in the Member States (2.2 for all public core sectors except postal services and 2.3 for postal services). The subchapter 2.2 also describes the refund and compensation mechanisms already in place in some Member States. Finally, the situation within the EU will be compared to the current situation in several OECD countries with a VAT/GST system (2.4).¹⁸

However, it should be noted that – for assessing the economic effects of the VAT rules regarding the public sector – it is also necessary to take into account factors outside the VAT law:

- Of considerable importance is the distinction between public and private activities in regards to regulatory issues. In some sectors private competition with public activities is legally forbidden though theoretically possible, due to regulatory national Member State legislation. A different understanding of public tasks within the Member States leads to a variety of sectors where private competition is allowed in one Member State and forbidden in another. However, most Member States have a tendency to liberalise former exclusively public sectors, allowing for more private competition. It should also be noted that the Member State regulations have to comply with the Market Freedoms laid down in Articles 45 to 66 of the Treaty on the Functioning of the European Union.
- Public bodies are in general welfare-orientated opposed to profit-orientated private companies. As a consequence, certain sectors are considered better to be reserved for public bodies and non-profit organisations, because the exposure to a free market seems inappropriate. In the case of merit goods, such as basic health care for example, it is deemed socially desirable not to charge a price that reflects the full value of the supply. Low income members of the society should not be unfairly deprived of merit goods.¹⁹ Regarding this, the absence of a competitive free market for certain goods also serves

¹⁷ This chapter is to a large extent a reproduction of Copenhagen Economics and KPMG AG (2011). The subsection on the treatment of the postal service is new.

¹⁸ GST stands for “Goods and Services Tax”

¹⁹ P. Gendron (2005) ‘Value-Added Tax Treatment of Public Sector Bodies and Non-Profit Organisations: A Developing Country Perspective’, ITP Paper 0514, URL:<http://www.rotman.utoronto.ca/riib/> (last checked: 11 January 2011).

distributional purposes. In order to cover the difference between market value and user contribution the state or grant subsidies step in.

- Activities in the public interest – or merit goods – are not only done by public bodies, but also by the third sector (charity organisations). Very often public bodies and the third sector are cooperating, but from time to time they are also competing on the social market.
- It is important to note that in many Member States the public sector is still subject to accounting standards or methods different from those applying to the private sector. This makes it more complicated to keep records for VAT purposes.

2.1. PROVISIONS OF THE COMMON VAT SYSTEM DIRECTIVE

2.1.1 Basic provisions

In order to ensure the establishment and the functioning of the internal European market, Article 113 Treaty on the Functioning of the European Union allows the harmonisation of VAT Law. The essential piece of European legislation establishing the common system of VAT is the Common VAT System Directive (VAT Directive).²⁰ Designed as a general tax on consumption, exactly proportional to the price of goods and services, the European VAT System allows the deduction of the amount of VAT directly borne out of the various cost components of the production and distribution process before final consumption (deduction of input VAT). This mechanism exists in order to ensure the fiscal neutrality of the VAT system, despite the length of the production chain. In other words, VAT should only be a burden on final consumption. When incurred during the process of production and distribution of goods and services, VAT should be deducted.

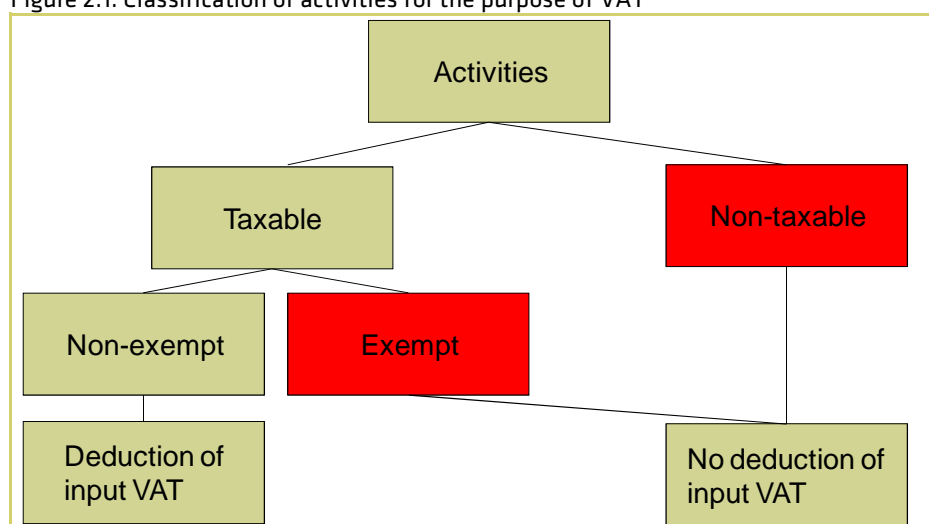
In its Article 2 the VAT Directive defines as subject to VAT the supply of goods and services for consideration by a taxable person within the territory of a Member State. These transactions generally fall within the scope of VAT and are called 'taxable' (or 'within the scope of VAT'). However, being taxable, a transaction may still fall within the scope of an exemption, freeing the taxable person from the VAT payment. Consequently, the VAT treatment of any transaction is dependent on two fundamental questions: Is the transaction 'taxable' or 'non-taxable', and, if it is taxable, is it 'tax-exempt' or 'non-exempt'?²¹ This classification is visualized in Figure 2.1.

²⁰ Council Directive 2006/112/EC of 28 Nov. 2006 on the common system of VAT, (2006) OJ L347/1 recasting Sixth Council Directive 77/388/EEC of 12 May 1977 on the harmonisation of the laws of the Member States relating to turnover taxes – Common system of VAT: uniform basis of assessment, (1977) OJ L145/01.

²¹ See R. De la Feria (2009) 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37, on page 149.

The deduction of input VAT is not possible in regards to costs incurred by a non-taxable activity. In addition, for certain kinds of tax-exempt activities (e.g. public sector activities like health care, education) it is not possible to deduct input VAT, whereas for other tax-exempt activities (e.g. intra-community and export supplies) the deduction of input VAT is possible. Article 9 defines a taxable person as any person who, independently, carries out any economic activity in any place, whatever the purpose or results of that activity. These provisions appear to be easily applied to public bodies, as they may also engage in economic activities. However, like most VAT Systems in the world, the VAT Directive has special additional rules where activities of the public sector and activities in the public interest are involved.

Figure 2.1: Classification of activities for the purpose of VAT



Source: KPMG AG

The VAT Directive is not directly applicable in the Member States. It needs to be adopted by the national legislation of the Member States, which are the addressees of the VAT Directive (Article 288 third paragraph Treaty on the Functioning of the European Union).²²

2.1.2 The VAT treatment of the public sector

The VAT Directive contains several stipulations especially designed for the public sector. According to Article 13, public bodies are not treated as taxable persons in regards to certain activities. There are no special provisions for the third sector. Charity organisations might not qualify

²² Although the VAT Directive might be directly applicable in cases where a Member States fails to adopt the VAT Directive timely or properly.

as taxable persons, pursuant to the general rule laid down in Article 9 VAT Directive, if they do not receive remuneration for their activities.

Insofar as public bodies and charity organisations are acting as taxable persons, their activities might be tax-exempt according to Article 132 or one of the so-called stand still clauses in the 13th Title of the VAT Directive.²³ Furthermore, taxable and non-exempt activities might be subject to reduced VAT rates (Articles 98 ff.) if a Member State elects to apply reduced VAT rates.

2.1.3 Treatment of public bodies as taxable persons (Article 13)

Article 13(1) first paragraph states that states, regional and local government authorities and other bodies governed by public law shall not be regarded as taxable persons in respect of the activities or transactions in which they engage as public authorities. In other words, their activities are non-taxable, thus outside the scope of VAT.

However, Article 13(1) second paragraph states two exceptions from this basic rule.

- First, bodies governed by public law shall nevertheless be regarded as taxable persons in respect to those activities or transactions where their treatment as non-taxable persons would lead to significant distortions of competition (distortion clause).
- Second, they shall in any event be regarded as taxable persons in respect to the activities listed in Annex I, provided that those activities are not carried out on such a small scale as to be negligible (non-negligible clause).²⁴

Furthermore, according to Article 13(2) Member States may choose to treat certain tax-exempt activities engaged in by bodies governed by public law as activities in which those bodies engage as public authorities (exempt activities clause). As a consequence, the VAT status of the particular activity within its scope may change from 'taxable but tax-exempt' to 'non-taxable'.

As a result of these provisions an economic activity will be non-taxable if the following criteria are met:

- Activity of a body governed by public law
- Public body, presenting a public authority is engaged in
- The distortion clause does not apply (i.e. treatment as non-taxable would not lead to significant distortions of competition)

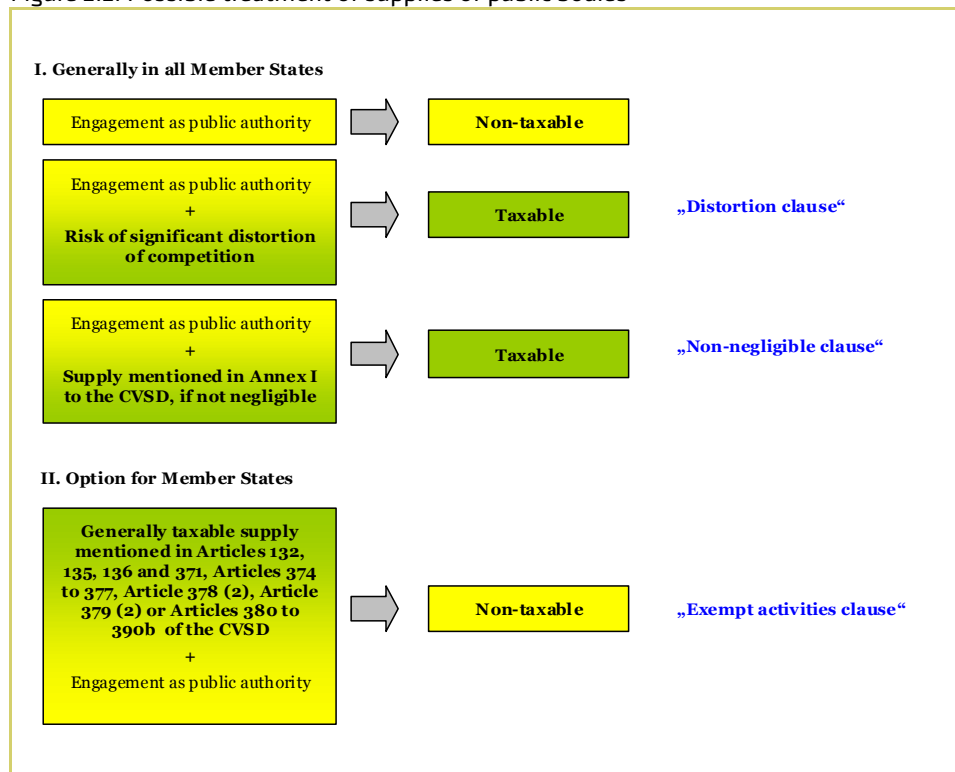
²³ The VAT Directive provides more than these tax-exemptions, e.g. Article 135 of the VAT Directive. As these tax-exemption are not specially related to the public sector they are not discussed in detail.

²⁴ In Annex I activities listed are telecommunications services; supply of water, gas, electricity and thermal energy; transport of goods; port and airport services; passenger transport; supply of new goods manufactured for sale; transaction in respect of agricultural goods; organisation of trade fairs and exhibitions; warehousing; activities of commercial publicity bodies; activities of travel agents; running of staff shops, cooperatives and industrial canteens and similar institutions; activities carried out by radio and television bodies insofar as these are not exempt pursuant to Art. 132(1)(q).

- The non-negligible clause does not apply (i.e. either no activity listed in Annex I or only on a negligible scale)

Only if the treatment as non-taxable does not apply to the exempt activity clause (Article 13 (2) of the VAT Directive), it may become relevant changing the VAT status from exempt to non-taxable. Figure 2.2 visualises these differences in tax treatment of services depending on the situation.

Figure 2.2: Possible treatment of supplies of public bodies



Source: KPMG AG

The following paragraphs will discuss the provisions of the VAT Directive, concerning the taxability of public bodies in more detail in order to provide a better understanding of the system.

2.1.4 Economic Activity

Economic activities, as defined in Article 9, are comprising all activities of producers, traders and persons supplying services.

An analysis of those definitions, according to the , the European Court of Justice (ECJ), shows that the scope of the term 'economic activities' is very wide, and that the term is objective in character, in the sense that the activity is considered per se and without regard to its purpose or results.²⁵ However, receipt of payment for an activity alone is not sufficient to qualify an activity as economic in nature.²⁶ A supply of services for consideration presupposes a direct link between the service provided and the consideration received²⁷ without which the activity at hand is not considered an economic one. Recently, the ECJ, in regards to public legal advice services, has clarified that the link must be primarily focused on the value of the services. If a consideration depends only in part on the actual value of the service provided and for the most part, for example on the income situation of the recipient, it is not an economic activity.²⁸

2.1.5. Bodies Governed by Public Law

It is not defined in the VAT Directive who, besides States, regional and local government authorities, shall be considered as bodies governed by public law. However, according to the ECJ, a body governed by public law must be itself part of the public administration.²⁹ Therefore, a private person, even if exercising the powers of a public authority, can never be a body governed by public law.³⁰ Furthermore, a private company does never fall within the scope of Article 13(1), even if its shares are being held to 100 per cent by a body governed by public law. It follows that the main purpose is to exclude all private law entities from the scope of Article 13.

The definition of the public administration is more or less left to the discretion of national legislation. This causes a different VAT treatment in Member States where ,to a large extend, public tasks are assigned to private entities and Member States where this is not the case.

2.1.6 Acting under Public Authority

In *Carpareto Piacentino and Rivergaro*³¹ the ECJ ruled that acting under public authority requires the public body to act under the special legal regime applicable to it, whereas acting under the same legal conditions as those that apply to private traders excludes the public body from the scope of Article 13.³² The court has consistently reiterated that the main criterion for 'acting as a public authority' is the legal regime applicable to a public body under national law, leaving it to the national court's discretion to determine the nature of the legal regime applicable to the activi-

²⁵ Case C-235/85, *Commission v. Netherlands*, (1987) ECR, 1471, at paragraph 8.

²⁶ Cases C-408/06, *Götz*, (2007) ECR I-11295, at paragraph 21; C-284/04, *T-Mobile and Others*, (2007) ECR I-5189, at paragraph 45.

²⁷ Case 102/86 *Apple and Pear* (1988) ECR 1443, paragraphs 11 and 12.

²⁸ Case C-246/08 *Commission v. Finland*, (2009), Official Journal C 312 , 19/12/2009 Page 7, at paragraph 51.

²⁹ Case C-260/98 *Commission v. Greece*, (2000) ECR, I-6537, at paragraph 40.

³⁰ Case 235/85 *Commission v. Netherlands*, (1987) ECR, 1471, at paragraph 8.

³¹ Joint cases 231/87 and 129/88, *Carpareto Piacentino and Rivergaro*, (1989) ECR 3233, at paragraph 16.

³² As far as we use the term 'public body' it refers to a body governed by public law.

ty at issue.³³ Based on the traditional distinction between private and public law this criterion is particularly difficult to handle in common law Member States, where a clear distinction between private and public law does not, at least with the same emphasis, exist.³⁴

2.1.7. No Significant Distortion of Competition

The distortion clause is designed to avoid VAT induced unfair competition between public and private entities. Although acting under the special legal regime applicable, bodies governed by public law may, under national law, engage in activities of an essentially economic nature that can also be carried on in parallel by private operators. As a consequence, competition between public bodies and private operators is possible. Given a competition with private operators, the rule of Article 13(1) first paragraph may lead to a distortion of this competition by treating the public bodies' services as non-taxable, whereas the private competitor would be obliged to charge VAT for his services. The distortion clause seeks to avoid this effect by treating both competitors in the same way for VAT purposes, if otherwise significant distortions of competition are to be suspected. As the ECJ pointed out, the aim of the distortion clause is to ensure fiscal neutrality.³⁵

However, the provisions of Article 13(1) second paragraph are particularly unclear, thereby leaving room for interpretation. The VAT Directive does not mention under which exact circumstances a competition between private and public entities is considered to exist and when a distortion is considered to be significant. Furthermore, it is up for interpretation whether a competition has to be actually already in existence or if the possibility for future competition does suffice. The ECJ essentially clarified the scope of the distortion clause in its judgement *Isle of Wight and others*.³⁶ The court held that the distortion of competition has to be evaluated by reference to the activity in question as such, without such evaluation relating to any local market in particular.³⁷ The scope of the distortion clause includes not only actual competition, but also potential competition, provided that the possibility of a private operator entering the relevant market is real, and not purely hypothetical.³⁸ The ECJ sees Article 13(1) first paragraph as an exemption to the basic rule of Article 9, concluding that Article 13(1) has to be interpreted narrowly. According to the ECJ, it follows that the distortion clause, restoring the general rule that any activity of an economic nature be subject to VAT, must not be interpreted narrowly. Therefore, a distortion of competition is considered to be significant if it is more than negligible.³⁹

³³ See for example: Case C-4/89, *Commune di Carpaneto Piacentino and Others*, (1990) ECR I-1869, at paragraph 8; Case C-202/90, *Ayuntamiento de Sevilla*, (1991) ECR I-4247, at paragraph 18.

³⁴ R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37 No 3, on page 149.

³⁵ Case C-430/04, *Halle*, (2006) ECR I-4999, at paragraph 24.

³⁶ Case C-288/07, *Isle of Wight and Others*, (2008) ECR I-7203.

³⁷ Case C-288/07, *Isle of Wight and Others*, (2008) ECR I-7203, at paragraph 53.

³⁸ Case C-288/07, *Isle of Wight and Others*, (2008) ECR I-7203, at paragraph 65.

³⁹ Case C-288/07, *Isle of Wight and Others*, (2008) ECR I-7203, at paragraph 79.

2.1.8. No Annex I Activity unless carried out on negligible scale

The non-negligible clause in Article 13(1) paragraph 3 pursues the same objective as the distortion clause. However, it uses a different approach consisting of two elements. First, the activity at hand must be listed in Annex I. Furthermore, it must not be carried out on such a small scale as to be negligible. The idea behind it is that the listed activities (which were traditionally carried out by public bodies in many Member States in the 1970's, when the VAT law was harmonised) are presumed to lead to distortions of competition. If carried out on a negligible scale only, it can be assumed that the distortion of competition would also only be negligible.⁴⁰ Transposition of this second non-negligible-scale element is however optional.⁴¹ Thus, Member States are free to treat bodies governed by public law, acting under the special legal regime applicable to them, as a taxable person in respect of the activities listed in Annex I, even if they are carried out only on a negligible scale. Unfortunately, the ECJ never ruled on the meaning of 'such a small scale as to be negligible' causing the criterion to be particularly difficult to handle. However, the ECJ used the term to construe the distortion clause in the *Isle of Wight* case.

2.1.9. Exempt Activities Clause

As highlighted above, under Article 13(1) a public body must engage in the activity as public authority, that is, under the certain legal regime applicable to it. Otherwise, it does not fall within the scope of Article 13(1), resulting in taxable transactions. However, Article 13(2) allows Member States to still regard a public body as falling within the scope of Article 13(1) provided that the activity at issue is covered by one of the listed exemptions. Thus, Article 13(2) broadens the scope of Article 13(1) first paragraph, offering the possibility to change the VAT status of a transaction from taxable but tax-exempt to non-taxable. The ECJ ruled that the application of the exempt clause generally requires the Member State to make an express legal provision to that effect, rather than applying a mere administrative practice.⁴²

In practice, the qualification of an activity as non-taxable or taxable but tax-exempt may be important for a supplier's right to opt for tax enabling him to deduct input VAT himself. In the case of *Salix*, for instance, a private company engaged in letting immovable property to a public body. Generally, the letting of immovable property shall be tax-exempt according to Article 135(1)(l). Member States are allowed to grant taxable persons a right of option for taxation as stated by Article 137(1)(d).

⁴⁰ Case C-288/07, *Isle of Wight and Others*, (2008) ECR I-7203, at paragraph 75.

⁴¹ Joint cases 231/87 and 129/88, *Carpareto Piacentino and Rivergaro*, (1989) ECR 3233, at paragraph 27; Case C-4/89, *Commune di Carpaneto Piacentino and Others*, at paragraph 14.

⁴² Case C-102/08, *Salix*, (2009) ECR I 4629, at paragraph 58.

A further relevance of the distinction between non-taxable and taxable but tax-exempt supplies concerns the obligation to be registered for VAT purposes and to file VAT returns, which generally only applies to taxable persons.⁴³

2.1.10. Examples

Example 1:

A municipality is rendering waste disposal services to citizens. The legal relations are subject to public law. The citizens are bound to use this public offering. Private entities are not allowed to offer waste disposal services to citizens.

The activities of the municipality are non-taxable. The municipality is a public body which is acting as such. A distortion of competition is not possible, as a private service offering is not allowed. Finally, waste disposal is not listed in Annex I.

Example 2:

A municipality is rendering public off-street parking. A private service offering would be legally possible but actually there is no private competitor in the local market. The activities of the municipality are taxable as there is a potential competition at hand.

Example 3:

A municipality with more than 1,000,000 inhabitants supplies gas to all citizens and companies within its area. A private competition is not allowed in the area of the municipality (state monopoly). The legal relations are subject to public law.

The activities of the municipality are taxable. The municipality is a public body acting as such and there is no distortion of competition at hand. However, the supply of gas is listed in Annex I and cannot be seen as non-negligible, because of the size of the municipality.

Example 4:

A public body is letting immovable property to a taxable person, based on a civil law agreement. The Member State in question has elected to treat taxable but tax-exempt activities as non-taxable in its national VAT Act.

The activities of the public body are non-taxable. The conditions of Article 13 are not met because the public body is acting on a civil law basis. A distortion of competition may arise, as other persons might as well offer immovable property to let. However, the letting of immova-

⁴³ However, public bodies might be obliged to file VAT returns as regards intra-community acquisitions and reverse-charge services.

ble property is subject to a tax-exemption (Article 135(1)(l) of the VAT Directive). Thus, it can be treated as non-taxable, pursuant to Article 13(2) of the VAT Directive.

2.1.11. Effects

Where Article 13 leads to non-taxability, the public body will not be entitled to deduct the input VAT according to Article 168. In other words the public body is, in regards to the VAT system, de facto treated as a final consumer, who has to bear the VAT burden on his inputs.

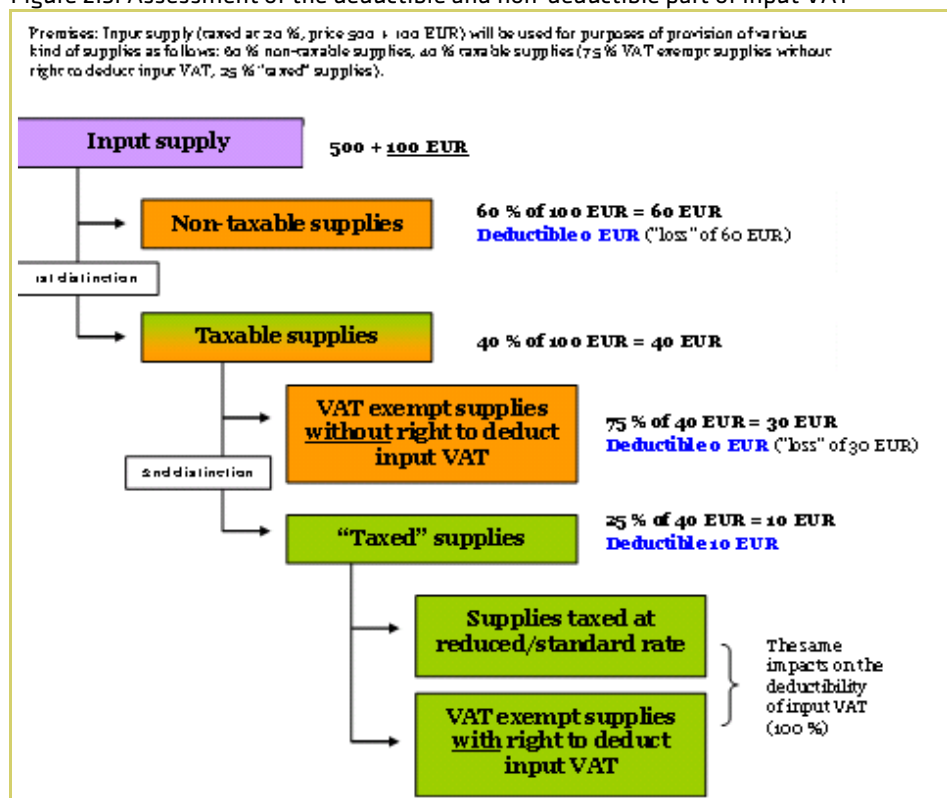
It is obvious that Article 13 is a very complex provision, which leaves room for interpretations concerning the question whether a distortion is 'significant' or an Annex I activity is 'non-negligible'. Another complexity arises from the fact that Article 13 highly depends on specific national law even though the ECJ tries to avoid this by a formal interpretation of 'public body' and 'acting under public authority'. Furthermore, the combination of the distortion clause and the non-negligible clause does not lead to consistent results. Besides, the possibility to treat taxable but tax-exempt supplies as non-taxable is not consistent. Finally, it is worth pointing out that the complexity leads to compliance costs for public bodies. On the contrary, private competitors are highly dependent on clear and consistent provisions to check whether they can claim an equal taxation of competing public bodies (i.e. like in the Halle case).

It is noteworthy that public bodies will often engage in taxable activities, as well as in non-taxable activities. In practice, public bodies being completely outside the scope of VAT are actually uncommon. Consequently, they will only be able to deduct a part of their input VAT. The calculation of the deductible VAT is often problematic and has been subject of considerable case law.⁴⁴

Figure 2.3 illustrates how the amount of deductible input VAT may be calculated. Additionally, it may be very complicated for public bodies to calculate the partial input VAT, if they are subject to simplified accounting standards or methods which are not comparable with the EU Accounting Directives or the International Financial Reporting Standards (IFRS).

⁴⁴ See for example cases C 98/98, *Midland Bank*, (2000) ECR I-4177; C-515/07, *VNLTO* (2009); C-437/06 *Securita* (2008) ECR I-1597.

Figure 2.3: Assessment of the deductible and non-deductible part of input VAT



Source: KPMG AG

The mechanism of Article 13(1) paragraph 2 and 3 is – theoretically – capable to avoid unfair competition caused by treating public transactions in the same way as those of private competitors, as long as otherwise a distortion of competition is to be feared. However, the success of this approach highly depends on the proper transposition and application by the Member States.

It is interesting to note that, although the distortion clause, at first glance, appears to be foremost concerned with the protection of the private sector, the ECJ has recently ruled in *Salix* that a dis-

distortion not to a private person's detriment, but to a public body's detriment, may as well fall within the scope of the open clause.⁴⁵

A weakness of the distortion clause becomes evident by reference to national market regulations. Since Member States may pass national market regulations stating that certain transactions may exclusively be provided by public bodies, this broadens the scope of the distortion clause: Where legally forbidden, there is no potential private competition. According to Article 13, a side effect is that Member States may influence VAT treatment of their public bodies through adjustments of their national market regulations. As a result, the same transaction by a public body in one Member State might be taxable because of the distortion clause, yet at the same time in another Member State non-taxable, because private competition is legally impossible. National market regulations, however, have to comply with the market freedoms laid down in Articles 45 to 66 of the Treaty on the Functioning of the European Union. It has to be noted that this effect is only possible if – at the same time – a Member State stipulates that only a public service offering is allowed and the citizens are forced to use this public service offering (full state monopoly).⁴⁶ In cases where there is only a public service offering allowed, but the citizens can also use service offerings from other Member States, a competition situation may arise.

Furthermore, it must be pointed out that Article 13(1) paragraph 2 and paragraph 3 are primarily focused on possible distortions of competition caused by the VAT treatment of the output of a public body. As a consequence, they do not have any effect on the problems related to the VAT treatment of a public body's *input*. This concerns the inability of a public body to deduct VAT on its input, as long as its output is considered to be non-taxable. The main input related distortions identified by the Commission and literature are:

- Self-supply bias and disincentive to investment
- Cascade effect

2.1.12. Self-supply bias and disincentive to investment

The inability to deduct input VAT causes extra costs when a non-taxable public body considers investments or a contracting out of services to the private sector. However, they avoid this extra cost by choosing to self-supply. It follows that the current VAT situation encourages self-supplies, even if alternatives, such as contracting out or public private partnerships, would be more efficient; the higher the Member State's VAT rate, the stronger the effect.⁴⁷ This is illustrated below, cf. Figure 2.4.

⁴⁵ Case C-102/08, *Salix*, (2009) ECR I 4629.


⁴⁶ Case C-408/06, *Götz*, (2007) ECR I-11295, at paragraph 21.

⁴⁷ See Dijkgraaf & R.H.J.M. Gradus (2003), 'Cost Savings of Contracting Out Refuse Collection', *Empirica*: 149-161; K. Mause (2009), 'Contracting Out the State in the OECD World: What Do We (Not) Know?', Paper prepared for FoJuS-Panel, DVPW-Kongress 2009 Kiel, URL:

Figure 2.4: Choice between outsourcing and self-supply

Premises: VAT rate applicable – 20%

	Net price	VAT	Input costs
Outsourcing	100 EUR	20 EUR	120 EUR
Self-supply	110 EUR	0 EUR	110 EUR

 Preference of public body

Public body prefers less efficient alternative because of lower total input costs.
The self-supply will always be preferred over outsourcing until the increased costs due to inefficiency of self-supply exceed the total price of outsourced supply (i.e. 120 EUR)

Source: KPMG AG

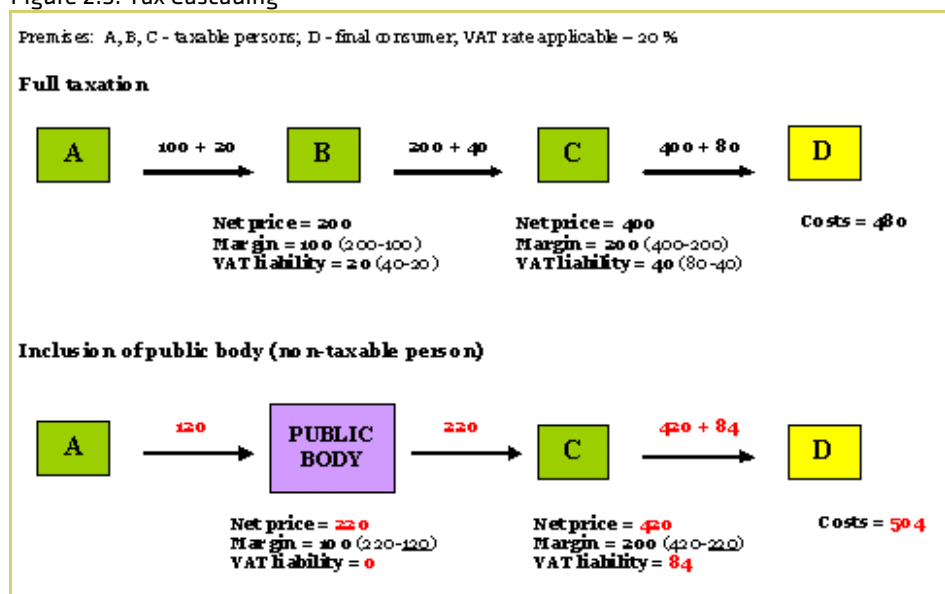
2.1.13. Cascade effect

This effect describes the situation that the service of a non-taxable public body is an intermediate step in the production. The public body may pass on the extra cost of non-deductible input VAT to a private operator who, because of the hidden character of the forwarded VAT, will also be unable to deduct and pass on his extra costs to his customer himself. It is important to note that these effects are not specifically related to the treatment of public bodies as non-taxable (Article 13), but apply equally in relation to public and private bodies benefiting from tax-exemptions such as Article 132 and Article 135.⁴⁸ This is illustrated in the Figure 2.5.

<https://www.dvpw.de/fileadmin/docs/Kongress2009/Paperroom/2009Fojus-pMause.pdf> (last checked: 11 January 2011) at chapter 4.2, who points out that, based on the existing empirical data, the question whether contracting out or public private partnerships are more efficient than self supply and public production, cannot be answered in general, making it necessary to decide on a case-by-case basis; also see G. Bel & X. Fageda (2009), 'Factors explaining local privatization: a meta-regression analysis', *Public Choice*: 139: 105-119; M. C. Wassenaar & R. H. J. M. Gradus (2004), 'Contracting out: The Importance of a Solution for the VAT Distortion', *CESifo Economic Studies* 2: 377-396, on page 380.

⁴⁸ As regards parts of Article 135, Member States are free to introduce regulations according to which taxable persons could waive the tax-exemption (Article 137).

Figure 2.5: Tax Cascading



Source: KPMG AG

2.1.14. Treatment of public sector activities as tax-exempt (i.e. Article 132)

Even if a public body is considered as taxable person, it may not in fact be obliged to pay VAT, if its activities fall under one of the tax-exemptions provided for in the VAT Directive.

Article 132 rather unsystematically lists exemptions for certain activities in the public interest, thereby covering a wide area. Some of these exemptions are related to the identity of the supplier, others relate to the qualification of the activity at issue. Concerning the identity of the supplier, some of the exemptions explicitly require a public body, whereas others refer to organisations with a formal recognition by the Member State.⁴⁹ Hospital care, for example, falls within the scope of the Exemption in Article 132(1)(b), when it is either provided by a public body or, under comparable social conditions, by duly recognised establishments.

Additionally, the 13th title of the VAT Directive provides for several stand still clauses, which are mainly the result of negotiations between old and new Member States. These exemptions are not matching with the general VAT system as laid down in the VAT Directive. Parts of these exemp-

⁴⁹ In particular, the supply by the public postal services (Art. 132(1)(a)); hospital and medical care and closely related activities (Art. 132(1)(b)); the supply of services and of goods closely linked to welfare and social security work, (Art. 132(1)(g)); the supply of services and goods closely linked to the protection of children and young persons (Art. 132(1)(h)); children's or young people's education, school or university education, vocational training or retraining, (Art. 132(1)(i)); certain cultural services and goods closely linked thereto (Art. 132(1)(n)); the activities of public radio and television bodies other than those of commercial nature (Art. 132(1)(q)).

tions are relevant for public bodies. As the exemptions are very individual, they will be discussed in the section about the adoption of the VAT Directive in the Member States.

In its case-law the ECJ developed three principles in particular, which it applies to the interpretation of exemptions in the public interest. First, since exemptions constitute an exception to the general principle of taxation of all services supplied for consideration by a taxable person, they are to be strictly interpreted.⁵⁰ Regarding this principle, it is important to realize that it may conflict with other principles, such as the neutrality and uniformity of the VAT system, which may require an exemption to be interpreted widely in order to avoid unequal treatment of similar goods.⁵¹ Second, according to the ECJ, exemptions constitute independent concepts of Community law, which must be placed in the general context of the common system of VAT introduced by the Sixth Directive.⁵² Therefore, the interpretation of exemptions must, despite the context and the purpose of the rules of which they form part of, also take into consideration the intention of the legislator at the time when the rules were introduced.⁵³

Article 133 allows Member States to impose one or more additional conditions for a group of exemptions. However, this discretionary power results in considerable differences among the Member States, as regards the application of these exemptions.

Furthermore, Article 134 includes another compulsory restriction to certain exempt activities, such as hospital, medical care and social welfare services. It states that a supply shall not be exempt, if it is not essential to the exempted transactions, or basically serves the purpose of obtaining additional income through transactions in direct competition with those of commercial enterprises subject to VAT.

In matters of the deduction of input VAT, the same effect as for non-taxable activities is also true for exempt activities. A taxable person engaging only in tax-exempt activities, according to Article 132, may not deduct any input VAT and is thus, de facto, treated as final consumer (Article 168). Given tax-exempt and non-exempt activities at the same time, the proportion of deductible input VAT will have to be calculated according to Articles 173 to 175.

⁵⁰ Case C-453/93, *W. Bulthuis-Griffioen*, (1995) ECR I-2341, at paragraph. 19.

⁵¹ See, for example Case C-106/05, *L.u.P.* (2006) ECR I-5123, regarding the interpretation of the exemption applicable to medical services (Art. 132(1)(b) of the VAT Directive).

⁵² C-141/00, *Kügler*, (2002) ECR I-6833, on the interpretation of the exemptions applicable to medical services and that applicable to welfare and social work (Art. 132(1)(b) and (g) of the VAT Directive).

⁵³ Case C-372/88 *Cricketer St. Thomas* (1990) ECR I-1345, paragraph 19, Case C-2/95 *SDC* (1997) ECR I-3017, at paragraph 22, and Case C-384/98 D (2000) ECR I-6795, at paragraph 16; Case C-169/04 *Abbey National*, Opinion of general advocate, delivered on 8 September 2005, paragraph 58; see also European Commission (2006) 'Consultation Paper on Modernising Value Added Tax Obligations for Financial Services and Insurances', on page 10.

Like Article 13, the provisions leave much room for interpretations. Likewise Article 133, Article 132 highly depends on specific national law, as the Member States have the freedom to recognise private entities as tax-exempt and to elect additional criteria for the tax-exemption. Things are complicated further, because the Member States have different concepts for the recognition of charity organisations (which often depend on not harmonised national income tax law). Thus, it could happen that a charity organisation, which operates in different Member States, cannot be sure that its activities are treated as tax-exempt in all of the Member States. The same uncertainties happen concerning private entities that are profit-oriented.

As regards the tax-exemptions in the public interest, the self-supply bias and disincentive to invest (cf. above) appear again. These effects are combined with a disincentive for the third sector to organise charitable activities.

2.1.15. Art. 132 (1) f of the VAT Directive

It should be noted that the currently existing Art. 132 (1) f of the VAT Directive offers a partial solution for VAT induced disadvantages to outsourcing.⁵⁴ However, the effect is limited.

Article 132 (1) f of the VAT Directive stipulates an exempt supply of services within a so-called cost sharing group of persons. The provision exempts the supply of services by independent groups of persons, who are carrying on an activity which is exempt from VAT or in relation to which they are not taxable persons, for the purpose of rendering their members the services directly necessary for the exercise of that activity, where those groups merely claim from their members exact reimbursement of their share of the joint expenses, provided that such exemption is not likely to cause distortion of competition. As a consequence, the supply of services from the cost sharing group to its members does not involve non-deductible input VAT.

However, the scope of Art. 132 (1) f of the VAT Directive is quite limited, since only the supply of services by the cost sharing group to its members is exempt. For example, a private company which offers support services for a public body does not benefit from the exemption. An additional problem of Art. 132 (1) f of the VAT Directive is the fact that, alike Art. 13 of the VAT Directive, it uses a terminology which opens possibilities for a range of difficult interpretation. The various possible interpretations pertaining to the likelihood of a distortion of competition, for example, lead to considerable legal uncertainties.

Furthermore, the initial costs incurred by the cost sharing group would nevertheless still include non-deductible VAT, leaving the problem of hidden VAT unsolved. Therefore, even if Art. 132 (1) f of the VAT Directive is applicable, a disadvantage for outsourcing of services would remain.

⁵⁴ This exemption has been discussed in the recent ECJ case *C-407/07 Stichting* (2008) ECR I-9615.

As a consequence, Art. 132 (1) f of VAT Directive cannot be regarded as a sufficient solution to the problems of the VAT treatment of the public sector.

If, for instance, a cost sharing group consisting of several VAT exempt medical practices acquires an MRI machine for the net price of € 1 million plus € 200,000 VAT the supply of services from the cost sharing group to its members, relating to the use of the MRI machine, would be exempt according to Art. 132 (1) f of the VAT Directive. The exemption would include consideration for the personnel necessary to operate the machine. However, the initial VAT on the acquisition of the machine by the cost sharing group would be non-deductible, since the group only engages in exempt supplies. As a consequence, this VAT burden would be forwarded as a hidden cost element of the price charged by the cost sharing group to its members.

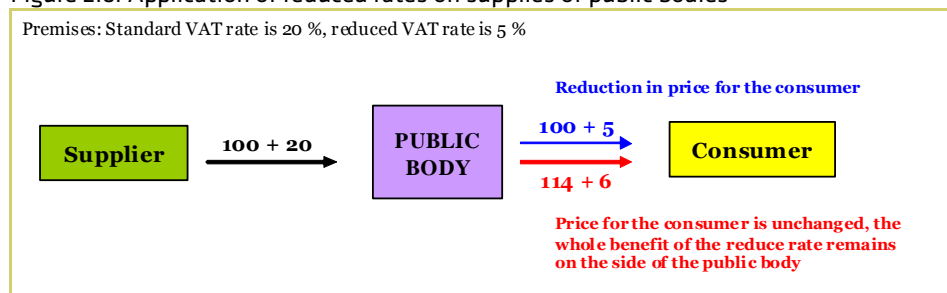
It becomes evident that only insofar the supply of services of the cost sharing group does not involve incurred input VAT the self-supply bias, disincentive to outsourcing and the cascade effect are effectively neutralised.

2.1.16. Reduced tax rates

Article 98 of the VAT Directive allows Member States to introduce one or two reduced tax rates, which should generally only be applied to the services listed in Annex III. As stated by Article 99(2), the minimum rate in general is 5 per cent, cf. Figure 2.6.

However, as an exception to this rule, Member States which, at 1 January 1991, were applying reduced rates lower than this may according to Article 110(1) continue to grant those exemptions, as long as they have been adopted for clearly defined social reasons and for the benefit of the final consumer. As a result, some Member States have so called 'zero rates'. As opposed to ordinary exemptions which involve the loss of input deduction, zero rates have the effect of relieving the taxable person from the obligation to pay and charge VAT, while at the same time allowing the deduction of input VAT.

Figure 2.6: Application of reduced rates on supplies of public bodies



Source: KPMG AG

For both non-taxable, tax-exempt activities and for the application of reduced tax rates, the situation is further complicated by the rule that ancillary supplies generally share the same regime, applicable to the principal supply, for it is particularly hard to determine which supplies are actually ancillary.⁵⁵

2.1.17. Subsidies

Public bodies, as well as charity organisations, often rely on subsidies for their supplies. Article 73 states that the taxable amount shall generally include those subsidies that are directly linked to a supply. In matters of subsidies paid to private entities held by public bodies or subsidies paid to charity organisations, it is often unclear whether these subsidies are to be understood as remuneration and therefore are liable to VAT. This is the case, if the receiving entity is rendering a service and the subsidy is a direct-linked remuneration.

On the contrary, a subsidy not directly linked to a supply does not necessarily decrease the amount of deductible input VAT. Only in particular for apportionment of input tax situations Article 174 (1) second paragraph allows the Member States to include in the denominator the amount of subsidies, other than those directly linked to the price of supplies, in the denominator.

In practice, the question whether a subsidy is directly linked to a supply is particularly difficult to answer, often causing disputes with the tax authorities about the actual nature of the payment.⁵⁶

⁵⁵ The ECJ case C-434/05 *Horizon College* (2004), ECR I-11237 is a good example for the complexity of the regulatory concept of Article 132.

⁵⁶ C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, at 436.

2.2. ADOPTION IN THE MEMBER STATES

2.2.1. General problems concerning the adoption

As highlighted above, the provisions of the VAT Directive, concerning the treatment of public sector bodies and exemptions in the public interest, leave room for interpretation. It is therefore not surprising that Member States have a different understanding, for instance, of terms like 'bodies governed by public law' and 'acting as public authority', resulting in different transpositions among the Member States, which in many cases prove to be contrary to the notion that the ECJ has developed in its judgements. The general consequence of a conflict between national regulations and the provisions of the VAT Directive is that administrative authorities, including municipal authorities, are under the same obligation as a national court to directly apply the provisions of the VAT Directive and to refrain from applying provisions of national law, which are inconsistent.⁵⁷ Provided that the VAT Directive's provisions are unconditional and sufficiently precise, they may be relied upon by an individual against the Member State.⁵⁸ However, the individual may as well choose not to rely upon European Law, which will be advisable when he benefits from the inconsistency.

As Amand (2006) pointed out, the uncertain aspects concerning possible inconsistencies with European Law encourage arrangements with the local tax authorities, for individual cases that are normally confidential.⁵⁹ On the one hand, these individual solutions require considerable resources, particularly concerning necessary legal advice. On the other hand, usually neither part of such an arrangement will actually challenge the national regulation, with the result that the inconsistencies remain.

Furthermore, the discretionary powers, as regards the transposition of certain provisions, such as the optional exempt activities clause in Article 13 (2), counteract the aim of harmonising the Member State's VAT regimes. This effect is reinforced by the various exceptions from the provisions applicable to only some of the Member States, such as the possibility to introduce reduced VAT rates lower than 5 per cent.

As it has been noted above, regulations outside the scope of VAT, which are not subject of the harmonisation process, may also affect the application of VAT law, such as national market regulations. Another example are VAT compensation schemes outside the VAT law, which have been introduced by some Member States in order to compensate non-taxable or tax-exempt parts of

⁵⁷ Case C-103/88, *Fratelli Costanzo*, (1989), ECR 1839, at paragraph 33.

⁵⁸ Case C-8/81, *Becker*, (1982), ECR 53, at paragraph 25.

⁵⁹ C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, 440.

the public sector for their inability to deduct input tax. These compensation mechanisms will be discussed in more detail below.

2.2.2. Member State VAT treatment

In order to gather reliable information about the VAT treatment of the public sector in the different Member States KPMG has contacted its specialists within its Global Indirect Tax network in the separate Member States. For this process, KPMG has used a questionnaire specially designed for this purpose, which has been answered by each KPMG member firm in the Member States. In coordination with the Commission, sector related questions have been limited to the seven sectors of waste disposal, hospital services, cultural services, education, sport, broadcasting and homes for the elderly. In order to provide a clear structure, the information on the Member State VAT treatment is presented at three different levels of detail. The following written remarks aim to point out noticeable highlights in matters of common grounds and differences among the Member States. For this purpose, the level of detail is limited in favour of clarity. A considerably higher level of detail is included in overview tables attached to our comments. These tables are designed to help compare the situation of the different Member States, as regards the general regulations concerning the VAT treatment of public bodies and the treatment of the different sectors. The highest level of information can be found in the answered questionnaires, which are attached to this report.

General VAT treatment of the public sector

The information gathering process has confirmed that the national VAT legislations in the EU show a large variety regarding the public sector. It can be pointed out that there are, in principle, two tendencies present among the Member States. First, some Member States have adopted their national statute law very closely to the provisions of the VAT Directive. This concerns, in particular, Member States which had to make considerable adjustments of their VAT taxation system when joining the EU. However, a close legal adoption is not in every case accompanied by a correct application of the law in line with the jurisdiction of the ECJ. In Estonia, for example, many activities by public bodies are regarded as non-taxable by the tax authorities, despite possible private competition. Second, many Member States have the tendency to hold on to their traditional regulation technique, which is often quite different from the approach of the VAT Directive (e.g. the adoption of Art. 13 of the VAT Directive in Austria and Germany). However, these Member States in many cases come to the same legal result as the VAT Directive by interpretation of the national law in accordance with the European provisions. This concerns particularly older Member States and those who did not have to considerably adjust their VAT taxation system in order to join the EU.

In general, it could be confirmed that the VAT treatment of the public sector is highly dependent on the understanding of the terms 'public body' and 'public law' in each Member State. In

this respect, naturally, the different legal systems in the EU are accompanied by different perspectives of the public sector and its objectives. This fact can be regarded as a limiting factor for the harmonisation of the VAT treatment of the public sector. The terms ‘public body’ and ‘public law’ depend on the context of the respective Member State’s legal system and can hardly be defined in an isolated and different way for VAT purposes. In this regard, a perfect harmonisation of the VAT treatment of the public sector will hardly ever be possible, because of the diversity of the Member State’s legal systems.

The following remarks follow the same order as the attached questionnaires, to which the reader may refer for detailed information on each Member State.

Adoption of Article 13 (1) of the VAT Directive

The Member States have adopted the first section of Article 13 of the VAT Directive in a variety of different approaches. Some countries, such as Slovenia and Greece, introduced a regulation with almost the same wording as the VAT Directive, whereas the United Kingdom and Sweden, for example, have not at all explicitly adopted the provisions of Art. 13 of the VAT Directive in the form of statute law, but nevertheless apply basic principles of the provisions by interpretation of the existing law. Following a completely different approach, in Austria and Germany the VAT treatment of public bodies depends on a reference to the national Corporate Income Tax Act. Although this structure can hardly be regarded as a proper adoption, the German and Austrian jurisdictions, in practice, in most cases interpret the law in accordance with the provisions of the VAT Directive, leading to the same result. Yet another unique approach is present in the Hungarian VAT law, according to which a public body’s activity can only be regarded as non-taxable, if the damages caused by the public body during its public activity fall under the special damage compensation rules of the Hungarian Civil Code. Some Member States, such as Poland, have a regulation, which leads to non-taxability for the activities of certain public bodies, but did not adopt the distortion of competitions clause. In the case of Poland there is also a special exemption covering the activities of certain public bodies, which are not already treated as non-taxable.

Definitions of public bodies

Only few Member States (e.g. Malta) have in fact a specific definition of the term ‘public bodies’ in their national VAT law. Many countries use the definition provided by regulations outside the national VAT Act. In Estonia and Lithuania, for example, a definition of the term ‘public body’ is provided by the national Civil Law Code, whereas Latvia defines public bodies in reference to a regulation in the Law on Budget and Financial Management. However, in many cases there is a national regulation expressly listing certain entities, which are considered to be public bodies as regards the adoption of Article 13 of the VAT Directive (e.g. Poland, Finland and the Czech Republic). In Member States where the law does not provide a definition of public bodies the understanding of the term is usually forged by administrative guidelines and jurisdiction (e.g. the

UK). However, some entities, including municipalities and the State, are considered to be public bodies in all Member States. Most Member States understand the term 'public body' as limited to special public legal entities. However, in some Member States (e.g. Poland, Lithuania) private legal entities can, under certain conditions, be regarded as public bodies as well. For instance, in a situation where all public bodies are controlled and owned by the State.

Existence of a special public law

Most Member States distinguish between public and private law, as for instance, Austria, France, Greece and Slovenia. Many countries, such as the Netherlands, Romania and Lithuania, do not have a general public law applicable to all public bodies, but many several Acts for different public bodies, which regulate the relationships between the public body and the citizens. Some Member States, however, do not have a comparable concept of public law and civil law, which particularly concerns the common law based legal systems of the UK and Ireland.

Adoption of Article 13 (2) of the VAT Directive

The information gathering process has shown, that except for Spain and Italy there is no Member State, which elected to introduce the provisions of Article 13 (2) of the VAT Directive into national VAT law. However, in Estonia, for example, despite the absence of an adoption, tax authorities in many cases regard a public body as non-taxable, if it only renders exempt services.

Adoption of Article 132 of the VAT Directive

It can be pointed out that the provisions of Article 132 of the VAT Directive have rarely been completely adopted among the Member States. However, Cyprus and Romania, for example, have introduced the complete wording of Article 132 (1) of the VAT Directive into their national VAT legislation. Sometimes the adoption of a certain exemption is regarded as superfluous, since other exemptions are interpreted widely. In Hungary, for example, the transport of sick people is regarded to be included in the exemption for medical services.

Although in many cases countries have not adopted some of the exemptions, in some cases, Member States even introduced wider exemptions than allowed. Finland and Sweden for instance have a general exemption for services of certain non-profit organisations, which is considerably larger in scope than the provisions of the VAT Directive.

Additional conditions according to Art. 133 of the VAT Directive

The additional conditions determined in Article 133 of the VAT Directive are often adopted in connection with exemptions for non-profit organisations. In Austria, for example, several exemptions refer to acknowledged charity organisations. In order to be acknowledged as charity organisation their activities must not be to obtain profits and the exemption must not lead to a distortion of competition. However, many Member States have not adopted any of the additional

conditions of Article 133 of the VAT Directive (e.g. Bulgaria, Cyprus, Estonia, Finland and Sweden).

Relevant use of Articles 371, 374 and other stand still clauses

As mentioned above, the various exemptions allowing a derogation from the VAT Directive for specific Member States counteract an effective harmonisation. However, it can be pointed out that only few of these special exemptions are relevant to the public sector, since they concern exemptions, which equally apply to public bodies and private entities. Sometimes even Member States outside the scope of the stand still clauses exempt the mentioned services. In Austria, for instance, even though Article 371 of the VAT Directive is not applicable, there are exemptions for services by blind persons and services related to aircraft vessels used by public bodies. Although the number of allowed derogations from the VAT Directive for specific Member States is high, not all stand still clauses are actually used and cannot be reintroduced. Finland, for example, could, according to Article 379(2) of the VAT Directive and Annex X, Part B, section 10, exempt the transport of passengers, including the transport of goods accompanying them. However, Finland has not yet applied this option. Worth mentioning is also the treatment of water supplies in France. As long as a municipality has fewer than 3,000 inhabitants the supply of water in France is treated as non-taxable. Although the stand still clause of Article 371 of the VAT Directive in connection with Annex X, Part B, section 8 only allows an exemption for the supply of water by a body governed by public law, in France citation of this provision is considered to justify the treatment as non-taxable.

Reduced rates in the public sector

Most countries do not have any reduced rates which are specifically relevant for the public bodies, since the reduced rates only relate to the activity and apply to both public and private entities. However, Austria, for example, has a reduced rate of 10% for services rendered by charities. An example for a reduced rate relevant for the public sector, might be the French super-reduced rate of 2.1 per cent for the audio-visual fees collected in favour of the public service television and radio broadcasting system, which is applicable, since France has not adopted the exemption for public broadcasting services according to Article 132(1) q of the VAT Directive.

Treatment of subsidies

Most countries treat price subsidies as taxable base in accordance with the Article 73 of the VAT Directive. Only few Member States have in accordance with Article 174(1) of the VAT Directive elected to take subsidies, other than those directly linked to the price, into consideration, when calculating the pro rata proportion (e.g. Portugal, Slovenia and Hungary).

2.2.3. VAT-Treatment of the different sectors

For a comparison of the Member State VAT treatment, with reference to the different sectors, please refer to the attached tables (pages). We comment on the results in the following. These comments include a description of the sector, the VAT treatment according to the VAT Directive and certain derogations in the Member States. We do not comment on all derogations. Derogation does not necessarily mean a breach of EU law, because often special situations occur.

Waste disposal

Waste disposal is assigned to public bodies in nearly all Member States, which means that the Member States have to provide a public service offering (except Estonia where a public offer is possible). In fifteen Member States it is mandatory to use this public offer, i.e. regarding household waste. Generally, the service offer is subject to public law. It has to be noted that Bulgaria, Malta and Romania have very special public law stipulations about waste disposal.

From a perspective of the VAT Directive, waste disposal may qualify for Art. 13 of the VAT Directive, i.e. it is not mentioned in Annex I. However, the Member States seem to have different interpretations of whether waste disposal is a service which is rendered 'under public authority'. There is neither a tax-exemption according to Art. 132 of the VAT Directive, nor an exemption according to a standstill clause. It is possible for the Member States to apply a reduced tax rate (Annex III no. 18).

It is interesting to note that Austria, Slovenia and Sweden are treating their public service offerings as taxable, although they might have qualified as non-taxable, cf. Figure 2.7 and Figure 2.8. Obviously these countries assume that the public bodies are not acting under public authority. Austria and Slovenia apply a reduced tax rate instead. In Portugal the taxable public service offering seems to be tax-exempt. Besides this information, there are no reportable findings.

In the Member States where public and private providers are taxed equally, there are no special VAT problems. As all activities are taxed and input VAT is granted, there are no distortions or other negative effects at hand. Where the public sector is treated as non-taxable, this is justified by a lack of competition, due to state monopolies. However, in these countries the missing input VAT deduction causes problems (self-supply bias, disincentive to invest, tax cascading).

Figure 2.7: Waste composition I

Sector		Waste disposal										
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Assigned		Yes	Sub-contractor	Public law	Taxable	Taxable	Non-Exempt(*)	Non-Exempt(*)		No	Lawful - not aware of challenges
Belgium	Assigned		Partially	Sub-contractor and Authorised person	Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
Bulgaria	Assigned(*)		No(*)		Public law	Non-Taxable	Taxable		Non-Exempt(*)	No	No	Lawful - not aware of challenges
Cyprus	Assigned(*)		Yes and Partially(*)	Sub-contractor	Public law	Non-Taxable	Taxable		Non-Exempt(*)	No	No	Lawful - not aware of challenges
Czech Republic	Assigned		No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Denmark	Assigned(*)		Partially	Sub-contractor(*)	Public law	Taxable	Taxable(*)	Non-Exempt	Non-Exempt(*)		No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned		Partially(*)	Sub-contractor	Public law	Taxable(*)	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
France	Assigned		No		Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt(*)	Non-Exempt	No	No	Possible derogation from CVSD
Germany	Assigned		Partially(*)	Sub-contractor(*)	Public law(*)	Non-Taxable(*)	Taxable	Non-Exempt	Non-Exempt	No	No	Challenge by private subcontractors
Greece	Assigned		Yes	Sub-contractor	Public law	Non-Taxable				No	No	Lawful - not aware of challenges
Hungary	Assigned		No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Ireland	Assigned		Partially(*)	Sub-contractor and Authorised Person	N/A(*)	Taxable(*)	Taxable	Non-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges

Source: KPMG AG

Figure 2.8: Waste composition II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxibility or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		Yes(*)	Sub-contractor and Authorised person	Public law	Non-Taxable(*)	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Lithuania	Assigned		Yes(*)	Sub-contractor	Public law	Taxable and Non-Taxable(*)	Taxable		Non-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Not Assigned(*)	Open for public bodies	Yes(*)		Public law	Taxable and Non-Taxable(*)	Taxable	Non-Exempt(*)	Non-Exempt	No(*)	No	Lawful - not aware of challenges
Netherlands	Assigned(*)	Open for public bodies(*)	Partially(*)	Sub-contractor	Public law(*)	Non-Taxable(*)	Taxable	Non-Exempt(*)	Non-Exempt	Yes(*)	No	Lawful - not aware of challenges
Poland	Assigned		No		Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
Portugal	Assigned		No		Public law(*)	Taxable(*)	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
Romania	Not Assigned(*)	Open for public bodies(*)	No(*)		Public law		Taxable		Non-Exempt		No	Lawful - not aware of challenges
Slovak Republic	Assigned		No		Civil law	Taxable(*)	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Slovenia	Assigned		Yes	Sub-contractor	Public law	Taxable	Taxable	Non-Exempt(*)	Non-Exempt(*)		N/A	Lawful - not aware of challenges
Spain	Assigned		Partially(*)	Sub-contractor and Authorised person	Public law	Non-Taxable	N/A		N/A	No	No	Lawful - not aware of challenges
Sweden	Assigned		Yes	Sub-contractor	Public law	Taxable	Taxable(*)	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
UK	Assigned		Partially(*)	Sub-contractor	N/A(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt	Non-Exempt	Yes(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

Cultural services

Cultural services are assigned to public bodies in nearly all Member States – except France, Hungary and the Netherlands, where public bodies may have a service offering. Generally, this sector is open for private service offerings. Only Greece seems to know some limitations. There is no uniform picture concerning the application of public or private law to public service offerings.

According to the VAT Directive, cultural services may qualify for Art. 13 of the VAT Directive, i.e. they are not mentioned in Annex I. Under the conditions set in Art. 132(1)(n) of the VAT Directive the services may be tax-exempt. There are quite a lot stand still clauses, which allow further exemptions (Art. 371, 375, 376, 377, 379(2), 384, 389 of the VAT Directive). It is also possible to apply a reduced rate according to Annex III no. 7.

In general, public service offerings are treated as taxable. Exemptions from that are Cyprus, Greece and Estonia (theatres only), which, in many cases, seem to treat public bodies as non-taxable. The same applies to Poland, which is treating public bodies as non-taxable, if services are offered on a public law base, regardless of a possible distortion of competition. In Denmark and Finland there are legal uncertainties whether a public service offering is non-taxable or tax-exempt. Furthermore, in Finland it seems possible for private organisations to be treated as non-taxable, cf. Figure 2.9 and Figure 2.10.

Usually, taxable service offerings are treated as tax-exempt, if the conditions set in Art. 132(1)(n) of the VAT Directive or the respective national law are met – regardless whether a public or a private offer is concerned. The tax-exemption seems to be interpreted very strictly in Estonia, Finland, Hungary, Malta and Portugal.

Basically, the VAT Directive provision should lead to an equal taxation (exemption) of public and private supplies. In these cases the missing opportunity to deduct input VAT causes self-supply biases, disincentive to invest and tax cascading. However, as Article 132 of the VAT Directive and its adoption in many Member States differentiate between different legal forms (public body, charity, private), there are quite a lot of distortions of competition at hand.

Figure 2.9: Cultural services I

Sector Cultural services												
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt	Non-Exempt(*)	No	No	Lawful - not aware of challenges
Belgium	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	Yes(*)	Lawful - not aware of challenges
Bulgaria	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Cyprus	Assigned(*)		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Czech Republic	Assigned		No		Public law and Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Denmark	Assigned(*)	Open for public bodies(*)	No		Public law	Taxable and Non-Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Taxable and Non-Taxable(*)	Taxable	Non-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned		No		Public law	Non-Taxable(*)	Taxable and Non-Taxable(*)		Non-Exempt	Yes(*)	No	Lawful - possible challenges(*)
France	Not Assigned	Open for public bodies	No		Civil law(*)	Non-Taxable(*)	Taxable	Non-Exempt(*)	Non-Exempt(*)	No	No	Lawful - not aware of challenges
Germany	Not Assigned(*)	Open for public bodies	No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Greece	Assigned		Partially(*)	Sub-contractor	Public law	Non-Taxable	Taxable		Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Hungary	Not Assigned	Open for public bodies	No		Public law	Taxable	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt	No	No	Lawful - not aware of challenges
Ireland	Assigned		No		N/A(*)	Taxable(*)	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges

Source: KPMG AG

Figure 2.10: Cultural services II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Lithuania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Assigned		No		Public law	Taxable	Taxable	Non-Exempt and Tax-Exempt(*)	Tax-Exempt	No	No	Lawful - not aware of challenges
Netherlands	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	Yes(*)	No	Lawful - not aware of challenges
Poland	Assigned		No		Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Portugal	Assigned		No		Public law(*)	Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt	No(*)	No	Lawful - not aware of challenges
Romania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Slovak Republic	Assigned		No		Public law and Civil law (*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Slovenia	Not Assigned(*)	Open for public bodies	No		Public law and Civil law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	N/A	Lawful - not aware of challenges
Spain	Not Assigned(*)	Open for public bodies	No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Sweden	Assigned and Not Assigned(*)	Open for public bodies	No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
UK	Not Assigned(*)	Open for public bodies	No		N/A(*)	Taxable	Taxable	Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	Yes(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

Education

Education is assigned to public bodies in nearly all Member States (except Estonia). In no Member State is it mandatory to use the public service offering. In nearly all countries public law is applicable, cf. Figure 2.11 and Figure 2.12.

From a perspective of the VAT Directive, education may qualify for Art. 13 of the VAT Directive, i.e. it is not mentioned in Annex I. However, it has to be noted that a private offer is allowed in (nearly) all Member States. The services may be exempt according to Art. 132(1)(i) of the VAT Directive. No stand still clauses or reduced rates apply.

Generally, the Member States treat public service offerings as taxable, but tax-exempt. However, some countries treat public bodies as non-taxable (Cyprus, Greece, Estonia and Poland, as well as Denmark and Finland – as mentioned above, c.f. cultural services; also Austria, Germany, Italy, the Netherlands). This could be justified where the services are rendered for no consideration.

Please refer to our comments about cultural services for an evaluation

Figure 2.11: Education I

Sector Education												
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Assigned		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Belgium	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	Yes(*)	Lawful - not aware of challenges
Bulgaria	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Cyprus	Assigned(*)		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Czech Republic	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Denmark	Assigned(*)		No		Public law	Non-Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned		No		Public law	Non-Taxable(*)	Taxable		Tax-Exempt	Yes(*)	No	Lawful - not aware of challenges
France	Assigned		No		Public law(*)	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Germany	Assigned(*)		No		Public law	Non-Taxable(*)	Taxable		Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Greece	Assigned		No		Public law	Non-Taxable	Taxable		Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Hungary	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Ireland	Assigned		No		N/A(*)	Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges

Source: KPMG AG

Figure 2.12: Education II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Lithuania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Netherlands	Assigned(*)	Open for public bodies(*)	No		Public law and Civil law(*)	Non-Taxable(*)	Taxable		Tax-Exempt(*)	No	Yes(*)	Lawful - not aware of challenges
Poland	Assigned(*)		Yes(*)		Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Portugal	Assigned		No		Public law(*)	Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Romania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Slovak Republic	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Slovenia	Assigned and Not Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	N/A	Lawful - not aware of challenges
Spain	Not Assigned(*)	Open for public bodies	No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Sweden	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
UK	Assigned		No		N/A*	Taxable	Taxable	Tax-Exempt	Non-Exempt and Tax-Exempt(*)	Yes(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

Hospital services

Hospital services are assigned to public bodies in nearly all Member States. Further, health care services could be offered by private institutions in all Member States. Public service offerings are subject to public and private law, cf. Figure 2.13 and Figure 2.14.

Hospital services may qualify for Art. 13 of the VAT Directive, i.e. it is not mentioned in Annex I. However, it has to be noted that a private offer is allowed in all Member States. The services may be exempt according to Art. 132(1)(b) of the VAT Directive. No stand still clauses apply. A reduced rate could apply according to Annex III no. 17.

Generally, the Member States treat public service offerings as taxable, but tax-exempt. However, some countries treat public bodies as non-taxable (Cyprus, Greece, Estonia and Poland as well as Denmark – as mentioned above, c.f. cultural services; also Italy). In Greece it seems possible for private organisations to be treated as non-taxable, in special cases.

It seems common practice, by all Member States, to treat health care services as tax-exempt. Only in Austria all private offerings are non-exempt, but a reduced rate is applicable.

Please refer to our comments about cultural services for an evaluation.

Figure 2.13: Hospital Services

Sector Hospital services												
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxability of public services	3.2.2 Taxability of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Assigned		No		Civil law	Taxable	Taxable	Tax-Exempt	Non-Exempt(*)	Yes(*)	No	Lawful - not aware of challenges
Belgium	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	Yes(*)	Lawful - not aware of challenges
Bulgaria	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Cyprus	Assigned		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Czech Republic	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Denmark	Assigned(*)		No		Public law	Non-Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	Yes(*)	No	Lawful - possible challenges(*)
France	Assigned		No		Public law(*)	Non-Taxable(*)	Taxable	Tax-Exempt(*)	Tax-Exempt	No	No	Lawful - not aware of challenges
Germany	Not Assigned(*)	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Challenged by private hospitals
Greece	Assigned		Partially	Sub-contractor	Public law	Non-Taxable	Taxable		Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Hungary	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Ireland	Assigned		No		N/A(*)	Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No(*)	Lawful - not aware of challenges(*)

Source: KPMG AG

Figure 2.14: Hospital Services II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxability of public services	3.2.2 Taxability of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Lithuania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Netherlands	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Poland	Assigned(*)		Yes(*)	Sub-contractor and Authorised person	Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Portugal	Assigned		No		Public law(*)	Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Romania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Slovak Republic	Assigned		No(*)		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Slovenia	Not Assigned(*)	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	N/A	Lawful - not aware of challenges
Spain	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Sweden	Assigned		No		Public law and Civil law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
UK	Assigned		No		N/A(*)	Taxable	Taxable	Tax-Exempt	Tax-Exempt	Yes(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

Homes for the elderly

Care services and accommodation in homes for the elderly are assigned to public bodies in only half of the Member States. Health care services could be offered by private institutions in all Member States. Public service offerings are mainly subject to private, and sometimes to public law, cf. Figure 2.15 and Figure 2.16.

Services in homes for the elderly may qualify for Art. 13 of the VAT Directive, i.e. it is not mentioned in Annex I. However, it has to be noted that a private offer is allowed in all Member States. The services may be exempt according to Art. 132(1)(g) of the VAT Directive. No stand still clauses apply. Member States can introduce a reduced rate according to Annex III no. 18.

Generally, the Member States treat public service offerings as taxable, but tax-exempt (if conditions are met). However, some countries treat public bodies as non-taxable (Cyprus, Greece, Estonia and Poland, as well as Denmark – as mentioned above, c.f. cultural services; also Italy).

All Member States apply a tax-exemption except Hungary (for public and private service offerings) and Cyprus (private offerings only).

Please refer to our comments about cultural services for an evaluation.

Figure 2.15: Homes for elderly

Sector Homes for elderly												
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxability of public services	3.2.2 Taxability of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Non-Exempt(*)	Yes(*)	No	Lawful - not aware of challenges
Belgium	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	Yes(*)	Lawful - not aware of challenges
Bulgaria	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Cyprus	Not Assigned(*)	Open for public bodies(*)	No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Czech Republic	Assigned		No		Public law and Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Denmark	Assigned		No		Public law	Non-Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	Yes(*)	No	Lawful - possible challenges(*)
France	Not Assigned	Open for public bodies	No		Civil law(*)	Non-Taxable(*)	Taxable	Non-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Germany	Not Assigned(*)	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Greece	Not Assigned(*)	Open for public bodies	No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Hungary	Not Assigned	Open for public bodies	No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Ireland	Assigned		No		N/A(*)	Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges

Source: KPMG AG

Figure 2.16:Homes for elderly II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		No		Public law	Non-Taxable	Taxable		Tax-Exempt	No	No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Lithuania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Netherlands	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Poland	Assigned(*)		No		Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Portugal	Not Assigned	Open for public bodies	No		Public law(*)	Taxable(*)	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Romania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Slovak Republic	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Slovenia	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	N/A	Lawful - not aware of challenges
Spain	Not Assigned(*)	Open for public bodies	No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Sweden	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
UK	Not Assigned(*)	Open for public bodies	No		N/A(*)	Taxable	Taxable	Tax-Exempt	Tax-Exempt	Yes(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

Services in connection with sports

In several Member States services in connection with sport (e.g. facility services, admissions) are assigned to public bodies. However, the sector is open for a private offering in all countries. Public services are subject to private or public law, cf. Figure 2.17 and Figure 2.18.

Art. 13 of the VAT Directive would allow treating such services as non-taxable, if the conditions are met. In this context it is noteworthy that in all Member States a private offer is allowed. Art. 132(1)(m) of the VAT Directive exempts services in connection with sports, which are carried out by non-profit organisations. However, Art. 371 (Annex X(B)(1) of the VAT Directive for old Member States) and Art. 380 of the VAT Directive (Sweden) allow to exempt admission fees.

Generally, the Member States treat public service offerings as taxable. In accordance with the treatments of other services, Member States are treating public bodies as tax-exempt (Greece, Estonia and Poland, as well as Denmark – as mentioned above, cf. cultural services). In Germany some private offerings are treated as non-taxable, because the *Kennemer Golf & Country Club* judgement of ECJ has not been transposed so far.⁶⁰ As a consequence, Germany has no rules about a tax-exemption in this sector.

Besides this, Portugal and the United Kingdom do not exempt public sport services. Sport services cannot be treated as tax-exempt in Austria, Cyprus, Estonia, Finland (maybe non-taxable), Greece, the Netherlands and Sweden, either.

Please refer to our comments about cultural services for an evaluation.

⁶⁰ Case C 174/00, *Kennemer Golf*, (2002) ECR I-3293.

Figure 2.17: Services in connection with sports

Sector		Sport										
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	N/A
Belgium	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	Yes(*)	Lawful - not aware of challenges
Bulgaria	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Cyprus	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - possible challenges(*)
Czech Republic	Assigned		No		Public law and Civil law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Denmark	Assigned(*)	Open for public bodies(*)	No		Public law	Taxable and Non-Taxable(*)	Taxable	Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned(*)		No		Public law	Taxable(*)	Taxable	Non-Exempt	Non-Exempt	Yes(*) / No(*)	No	Lawful - not aware of challenges
France	Not Assigned	Open for public bodies	No		Civil law(*)	Non-Taxable(*)	Taxable	Non-Exempt(*)	Non-Exempt(*)	No	No	Lawful - not aware of challenges
Germany	Not Assigned(*)	Open for public bodies(*)	No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Greece	Not Assigned(*)	Open for public bodies	No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Hungary	Not Assigned	Open for public bodies	No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Ireland	Assigned		No		N/A(*)	Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges

Source: KPMG AG

Figure 2.18: Services in connection with sports II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxability of public services	3.2.2 Taxability of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt	No	No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Non-Exempt and Tax-Exempt	Non-Exempt and Tax-Exempt	No	No	Lawful - not aware of challenges
Lithuania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Netherlands	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Poland	Assigned(*)		No		Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Portugal	Not Assigned	Open for public bodies	No		Civil law(*)	Taxable(*)	Taxable	Non-Exempt	Non-Exempt and Tax-Exempt(*)	No(*)	No	Lawful - not aware of challenges
Romania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Slovak Republic	Assigned		No(*)		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Slovenia	Not Assigned(*)	Open for public bodies	No		Public law and Civil law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	N/A	Lawful - not aware of challenges
Spain	Not Assigned(*)	Open for public bodies	No		Public law	Taxable	Taxable	Tax-Exempt(*)	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Sweden	Not Assigned(*)	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
UK	Not Assigned(*)	Open for public bodies	No		N/A(*)	Taxable	Taxable	Non-Exempt	Non-Exempt and Tax-Exempt(*)	Yes(*) / No(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

Broadcasting services

In several Member States basic broadcasting services are assigned to the public authorities. In all countries the market is open for private offerings. Some Member States apply public law, others do not.

The services can be treated as non-taxable. According to Art. 13 of the VAT Directive (Annex I limits this to the activities referred to in Art. 132). Art. 132(1)(q) of the VAT Directive stipulates that non-commercial activities of public broadcasting services are tax-exempt. However, Art. 370 of the VAT Directive (old Member States), 378 of the VAT Directive (Austria) and 379(1) of the VAT Directive (Finland) allow some Member States to treat even these services as non-exempt. Annex III, no. 8 opens the possibility to apply a reduced rate to certain services, in connection with broadcasting.

Nearly all Member States treat the basic services as taxable, but tax-exempt. Estonia, Greece and Poland treat them as non-taxable (cf. above cultural services). Germany and Italy treat the services as non-taxable (thus, there is no tax-exemption available). Also Spain and the United Kingdom treat the services as non-taxable. Noteworthy is that in the United Kingdom the broadcasting services are rendered by a public-held private company, the BBC. It seems that some other countries also treat private companies as tax-exempt (Czech Republic, Republic of Ireland, the Netherlands, Poland, Romania and Slovenia), cf. Figure 2.19 and Figure 2.20.

The tax-exemption for public broadcasting is neither granted in Austria, Belgium, France and Finland (stand still clauses), nor in Latvia and Portugal.

As public broadcasting has special aims, the differential VAT treatment in certain Member States could be justified. Whereas private broadcasting services are usually financed 100% through advertisements (non-exempt), public services are usually partially financed through public funding (exempt) and advertisements (non-exempt). Where the public service is treated as tax-exempt, the same problems occur as with education, culture etc. (self-supply bias, disincentive to invest, tax cascading). The private provider is not suffering from these problems.

Figure 2.19: Broadcasting

Sector Broadcasting												
Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxibility of public services	3.2.2 Taxibility of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxibility or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Austria	Assigned		No		Public law	Taxable	Taxable	Non-Exempt(*)	Non-Exempt(*)		No	Lawful - not aware of challenges
Belgium	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Bulgaria	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Non-Exempt	No	No	Lawful - not aware of challenges
Cyprus	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - possible challenges(*)
Czech Republic	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt(*)	Non-Exempt	No	No	Lawful - not aware of challenges
Denmark	Assigned(*)		No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Estonia	Not Assigned	Open for public bodies	No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Finland	Assigned(*)		No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
France	Not Assigned	Open for public bodies	No		Civil law(*)	Taxable	Taxable	Non-Exempt	Non-Exempt(*)	No	No	Lawful - not aware of challenges
Germany	Assigned(*)		No		Public law	Taxable and Non-Taxable(*)	Taxable	Non-Exempt(*)	Non-Exempt	No(*)	No	Lawful - not aware of challenges
Greece	Assigned		No		Public law	Non-Taxable	Taxable		Non-Exempt	No	No	Lawful - not aware of challenges
Hungary	Not Assigned	Open for public bodies	No		Public law	Taxable	Taxable	Tax-Exempt(*)	Non-Exempt	No	No	Lawful - not aware of challenges
Ireland	Assigned		No		N/A(*)	Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges

Source: KPMG AG

Figure 2.20: Broadcasting II

Question	3.1.1 Service assigned to public bodies	3.1.2 Services may be provided by public bodies?	3.1.3 Mandatory use of public service offerings	3.1.4 Possible involvement of private entities in public offerings with mandatory use	3.1.5 Applicable law for public service offering	3.2.1 Taxability of public services	3.2.2 Taxability of private services	3.2.3 Exemptions for taxable public services	3.2.4 Exemptions for taxable private Services	3.2.5 Input deduction despite non-taxability or tax-exemption	3.2.6 Planned amendments of VAT law/ pending cases	3.2.7 Accordance of VAT law with CVSD
Italy	Assigned		No		Public law	Taxable and Non-Taxable(*)	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Latvia	Assigned		No		Public law	Taxable	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Lithuania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Malta	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
Netherlands	Not Assigned	Open for public bodies	No		Civil law	Taxable	Taxable	Tax-Exempt(*)	Non-Exempt(*)	Yes(*)	No	Lawful - not aware of challenges
Poland	Assigned(*)		No		Public law and Civil law(*)	Taxable and Non-Taxable(*)	Taxable	Non-Exempt and Tax-Exempt(*)	Non-Exempt and Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Portugal	Assigned		No		Civil law(*)	Taxable(*)	Taxable	Non-Exempt	Non-Exempt		No	Lawful - not aware of challenges
Romania	Assigned		No		Public law	Taxable	Taxable	Tax-Exempt	Tax-Exempt	No	No	Lawful - not aware of challenges
Slovak Republic	Assigned		No		Public law and Civil law(*)	Taxable	Taxable	Tax-Exempt(*)	Non-Exempt	No	No	Lawful - not aware of challenges
Slovenia	Assigned and Not Assigned(*)		No		Public law and Civil law	Taxable	Taxable	Tax-Exempt	Non-Exempt and Tax-Exempt(*)	No	N/A	Lawful - not aware of challenges
Spain	Not Assigned(*)	Open for public bodies	No		Public law	Non-Taxable	Taxable		Tax-Exempt(*)	No	No	Lawful - not aware of challenges
Sweden	Assigned(*)		No		Public law	Taxable	Taxable	Tax-Exempt	Non-Exempt	No	No	Lawful - not aware of challenges
UK	Assigned		No		N/A(*)	Non-Taxable	Taxable		Non-Exempt	Yes(*)	No	Lawful - not aware of challenges

* for additional comments please see the questionnaire of the respective country

Source: KPMG AG

General remark for all sectors concerning input VAT

In regards to the deduction of input VAT, it has to be noted that, in general, such a deduction is not granted in the Member States where a service is treated as non-taxable or tax-exempt. The only derogations from this principle are the Member States with a special compensation or refund system.

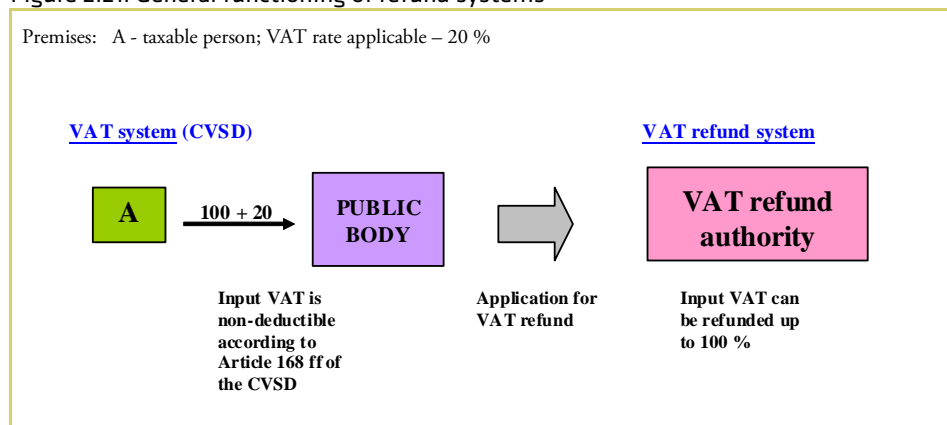
2.2.4 Compensation outside the scope of the VAT Directive

With the intention to counteract the bias towards self-supply, Austria, Denmark, Finland, France, the Netherlands, Portugal, Sweden and the United Kingdom have introduced systems designed to compensate public bodies for the inability to deduct input VAT.⁶¹ These compensation systems appear in different forms, for the most part being outside the national VAT regime.⁶² In the following, we understand ‘compensation system’ as a general term covering systems which grant a refund for non-deductible input tax, as well as other systems designed to address VAT issues, as regards the public sector, such as a compensation for expected hidden VAT included in the price of an exempt transaction, which is provided by a private entity to a public body.

⁶¹ It has to be noted that some Member States might use individual compensation methods for certain sectors. These are discussed in the section about the adoption in the Member States (2.3.2).

⁶² See X. Yang (2005) ‘VAT Treatment of Government Procurement: A Comparative Analysis’, *International VAT Monitor* 5: 342-348, pointing out that Finland has actually formally incorporated the refund mechanism in the Finnish VAT Act of 1993.

Figure 2.21: General functioning of refund systems

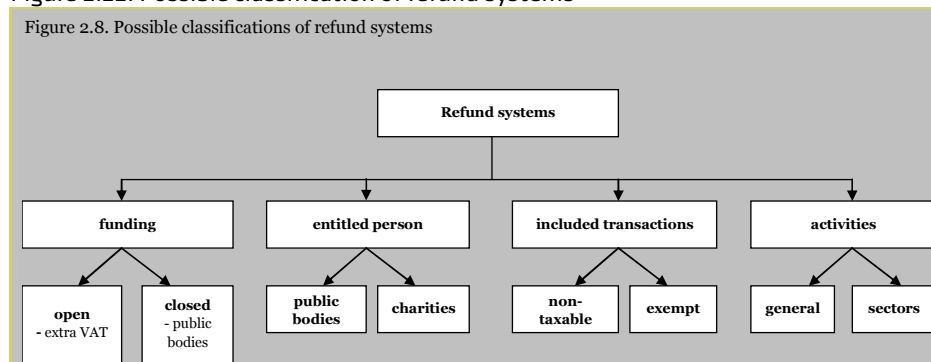


Source: KPMG AG

2.2.5. Categories of refund schemes

Refund schemes may be globally categorized in terms of four characteristics, namely the funding of the system, the person entitled to a refund, the covered transactions and whether the refund is general or sector related, cf. Figure 2.22.

Figure 2.22: Possible classification of refund systems



Source: KPMG AG

First, refund systems may be divided into open systems, funded by the extra VAT receipts from additional contracting out and closed systems, funded by the public bodies themselves⁶³. Second, the system may only entitle public bodies to a refund, but it is also imaginable to entitle non-governmental persons, such as charities, too. Third, the system may either include non-taxable activities, as well as exempt activities(Swedish system) or it may be restricted to non-taxable activ-

⁶³ M. C. Wassenaar & R. H. J. M. Gradus (2001), 'Contracting out: the importance of a level playing field', Research memorandum 0108, Erasmus University Rotterdam, on page 11.

ities, such as the French system. Fourth, the system may grant a general refund or be restricted to certain sectors or to certain kinds of privatisation, such as public private partnership projects. Finally, the refund systems could be either limited to inland input VAT or open for foreign VAT (the Netherlands only).

Box 2.1: Changing financing of the Danish VAT compensation fund

In 2007, financing of the Danish VAT compensation fund, *momsudligningsordningen*, was changed. Prior to 2007, municipalities and county authorities operated the VAT compensation fund, both drawing from the fund according to their eligible VAT expenditure as well as paying to the fund in accordance with their individual tax bases to cover the claims made on the fund. General block grants from the state to municipalities and county authorities took the burden of financing the compensation fund into account.

The new way of financing the VAT compensation means that the fund is now managed by the state directly rather than by the users themselves. At the same time general block grants from the state to the municipalities and county authorities are reduced in accordance with the size of reimbursements, cf. *Indenrigs- og Sundhedsministeriet*, notes to 'forslag til Lov om konkurrencemæssig ligestilling...', article 2.1.

"The bill changes the VAT compensation scheme so that municipalities and counties will no longer be charged a separate contribution to VAT. The cost of the scheme is hereafter paid by the state. The general block grants to municipalities are reduced and an estimate of the anticipated reimbursement expenditures will be included in the determination of the first general block grants to the regions. Cost changes in the reimbursement system will be included as a factor in determining future block grants."

Two of the reasons motivating the change in finance were the following. *First*, municipalities and county authorities reported that it was difficult to understand the payment flows occurring under the old system, since there were no direct connection between the size of block grants from the state and a municipality's payment to the VAT compensation fund. The new system more closely ties payments from the state to municipalities' VAT compensation. *Second*, municipalities found that direct self-contribution to the compensation fund limited their incentive to contract out. In particular, large municipalities and county authorities with high tax bases found, that they financed a significant share of their own compensation. Involving the state directly in financing the VAT compensation fund should avoid the disincentive to contract out.

The change in finance in Denmark was inspired by similar changes made to compensation schemes in both Sweden and Finland.

According to Head of Section Eva Lisby, the Ministry of the Interior and Social Affairs has not received any complaints in the new system since its inception.

Note: All sources are in Danish. Text translated to English by Copenhagen Economics.

Sources: Indenrigs- og Sundhedsministeriet, 'Forslag til Lov om konkurrencemæssig ligestilling mellem kommuners og regioners egenproduktion og køb af ydelser hos eksterne leverandører i relation til udgifter til merværdiafgift m.v. samt om momsfondet', 29. marts 2006. (Available in Danish at <https://www.retsinformation.dk/Forms/R0710.aspx?id=89127>). Indenrigs- og Sundhedsministeriets Finansieringsudvalg, 'Et nyt udligningsystem', betænkning nummer 1437, bind 1 + 2, januar 2004.

Table 2.1: Definitions used in refund systems

Definitions		
Funding	<i>Open</i>	Refund is funded by extra VAT deriving from outsourcing
	<i>Closed</i>	Refund is funded by public bodies (public subsidies are reduced correspondingly)
Entitled Persons	<i>Public Bodies</i>	Refund is only available for all or certain public bodies
	<i>Charities, Others</i>	Refund is available for all or certain entities (often combined with activities in a certain sector)
Included Transactions	<i>Non-taxable</i>	Refund is (only) available for non-taxable transactions
	<i>Tax-exempt</i>	Refund is (also) available for tax-exempt activities
Activities	<i>General</i>	Refund system is available for all sectors
	<i>Certain Sectors or Activities</i>	Refund system is only available in certain sectors (e.g. health care) or for certain activities (e.g. public private partnerships)

Source: KPMG AG

2.2.6. Compensation systems currently in operation

The KPMG information gathering process has confirmed that the Member States' compensation systems reflect a large variety in scope, reaching from sector related, relatively small recoverable proportions to a complete refund of non-deductible input VAT. Some systems, such as the Austrian refund system, only compensate for input VAT linked to exempt activities, whereas other Member States only compensate for input VAT linked to non-taxable activities (e.g. the Netherlands, Denmark) or both (e.g. Sweden, Finland). Some Member States even operate two different compensation mechanisms, such as Finland, Sweden and the United Kingdom.

Austria

The Austrian compensation system can be described as sector related, since only physicians, dentists, nursing homes, retirement homes, hospitals, convalescent homes and social security entities are entitled to a refund for non-deductible VAT. The legal basis of the Austrian refund system lies outside the VAT law and within the Austrian Health and Social Security Code.⁶⁴

In 2008 social security entities received a total refund of € 560 million . Unlike the other refund systems within the EU, the Austrian refund scheme is limited to input VAT that is linked to exempt services. Input VAT linked to activities outside the scope of VAT is not refundable. Another remarkable point about the Austrian compensation system is that it is not limited to public bodies, but in some cases also applicable to private entities (e.g. physicians). However, private hospitals are not entitled to a refund, because they can recover any input VAT. The amount of

⁶⁴ Gesundheits- und Sozialbereich-Beihilfengesetz.

refundable input VAT depends on the entity claiming the refund. While hospitals and convalescent homes are entitled to a refund of the exact amount of non-deductible input VAT connected with the exempt services, the other entities may only claim a certain percentage of their turnover. This percentage currently amounts to between 3, to almost 7 per cent and depends on which entity claims the refund. Health insurances, for example, currently receive a refund of 4.3 per cent. The funds are distributed by the Austrian Central Government.

Administration costs for the application of the compensation system are relatively low. Only hospitals and convalescent homes must keep record of refundable input VAT, which requires an adaptation of their accounting system. However, after this adaptation continuing compliance costs are relatively low.

In practice, the Austrian compensation system is considered to succeed in preventing public bodies' incentive to self-supply. However, this result is only fully achieved as far as public hospitals and convalescent homes are concerned, since only these entities may recover the total amount of input VAT incurred. The refund for the other entities is usually smaller than the actual amount of non-deductible input VAT. As a consequence, the incentive to self-supply is only partially eliminated. Regarding other entities, the incentive to self-supply is only partially eliminated as the compensation does not depend on the amount of input VAT actually incurred. Austrian private hospitals are complaining about the compensation system causing a disadvantage, since they have to charge (reduced) VAT on their services, in order to obtain an input VAT refund.

Denmark

Denmark has introduced a compensation system for public bodies. The Danish compensation system may be regarded as a general refund, since it applies to all sectors. Although for the most sectors compensation is only granted in connection with specific activities, municipalities and regions, however, are entitled to a refund of almost all costs, subject to very few exemptions. The Danish refund system applies to input VAT linked to non-taxable, as well as to exempt activities. Since 2007 the system is financed through a compensation fund, which is managed by the State directly. However, the general grants from the State to the municipalities and county authorities are reduced in accordance with the size of reimbursements. As a consequence, the Danish compensation system can be characterised as closed system, since it is in fact financed by the beneficiaries themselves. In principle, the Danish system is considered to eliminate the public bodies' incentive to self-supply. However, unlike Sweden and Finland, Denmark has no compensation mechanism which is designed to compensate for hidden VAT included in the price of exempt supplies by private entities.

There is also a refund available for certain charity organisations, which are approved by the Danish tax authorities. These organisations can apply for a refund each year. The refund amount is calculated as follows:

$$\text{VAT expenses in current year} - \text{VAT expenses held in 2004}$$

Each year is compared with 2004 as 'the basis year'.

The 'independent financing' is calculated as the size of revenue the organisation receives in the form of gifts from private persons, from sale of goods, from events etc., compared to the total revenue including contributions from public bodies, for instance the state. In other words: the better an organisation is to fundraise money itself the bigger VAT refunds it gets.

Furthermore, only expenses which are deductible according to the Danish VAT legislation can be refunded, e.g. there is only $\frac{1}{4}$ VAT refund for expenses regarding hotel expenses.

Finland

The Finnish VAT law contains two different compensation mechanisms.

First, the Finnish VAT Act comprises a refund system, which allows certain public bodies to receive a refund for input VAT included in acquisitions, linked to exempt or non-taxable activities. It is not limited to a special sector and can be consequently described as a general refund system. However, there are certain exemptions, i.e. exempt activities for which no refund may be claimed (e.g. received transactions for the purpose of leasing of exempt immovable property).

The second system aims to compensate public bodies for hidden VAT, which is expected to be included in the price of received transactions. In addition to the first refund system, it entitles municipalities to a refund of a calculated 5 per cent of the purchase price on goods and services related to health and medical care and social welfare, if these services are acquired exempt from tax. The scheme covers services, which are acquired from private firms, the State, non-profit organisations or other entities. Transactions made by one municipality to another municipality, however, are outside the scope of the scheme. The amount of 5 per cent is considered to correspond to the approximate amount of hidden VAT, caused by the inability of the private provider to deduct input tax, because of the exemption. Also covered are subsidies granted by municipalities to persons carrying out health and medical care or social welfare when the subsidies are granted for the purpose of these activities. It does not cover subsidies or aids given from one municipality to another.

Both refund schemes are applicable to municipalities, municipal public utilities and federations of municipalities. However, purchases made by the State, State owned public utilities or private firms are outside the scope of the refund schemes.

In the year 2008 more than 1.5 billion Euros were paid to the municipalities as compensation. The schemes are financed by the central government (i.e. the State of Finland). However, since prevailing system was introduced in 2002, the amount of compensation received by municipalities has had influence on the amount of corporate tax revenues granted from the budget of the State to municipalities. Insofar, the compensation mechanism could be deemed to be partially financed by the municipalities themselves. In case they apply, the Finnish compensation schemes are considered to eliminate the public bodies' incentive to self-supply. Since public bodies have to keep separate accounts for VAT, which is deductible according to the standard provisions and for the refundable VAT, the compensation schemes involve extra administration costs. These additional costs, however, are considered to be relatively minor.

France

France operates a VAT compensation fund.⁶⁵ The French approach is different from most of the other Member States, as local government authorities receive a fixed rate of 15.482 per cent compensation for the VAT that they pay on their investment expenses. In principle, legal entities governed by public law are entitled to this compensation. However, private entities, as well as central government bodies are excluded from the scope of the system. The refund is limited to input VAT that is linked to non-taxable activities, whereas input VAT linked to exempt activities is not refunded. Only input VAT in connection with investment expenses for fixed assets of the public body qualify for a refund. Common practice shows that the refunds are financed by the central government. However, specific State subsidies have to be deducted from the attribution base of the refund system, leading to partial financing by the beneficiaries of the scheme, where they have been computed VAT included. Unlike the refund mechanisms in other Member States, the French refund is not granted immediately on a monthly basis, but generally two years after the actual investment costs. It has to be pointed out that since the compensation of 15.482 per cent is higher than the reduced French VAT rate of 5.5 per cent, the refund system can even cause a financial gain for a public body receiving mostly services subject to the reduced rate.

In the year 2009 the amount of refund paid was assessed at approximately € 5.8 billion. In principle, the French refund mechanism, like the Dutch Refund system, does not legally exclude VAT paid in other Member States.

Netherlands

In the year 2003 the Netherlands introduced their compensation scheme for municipalities, provincial authorities and designated regional governments. It does only apply to these public bodies and can be characterized as a general refund since it is not limited to certain sectors. Private entities and other public bodies are, however, excluded from compensation.

⁶⁵ Fonds de Compensation pour la TVA.

The scope of the Dutch compensation scheme only covers non-deductible input VAT connected to activities of the public body which are outside the scope of VAT. Input VAT connected to exempt services is not refunded. This includes activities of a public body which are non-taxable but would be tax-exempt if they were provided by a VAT entrepreneur (e.g. hospital services). This exception serves to prevent an unfair advantage of public bodies compared to private entities which render the same services. Non-deductible VAT connected to activities from which specific individuals or groups of individuals benefit is also excluded from compensation.

In 2008 and 2009 the annual compensation payments amounted to approximately € 2.4 billion and € 2.5 billion respectively. This amount is in principle financed by the municipalities and provincial authorities themselves, via a reduction of the general grants given to these users. The reduction is calculated for each individual user on the basis of a formula with a number of variables. However, the reduction is not linked to the size of compensation payments for the individual user. Reductions per user have been fixed since a few years. As a result, the Dutch central government will finance an 'over claim' of VAT compensation by the group of users as a whole via its VAT revenues. Therefore, besides these 'over claims' the Dutch refund system may be regarded as a closed system.

The introduction of the compensation scheme in 2003 caused a temporal increase in compliance and administration costs. However, after the process was significantly simplified in 2007 the compliance costs decreased. The public body must keep record of refundable input VAT and file an annual request for compensation. For certain costs an advance payment is possible.

The Netherlands system is unique in the respect that it also compensates for VAT paid in other EU Member States, as well as Norway, Iceland and Liechtenstein. It is generally considered to succeed in eliminating the public bodies' incentive to self-supply. However, an incentive to self-supply remains where input VAT cannot be recovered, because it is linked to tax-exempt services.

Portugal

Portugal operates a refund mechanism on the legal basis of various individual Decree-Laws. The Portuguese compensation system compensates certain entities in special sectors for incurred input VAT. The entities benefitting from this compensation scheme are for example the army, political parties, the church, social solidarity bodies and fire departments. In some cases the compensation covers input VAT linked to non-taxable activities, such as the activities of fire departments, and sometimes also covers exempt activities (e.g. social solidarity bodies). The Portuguese compensation system can be characterized as open, since it is exclusively financed by the State. In order to receive a refund the respective invoice has to be delivered. The process is not complicat-

ed and does not cause high administration costs for the beneficiaries. Like in most other refund systems only VAT paid in Portugal can be refunded.

Sweden

As Finland, Sweden operates two different compensation schemes, one more general refund system and another system aiming to compensate public bodies for hidden VAT.

The more general refund system covers input VAT incurred for exempt activities, as well as input VAT incurred for non-taxable activities. Municipalities, regional governments, county councils, associations of local governments and central government bodies are entitled to a refund for transactions received from the private sector. Private companies are outside the scope of the refund system. Where the system applies, benefitting public bodies may claim a refund on a monthly basis.⁶⁶ The system is, in principle, financed by the central government.

The second system allows municipalities to receive compensation of 6 per cent when they purchase exempt services from private firms in the sector of health care, dental care, social care or education.⁶⁷ The central government is not entitled to this compensation. As the second refund scheme in Finland, the Swedish system is also designed to compensate for hidden VAT included in the price of these supplies, because of the inability of the private supplier to deduct input VAT linked to these exempt transactions.

Both Swedish refund schemes are financed by the central government on a monthly basis. In case the schemes apply, they are considered to succeed in eliminating the public body's incentive to self-supply. However, in certain cases the possibility of a refund might lead to unfair competition if the same activity is exempt and if provided by a private entity. In these cases the private provider will be in a disadvantage since, unlike the public body, no refund of non-deductible input VAT is possible.

In 2009 approximately a total of € 5 billion was refunded. A refund of input VAT paid in another country is not granted.

United Kingdom

In the United Kingdom two different compensation schemes can be distinguished.

First, the UK VAT law to a certain extent generally allows the deduction of input VAT, although it is attributable to exempt transactions if the proportion of this input VAT incurred is insignificant in relation to input VAT attributable to taxable non-exempt transactions. This 'partial ex-

⁶⁶ This applies only to authorities, for municipalities the application can cover 1-3 calendar months.

⁶⁷ In certain cases the compensation is 18 percent.

emption de minimis limit' allows the taxable person to treat exempt input tax as if it were taxable input tax and recover it in full if the total value (directly attributable plus the exempt proportion of any residual input tax) is less than a prescribed amount.⁶⁸ The general limit applicable to private traders in this respect is that input VAT relating to exempt transactions must not exceed GBP 625 per month and half of the total input tax in the relevant period. In other words, input VAT attributable to exempt services will still be deductible as long as the amount of this input VAT does not exceed GBP 625 in the respective month. However, the limit for certain public bodies is far more generous, allowing them to fully deduct their input VAT incurred if it does not exceed 5 per cent of the total VAT recoverable during the financial year. If, however, the public body exceeds this limit it cannot deduct any input VAT attributable to exempt transactions at all. In practice, the 5 per cent limit allows the respective public bodies to deduct much higher amounts of input VAT attributable to exempt transactions than the usual limit of GBP 625 per month. The different treatment of civil and public entities in this respect characterizes this first compensation mechanism. However, this special de minimis limit does not apply to all public bodies but only applies to some public bodies which are specifically mentioned in Art. 33(3) VAT Act.

Second, the other refund scheme applies specifically to governmental departments, which cannot apply the special partial exemption de minimis limit for public bodies. Government departments may claim a refund for certain contracted out services according to Section 41(3) VATA. This compensation scheme is designed to remove a possible VAT disincentive to the use of outside contractors to perform activities which could also be self supplied by the Government department. In order to be entitled to a refund, the service to which the input VAT is attributable must not be rendered for business purposes as specified in the taxing directions by the Treasury. Input VAT for the purchase of goods linked to non-taxable activities of the government department do, in principle, not entitle to a refund. VAT may be reclaimed only on goods where they are clearly essential to the supply of the service. The Treasury 'Contracting-out Direction' is published regularly in the form of two lists, one of which lists eligible Government departments, whereas the other one lists non-business related services on which Treasury agree that VAT may be recovered. Both compensation systems in the UK do not compensate for VAT that is paid in another country.

⁶⁸ HMRC public notice 706 (9).

Figure 2.23: Overview of compensation systems

	Funding	Entitled person	Included transaction	Activities
<i>Austria</i>	Open	public bodies and private entities	exempt output	health sector
<i>Denmark</i>	Closed	public bodies and approved charity organisations	exempt and non-taxable output	General
<i>Finland 1</i>	Open	public bodies	exempt and non-taxable output	General
<i>Finland 2</i>	Open	public bodies	exempt input (hidden VAT)	health/ social welfare
<i>France</i>	Open	public bodies	non-taxable output	fixed assets investments
<i>Netherlands</i>	Closed	public bodies	non-taxable output	General
<i>Portugal</i>	Open	public bodies	exempt and non-taxable output	certain listed activities
<i>Sweden 1</i>	open	public bodies	exempt and non-taxable output	General
<i>Sweden 2</i>	Open	certain local and regional public bodies	exempt input (hidden VAT)	health sector/ social care/ education
<i>UK 1</i>	Open	public bodies	non-taxable output	General
<i>UK 2</i>	Open	government departments	non-taxable output	contracted out services

Source: KPMG AG

Table 2.2 shows which sectors are covered by refund schemes in the eight EU countries. For example, in Austria there is no compensation scheme for broadcasting, whereas health care services is covered by one.

Table 2.2: Is a particular sector covered by a refund system?

	Broadcasting	Education	Health care	Cultural services	Waste and sewage disposal	Public administration	Postal sector
Austria	No	No	Yes	No	No	No	No
Denmark	No	No	Yes	No	No	Yes	No
Finland	No	Yes	Yes	No	No	Yes	No
France	No	No	No	No	No	No	No
Netherlands	Yes	No	No	No	Yes	Yes*	No*
Portugal	No	No	No	No	No	No*	No
Sweden	No	No	No	No	No	Yes	No
United Kingdom	Yes	Yes	Yes	Yes	Yes	Yes*	No*

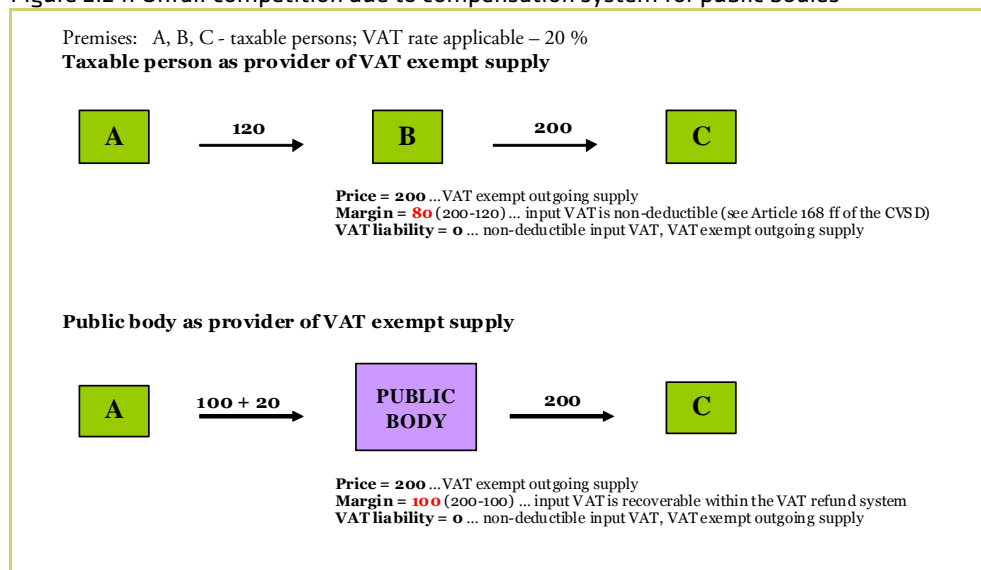
Note: For Denmark, the health care sector has a refund scheme, which is not captured in the legal questionnaire of Copenhagen Economics and KPMG AG (2011), therefore the information in the table differs from that of the report. A () indicates that Copenhagen Economics has assessed the coverage of the particular sector, based on information in Copenhagen Economics and KPMG AG (2011).*

Source: Copenhagen Economics and KPMG AG (2011).

2.2.7. Problems with compensation systems

One problem of refunding non-deductible input VAT is connected with unfair competition caused by the VAT treatment of public bodies. Since the provisions of Article 13(1), second and third paragraph, have in many cases not been properly adopted into the national Member State VAT regimes, unfair competition is still present. For these activities the distortion of competition will be even increased by additionally granting public bodies a compensation for non-deductible input VAT.

Figure 2.24: Unfair competition due to compensation system for public bodies



Source: KPMG AG

Another problem concerns the necessity to track the amount of non-deductible input VAT for compensation purposes. Non-taxable public bodies are usually not registered for VAT purposes and do not need to account for input VAT. Often they are applying simplified accounting standards or methods. A refund mechanism would require these public bodies to introduce the tracking of input VAT into their accounting system, creating considerable administrative efforts and costs. Furthermore, the introduction of a refund system involves administrative costs for the local authorities managing the refund.

It must be noted that there is no guarantee for the introduction of a VAT refund to actually increase the percentage of contracting out. This will be the case, if other barriers to contracting out exist in addition to the barrier of differential VAT.

The differences of the refund systems currently in operation create inequalities amongst the Member States, particularly affecting private companies who offer their services to public bodies of different Member States.⁶⁹ Furthermore, the introduction of a refund scheme is especially difficult in Member States with a federal system, raising fundamental questions concerning fiscal al-

⁶⁹ See R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', Intertax 37 No 3, on page 162.

location as opposed to Member States with a central government.⁷⁰ This will also apply to all Member States where the VAT revenues have to be shared and where public funding is split up between different governmental bodies. In these cases a compensation system for public bodies could have the effect of an additional fiscal allocation to the benefitting public bodies not provided for in the regulations governing the Member State's financial allocations. As a consequence, the introduction of a compensation system would require an adjustment of these regulations which in some Member States, such as in Germany, form part of the constitution.

Another problem concerns the fact that most of the existing refund systems do not compensate foreign VAT.⁷¹ Although this measure is understandable in respect of a refund system's funding, it creates further inequalities contradicting the principle of VAT neutrality.

2.2.8. Zero Rates

As highlighted above, zero taxation has the effect of a tax-exemption without losing the ability to deduct input VAT. In this respect, applied exemption, instead of an ordinary exemption, it counteracts the bias towards self-supply, the disincentive to investment and tax cascading within the VAT System. However, as has been noted, it is only reserved for some Member States which are using stand still clauses. Furthermore, zero taxation is only an option where public bodies are taxable, thus ineffective as regards non-taxable activities of public bodies. Finally, zero rates lead to under-taxation of private (final) consumption.

2.3. VAT TREATMENT OF POSTAL SERVICE

There are postal services which are liable to tax, and others which are tax exempt. Pursuant to Article 132 (1) (a) of the VAT Directive the supply by the public postal services of services other than passenger transport and telecommunication services, and the supply of goods incidental thereto shall be treated as tax exempt.

According to the judgement of the Court of Justice of the European Union (ECJ) of 23 April 2009, C-357/07 – TNT – the concept of 'public postal services' in Article 132 (1)(a) of the VAT Directive must be interpreted to cover operators, whether they are public or private, who undertake to provide, in a Member State, all or part of the universal postal service, as defined in Article 3 of Directive 97/67/EC (the Postal Directive). The exemption applies to the supply by public postal services acting as such, that is, in their capacity as an operator, who undertakes to provide all or part of the universal postal service in a Member State. It does not apply to supplies of services or goods incidental thereto, for which the terms have been individually negotiated.

⁷⁰ See, KPMG (2005) 'Summary Final Report on the Expert Opinion "PPP in Public Construction Projects – VAT Refund System" for the Federal Ministry of Transportation, Construction, and Housing', URL: <http://www.bmvbs.de> (last checked: 11 January 2011), on page 14.

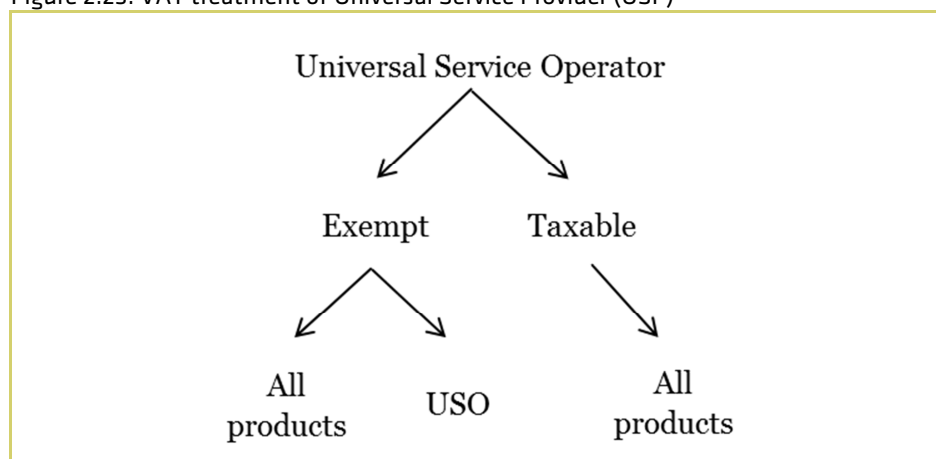
⁷¹ An exception is the Dutch system where also non-national costs are refunded.

According to the guidelines adopted by the VAT committee (VATCOM) in relation to the TNT judgment (almost unanimous agreement at the 90th meeting of the VATCOM on 11 December 2009) the exemption provided for in Article 132(1)(a) of the VAT Directive shall not apply to activities carried out by a universal service provider, which are dissociable from the service of public interest, including services which meet the special needs of the customer or customers concerned as such supplies are not provided in the public interest. In any case, the supply of postal services by a universal service provider, for which the terms have been individually negotiated, is regarded as meeting the special needs of the customer or customers concerned and shall therefore be excluded from the scope of the exemption provided for in Article 132(1)(a) of the VAT Directive.

As confirmed by the VATCOM guideline, a universal service provider providing a service which 'meets the special needs of the customers' shall not be exempted for the specific service even if terms have not been individually negotiated. The criterion 'individually negotiated terms' is regarded simply as an example of a situation where the exemption shall not apply.

Generally, private non-universal service providers in the EU are considered as taxable while universal service providers, irrespective of private or public ownership, will have VAT treatment that varies across activities and countries (inter alia due to different interpretations of the tax exemption or/and the different scope of universal services across the Member States). An activity by universal service providers can be regarded as VAT exempt or non-taxable in one country, while taxable in another. The VAT treatment of universal service providers can be divided into two categories cf. Figure 2.25. In the first category, all activities (products) are treated as taxable; this is currently the case in Sweden where a tax exemption on postal services has not been implemented into national law at all. In the second category, exemption is granted to the specific Universal Service Provider's (USP's) activities, which are different across countries. In the third category, all activities or products are exempt from VAT.

Figure 2.25: VAT treatment of Universal Service Provider (USP)



Note: The USO scope differs between the countries.

Source: Own exposition.

Table 2.3 shows how the EU countries fall into three categories.

Table 2.3: VAT treatment of Universal service provider in the EU

VAT Treatment	Countries
VAT on all products	Sweden
VAT exemption on USO (note that the USO scope differs between the countries)	Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Portugal, Slovakia, Spain, UK
VAT exemption on all products	Malta*

Note: *See next table.

Source: Copenhagen Economics (2010); Main development in postal sector, with updates.

In the EU, the VAT exemption rule on the scope of USO varies from country to country and from activities to activities, The summary of VAT treatment of postal sector in the EU is given in Table 2.4.

Table 2.4: Summary of VAT treatment of postal sector in the EU

Country	VAT treatment of postal services	VAT exempt services	VAT rate
Austria*	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters, Bulk parcels	0%
Austria*	The rest postal services, taxable	-	20%
Belgium	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters, Bulk parcels	0%
Belgium	The rest postal services, taxable	-	21%
Bulgaria	VAT exemption on USO	Basic letter post, non-priority letters, basic parcel post	0%
Bulgaria	The rest postal services, taxable	-	20%
Cyprus	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals	0%
Cyprus	The rest postal services, taxable	-	15%
Czech Republic	VAT exemption on USO	Basic letter post, Basic parcel post	0%
Czech Republic	The rest postal services, taxable	-	20%
Denmark	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Non-priority letters	0%
Denmark	The rest postal services, taxable	-	25%
Estonia	VAT exemption on USO	Basic letter pos, Basic parcel post, Non-priority letters	0%
Estonia	The rest postal services, taxable	-	20%
Finland	VAT exemption on USO	Basic letter post, Basic parcel post, Non-priority letters	0%
Finland	The rest postal services, taxable	-	23%
France	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters	0%
France	The rest postal services, taxable	-	19.6%
Germany	VAT exemption on USO	Basic letter post, Basic parcel post, Periodicals	0%
Germany	The rest postal services, taxable	-	19%
Greece	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters, Bulk parcels	0%
Greece	The rest postal services, taxable	-	23%
Hungary	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters, Bulk parcels	0%
Hungary	The rest postal services, taxable	-	27%
Ireland	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail	0%
Ireland	The rest postal services, taxable	-	23%
Italy	VAT exemption on USO	Basic letter post, Basic parcel post	0%
Italy	The rest postal services, taxable	-	21%

Country	VAT treatment of postal services	VAT exempt services	VAT rate
Latvia	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters	0%
Latvia	The rest postal services, taxable	-	22%
Lithuania	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Non-priority letters, Bulk parcels	21%
Luxembourg	VAT exemption on USO	Service covered by USO	0%
Luxembourg	The rest postal services, taxable	-	
Malta**	VAT exemption on all products	All products	0%
Netherlands	VAT exemption on USO	Basic letter post, Basic parcel post	0%
Netherlands	The rest postal services, taxable	-	19%
Poland	VAT exemption on USO	All products delivered by USP	0%
Poland	The rest of postal services, taxable	-	23%
Portugal	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Periodicals, Non-priority letters	0%
Portugal	The rest postal services, taxable	-	23%
Romania	VAT exemption on USO	Basic letter post, bulk letters, direct mail, periodicals, non-priority letters, basic parcel post	0%
Romania	The rest postal services, taxable	-	24%
Slovakia	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail, Non-priority letters, Bulk parcels	0%
Slovakia	The rest postal services, taxable	-	20%
Slovenia	VAT exemption on USO		0%
Slovenia	VAT on all products	None	20%
Spain	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters	0%
Spain	The rest postal services, taxable	-	18%
Sweden	VAT on all products	None	25%
UK	VAT exemption on USO	Basic letter post, Basic parcel post, Bulk letters, Direct mail***, Non-priority letters	0%
UK	The rest postal services, taxable	-	20%

Note: *AT: according to § 3 Z 6 PMG distribution centres are not considered as access points, so all postal items that are consigned at distribution centres will be outside of universal service according to § 6 PMG. This may create potential problems with the definition of services within the universal service area. **: According to the information we have accessed, Malta continues to vat exempt all products within postal services ***UK: Direct Mail is not a service ensured as universal service by law but the products used are part of the USO (bulk mail).

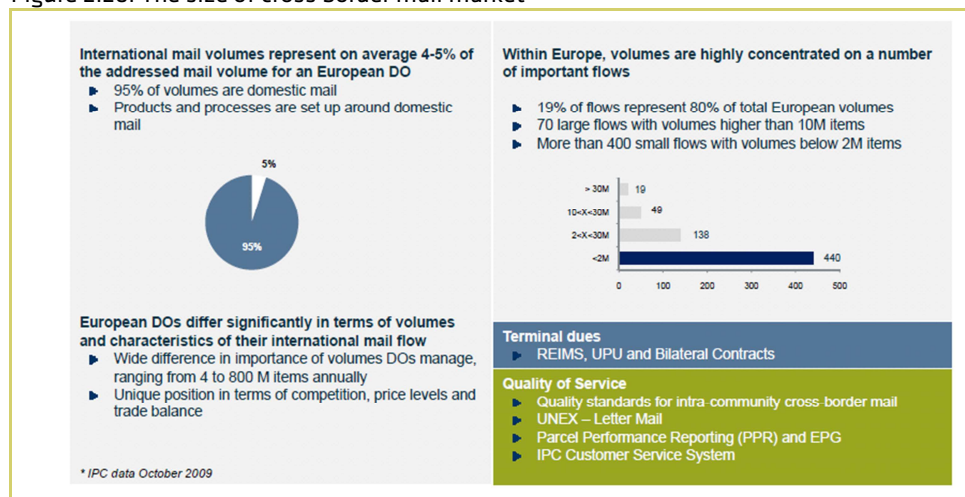
Source: Copenhagen Economics (2010), *Main developments in the postal sector 2008-2010*, TMF Group International VAT services, EU VAT rates 2011, <http://www.tmf-vat.com/vat/eu-vat-rates.html>.

2.3.1. VAT and cross border postal market

Cross-border mail has on average a market share of about 4-5 per cent of total mail in Europe, cf. Figure 2.26.⁷² The total cross-border mail market (outbound) was estimated at € 7.24 billion in 2009 globally, or at € 3.79 billion in Western Europe.⁷³

The cross-border mail market in the EU is highly concentrated with 19 per cent of the mail flow representing 80 per cent of the cross-border volumes cf. Figure 2.26.

Figure 2.26: The size of cross border mail market



Source: Based on Schoorl, p (2010): *VAT in cross border postal market*, CRNI conference presentation.

In the case of cross border postal market within the EU, the VAT treatment is different from that of the domestic postal market. Whether the cross-border service is exempt depends on whether the service in the sending country is exempt or not. For example, a bulk mail is VAT exempt in Belgium in contrast to the Netherlands, where bulk mail is out of the scope of USO and hence liable to VAT. If a firm would like to send a bulk mail from the Netherlands to Belgium, it will be liable to pay VAT as the VAT exemption rule of the Netherlands applies even if domestic bulk mail is legally exempt in Belgium. The reverse will happen if a firm sends a bulk mail from Belgium to the Netherlands. This consequently creates differential VAT treatment of the same service, when the sending country has different VAT exemption rules compared to the des-

⁷² Cross-border or international mail defined as letters of correspondence, printed matter, direct mail, small packets.

⁷³ Adrenale (2010) and DHL (2010) http://www.dhl.com/en/media_relations/media_library/graphics/crossborder_mail_market.print.html

mination country. Moreover, it is more likely that the practices of centralised printing and non-physical mailing solution will be encouraged as a result of differential VAT treatment in the cross-border postal market.⁷⁴ If we consider the same example given above, a firm who wants to send a mail from Netherlands to Belgium would prefer sending it by email and printed inside Belgium, to avoid any sort of VAT payment on the service.

2.4. COMPARISON WITH OECD COUNTRIES WITH A GST SYSTEM

In the literature, the EU VAT system is often compared with the 'modern' GST systems in Australia and New Zealand. From a public sector perspective, a comparison with the Canadian system and its special rebate rule may be of interest as well. The New Zealand system could be characterised as the most radical one. The Australian system is very close to the New Zealand system, whereas the Canadian system is similar to the EU VAT system practised in Member States with a refund or compensation mechanism.

2.4.1. Canada

General rules

The GST is levied on all supplies and importation of goods and services by taxable persons. The GST rate currently is 5 per cent. In addition, various provinces are imposing a provincial sales tax with different tax rates. In several provinces the provincial sales tax and the GST have been legally harmonized (so-called HST which consists of a federal and a provincial part). In some other provinces there are still more or less independent sales taxes (i.e. in Quebec the QST). The GST is calculated according to the consideration that the GST, provincial retail or land transfer taxes are not included.

The GST paid for acquiring goods and services which are used for a taxable supply is credited. In certain cases the right to claim an input tax credit is restricted:

- Supply of a membership in a club where the main purpose is to provide dining, recreational or sporting facilities
- Supply of a passenger vehicle to the extent the consideration exceeds CAD 30,000
- Meal and entertainment expenses (50 per cent input credit)

The legal concept of a taxable person is broad, although there is also a registration threshold for small businesses. It is possible to form a GST group with several taxable persons.

A taxable supply is a supply of goods or services that is made by a taxable person within the course of business for a consideration and has a connection with Canada.

⁷⁴ Schoorl, P (2010); VAT in cross border postal market, CRNI conference presentation.

A supply is not taxable if it is zero-rated or exempt:

- Zero-rated means that no GST is levied on the supply, whereas the taxable person is still entitled to claim an input GST credit
- Exempt means that no GST is levied on a supply and there is no input GST credit (this is comparable with the VAT exemptions under European VAT law).

Zero-rated are for instance the following supplies:

- Exported goods
- Exported financial services
- Most international transportation services
- Basic groceries
- Certain agricultural or fishing products
- Certain prescription drugs and medical services
- Supplies to provincial governments or their agencies

It is obvious that some of these zero-rate supplies are similar to the VAT exemptions stipulated in EU VAT law. The difference is that the deduction of input GST is always possible.

Exempt are, for instance the following supplies:

- Domestic financial services
- Residential rent
- Sales of residential premises
- Most health and dental services
- Child care
- Most educational services
- Most supplies by registered charities, municipalities, governments and other public sector bodies, except for supplies in competition with the private sector
- Legal aid (provided under financial assistance programmes)
- Bridge, road and ferry tolls

These exemptions are very similar to the exemptions in the EU VAT system, i.e. they do not allow the deduction of input GST – if no rebate is possible, cf. Table 2.5.

Public bodies

The registration threshold for public service bodies is CAD 50,000 (approx. € 37,500). A voluntarily registration is possible. Non-registrants do neither charge GST, nor are they entitled to claim input GST.

Purchases of the federal government are subject to GST. The provinces are relieved from paying GST on their input supplies, except for several provinces and territories that have agreed to pay

GST on their supplies. The suppliers to the relieved provinces do not charge GST but are entitled to claim input tax credit.

One of the main concepts of GST in the public sector is the concept of municipal services and municipalities. The Canadian GST system has a broad understanding of the term municipality which consists of the cities, counties, villages, as well as of their para-municipal organisations like health boards. The tax status of a municipality is also available for private organisations that are related to the territory of a municipality, i.e. volunteer fire organisations, private-run (unbottled) water suppliers, water distribution, sewerage or drainage systems or Indian bands and councils. The stipulations are quite complex. The status as a municipality has to be acknowledged by Canada Revenue Agency.

Many activities of municipalities are exempt, e.g.

- Library services
- Registrations/licences
- Law enforcement
- Fire protection
- Residential services like sewerage services, if provided on a non-optional basis
- Waste disposal, if supplied by a municipality
- Water distribution, sewerage, or drainage systems, if supplied by a municipality
- Municipal transit services
- Other municipal services (like maintaining of streets, removing snow, ice and vegetation)
- Certain intra-municipal services
- Certain recreational programs, amateur performances and events as well as admission to places of amusement (e.g. theatres)
- Supplies of food, beverages or short-term accommodation to people in need
- Homemaker services (cleaning, meal preparation, care) of municipalities to individuals that require assistance due to age or infirmity or disability
- Charitable events by a public institution

As far as public bodies render taxable supplies they are entitled to receive an input tax credit. Insofar as they are rendering exempt services the input tax credit is not possible. However, in these cases it is possible to claim a rebate of input GST according to the rebate scheme for public service bodies (cf. below).

Charities and Non-profit organisations

Charities have to register for GST purposes when they are rendering taxable services and are exceeding the thresholds for small businesses. If registered Charities have to pay GST on their taxable supplies and are entitled for claiming input tax credits. A charity is a registered charity or registered Canadian amateur athletic association for income tax purposes.

The input tax credit is limited according to the so-called net tax calculation, which is a special calculation method for charities. Under this scheme only 60 per cent of the GST due has to be paid. On the contrary, input tax credit is only possible for certain items. Charities can elect not to use the net tax calculation under certain provisions. Under the net tax calculation it is possible to get an additional rebate according to the rebate system. The rebate system is also accessible for all charities that are not registered.

The following exemptions are available for charities:

- Most services
- Supplies of donated or used goods
- Short term residential rental accommodation
- Meal on wheel programs
- Parking space and facility rentals
- Catering services for private functions
- Property and services sold in fundraising activities (under certain provisions)
- Fundraising events
- Direct cost exemption (supply of goods and services for an amount that is not more than the direct cost)
- Certain gambling events (lottery, bingo)
- Recreational programs for children of 14 or under
- Free supplies (if 90% of supplies are for free, no supply is taxed)
- Memberships (except for certain exceptions)
- Admissions to places of amusement (e.g. theatres)
- Supplies for the relief of poverty, suffering, or distress

The GST does not apply to donations or gifts (voluntarily transfer of money or property). The same applies to grants and subsidies. Even certain sponsoring activities are not liable to GST.

There are special regulations for real property and the purchase of printed books.

Similar rules apply to non-profit organisations (NPO). NPO or prescribed government organisations need to have a 40 per cent government funding to qualify as a NPO for GST purposes. The percentage is calculated without any remuneration for supplies to the government.

Rebate system for public service bodies

Through the rebate system it is possible to claim input GST that would be irrecoverable under the general GST rules. The rebate system is available for public service bodies (charities, NPO, certain government bodies), regardless whether they are registered for GST purposes or not. Insofar it is similar to the compensation mechanism in certain EU Member States.

It has to be noted that a rebate is also available for the provincial part of the HST or some provincial sales taxes.

Certain purchases and expenses are not eligible for the rebate (e.g. memberships in dining, recreational or sporting clubs, tobacco products, and some real estate-related costs).

The rebate is limited to a percentage of the input GST incurred, cf. Table 2.5.

Table 2.5: Rebates

Public Service Body Type	Rebate factor for GST / federal part of GST
Municipality	100%
University	67%
School Authority	68%
Public College	67%
Hospital Authority	83%
Facility Operator	83%
External Supplier	83%
Charity	50%
Qualifying NPO	50%

Source: KPMG

The rebates are funded out of general government revenues. Further, the percentage concerning the provincial part of HST or provincial sales taxes varies between 0 per cent and 93 per cent.

Evaluation

The Canadian GST system for public bodies and charities has many similarities with the EU VAT law and recently has been considered to be worthy for consideration in the EU as a practical compromise between the current system and a full taxation of the public sector.⁷⁵

In the Canadian GST the public bodies' activities are not subject to GST in many cases. As a consequence they cannot claim input tax credits. However, like in those EU countries which have introduced a refund system, an input tax credit is in practice possible through a compensation system, which derives from the basic rule that an input tax credit is only possible for costs incurred by taxable supplies.

⁷⁵ P. Gendron (2010), 'VAT Treatment of Public Sector Bodies: The Canadian Model', URL: <http://www.sbs.ox.ac.uk> (last checked: 11 January 2011).

The Canadian system with its zero-rate supplies fails to tax the private consumption of the outputs of the public sector. It is still necessary to have complex rules to define exempt (or zero-rated) supplies and suppliers. Public and private sector are treated differently.⁷⁶

The rebate is a measure to minimize the self-supply bias, reluctance to invest and tax cascading. However, the rebate rates vary by the type of supplier, the place where the supplies are made and by the type of services. This results in a non-neutral treatment of similar supplies.⁷⁷ As a result there is no neutrality concerning entities or activities that are not eligible for a rebate.

It has to be noted that the net calculation scheme for charities is a concept, which seems to be an efficient simplification. It allows charities to limit their compliance costs concerning the refund of input taxes.⁷⁸

2.4.2 Australia

General rules

Australia introduced the Goods and Services Tax (GST) in 2000. The GST is levied on all supplies and importation of goods and services by taxable persons. The GST rate currently is 10 per cent. The GST is included in the price (1/11 of sale price).

A taxable supply is a supply that is made by a registered person within the course of an enterprise for a consideration and has a connection with Australia. The GST paid for acquiring goods and services which are used for a taxable supply is credited.

Taxable persons are registered for GST purposes or are obliged to register. The registration threshold is annual taxable supplies (past or projected) of AUD 75,000 (approx. EUR 52,500).

A supply is not taxable if it is GST-free or input taxed:

- The expression GST-free means that no GST is levied on the supply, whereas the taxable person is still entitled to get an input GST credit (this mechanism could also be called zero rated)
- The expression 'input taxed' means that no GST is levied on a supply and there is no input GST credit (this is comparable with the VAT exemptions under European VAT law).

⁷⁶ P. Gendron (2009), 'How should the U.S. treat government entities, non-profit organisations and other tax-exempt bodies under a VAT?', URL: www.americantaxpolicyinstitute.org/research.html (last checked: 11. January 2011).

⁷⁷ P. Gendron (2009), 'How should the U.S. treat government entities, non-profit organisations and other tax-exempt bodies under a VAT?', URL: www.americantaxpolicyinstitute.org/research.html (last checked: 11. January 2011).

⁷⁸ P. Gendron (2009), 'How should the U.S. treat government entities, non-profit organisations and other tax-exempt bodies under a VAT?', URL: www.americantaxpolicyinstitute.org/research.html (last checked: 11. January 2011).

GST-free (zero-rated) are, for instance the following supplies:

- Transfer of going-concern/businesses
- Exports and other supplies for consumption outside of Australia
- International mail
- Food
- Water and sewage
- Medical and health services (incl. medical aids, appliances and medicines)
- Goods that have a proven health benefit
- First aid and lifesaving course
- Complementary medical services, i.e. acupuncture, herbalism, naturopathy (for a 3 year period)
- Cars for use by disabled people
- Child care
- Education
- Adult education and training which is likely to develop employment-related skills
- Religious services
- Non-commercial activities of charitable institutions

It is obvious that some these exemptions are similar to those stipulated in EU VAT law. The difference is that the deduction of GST is possible.

Input taxed (tax-exempt) are for instance the following supplies:

- Financial services
- Residential rent
- Sales of residential premises

These exemptions are very similar to the exemptions in the EU VAT system, i.e. they do not allow the deduction of input GST.

Public bodies

According to Section 149 Australian VAT Act public bodies are eligible to register for GST purposes even if they are not an entity or an enterprise (the stipulations about registering of public bodies or parts thereof are quite complex). Thus, the Australian government imposes a tax to itself – at least on a notional base (Section 177 Australian VAT Act). Public bodies may choose not to register even if they exceed the threshold of AUD 75,000 (approx. € 52,500). If registered, the same rules apply like for other taxable persons.

Where the government makes a supply of services and the receiving party has no obligation to do anything in return or provides any monetary consideration, in this case that supply does not attract any GST. Thus, if the government makes any supplies for no consideration, for example,

provision of social welfare benefits or subsidies, such supplies would have no GST consequences. From the government perspective, such “supplies” or transactions would not be reported in the government’s GST return.

The parliamentary budget is relevant to determine whether a grant from one government department to the other is an appropriation for GST purposes. An appropriation generally is not subject to GST. If the grant for some reasons does not satisfy the requirements for being an appropriation, potentially the receiving government (the grantee) may need to remit GST on the grant and the other government department (the grantor) may be entitled to claim a GST credit.

However, if the government renders services for ‘consideration’, the tax base is the value of that consideration (if a monetary consideration) or the market value of that consideration (if the consideration is in a non-monetary form). If the market value of the non-monetary consideration cannot be ascertained, the GST is taxed based on the market value of the services rendered by the government (i.e. market value means which party, on the arm’s length basis, would be willing to pay for the same services provided by a third party).

Non-profit organisations

Generally non-profit organisations (NPO) are treated like taxable persons but several special rules are applicable. This concerns the registration threshold and treatment of certain supplies as ‘GST-free’ (or zero-rated) and ‘input-taxed’ (or tax-exempt).

The NPO must only register if their turnovers exceed AUD 150,000 (€ 105,000). The threshold is higher than for other entities (AUD 75,000). The NPO may choose to register if their turnovers are below that sum. Such a decision is binding for 12 months. If a NPO is not registered, GST is not included in the sale price. On the contrary, the GST paid for services to render a service is not deductible. If a NPO is registered, 10 per cent GST is due on (almost) all sales. The NPO can claim a credit for GST paid to buy services and goods in carrying on activities. The possibility to register voluntarily, allows the NPO to decide whether the administration costs of GST are higher than a benefit from input GST.

Grants (from the government or foundations) attract GST if a supply is carried on in return for the funding. The same is applicable to sponsorships received for advertising, naming rights or other benefits. A gift is not a consideration – no GST applies. Gifts are not calculated in the annual turnover for the registration threshold. A gift has to be made voluntarily, i.e. the payer does not receive a material benefit (no contractual obligation to pay is allowed). A material benefit could be tickets, dinners, items for use. No material benefit are insubstantial values (like ribbons, pins etc.).

If a NPO is GST-registered, it has access to general concessions:

- School tuck shops are shops operated on grounds of a primary or secondary schools. They can elect for input taxed supplies (no taxation of sales and no deduction of input GST).
- For a NPO it is easier to form GST groups.

Special concessions are available for certain kinds of NPO like 'charities', 'gift deductible entities' and 'government schools' (these kinds of institutions are defined in Australian tax law):

- Raffles and bingo events are GST-free (deduction of input GST possible).
- Sales in connection with fundraising events can be treated as input taxed (no deduction of input GST).
- If consideration for sales are below a certain value, sales are GST-free (non-commercial activities). The amount charged has to be less than 50 per cent of the GST-inclusive market value or less than 75 per cent as the amount paid to acquire the goods sold (if accommodation services: less than 75 per cent of the GST-inclusive market value or less than 75 per cent of costs).
- Reimbursement of volunteer expenses (input GST is granted on expenses paid to volunteers). The deduction input GST requires a tax invoice to the volunteer.
- Sales of donated second hand goods are GST-free – if there is no change in the original character of the goods.
- Transactions between members of a religious group are GST-free.
- Services of retirement villages are GST-free, but not as far as services to visitors or employees concerned (unless these services are non-commercial).
- Sub-entities. Identifiable branches of NPO which are registered separately. This special scheme requires a separate organisation and accounting of the sub-entity (used for fundraising dinner, fetes etc.). A sub-entity is not possible when the activities are relating to the main purpose of the NPO (e.g. membership activities).
- Accounting on cash basis is possible regardless of the annual turnover (instead of the non-cash – or accruals – method which is the general rule).
- No adjustment of GST credits if an item is donated (usually GST credit has to be paid back by taxable persons if an item is not used for business activities).

Evaluation

The Australian system has different approaches to the taxation of public bodies, non-profit organisations (NPO) and certain services in the public interest.

Public bodies

The basic concept of a full taxation of supplies by public bodies is considered as superior to the EU VAT system in the tax literature.⁷⁹ The full taxation removes all distortions of competition which occur with the EU VAT system, because public bodies and private entities are taxed equally. There is no self-supply bias or reluctance to invest either, as public bodies are entitled to deduct input GST. Finally, consumers of public services do not have to bear cascaded GST.⁸⁰ There is also a real simplification of GST administration and compliance (no definition of public bodies, their public activities or definitions of tax exemptions). A full taxation levies the GST at the level of final consumers, and not at the level of governments, which are not final consumers of services from a scientific point of view.

However, it has to be noted that even in Australia government activities without remuneration (e.g. fire protection, law enforcement) are outside of scope of GST. As a consequence, input GST is not credited. This means that the known problems of EU VAT law, like the self-supply bias, reluctance to invest, cascading, are only partially solved.

From a financial point of view revenues would rise through a taxation of cases where a consideration is paid. They would drop due to input GST refunds. The more public bodies outsource their activities, the more input GST deduction is possible. If, in contrast, outsourcing could be used for lowering the prices of public services, this also means that there will be less GST revenues for output supplies.

Public bodies would have the advantage to get a refund of GST. Disadvantages would occur for the recipients of public services (i.e. merit goods) which are not entitled to deduct any GST. The public services will not be more expensive as long as the advantages deriving from the input GST deduction could be used for achieving lower costs and, thus, lower prices for public services. The refund of input GST is not a real expenditure as long as the same governmental level is considered. Economic effects concerning other government levels may follow. This will work easier in systems with only a few government levels and will be more complicated in systems with lots of

⁷⁹ M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149; R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', Intertax 37 No 3, on page 148; P. Gendron (2009) 'Treatment of Public Service Bodies under Canada's VATs: The Rebate Model', presentation at Fiscalis Seminar on The VAT Treatment of Bodies Governed by Public Law and of Subsidies: Issues and Prospects, November 2009 in Florence.

⁸⁰ M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149; P. Gendron (2009) 'Treatment of Public Service Bodies under Canada's VATs: The Rebate Model', presentation at Fiscalis Seminar on The VAT Treatment of Bodies Governed by Public Law and of Subsidies: Issues and Prospects, November 2009 in Florence.

government levels. From a mere scientific point of view it could be remarked that distributional goals could be fulfilled by using expenditure policies and income tax systems.⁸¹

Another difficulty derives from the complex legal concept of imposing a tax to the State itself. It has to be defined which of the activities can be qualifying as a taxable supply. Especially intra-state financial transactions are not necessarily remuneration for a service. This is for instance discussed in connection with appropriations of funds.⁸²

Non-profit organisations (NPO)

Generally NPO are taxed like other private entities. Nevertheless, they have access to some special concessions.

It has to be noted that the use of exemptions ('input-taxed' and 'GST-free' supplies) is basically not sector-related but activity-related.

Some of the NPO services are treated (like in the EU) as tax-exempt ('input taxed'). This causes the same problems as in the EU (self-supply bias, reluctance to invest and cascading). However, it has to be considered that only very few turnovers are affected (school tuck shops and fundraising events) and thus, the economic effects could be considered as minor.

There are several supplies that are treated as zero-rated (GST-free), such as non-commercial activities, raffles and bingo, sales of donated second hand goods and services between religious groups. As the deduction of input GST is possible, there will be no disadvantages like self-supply bias, reluctance to invest or tax cascading. However, distortions of competition might still exist as taxable persons and NPO are not treated the same way. Considering the list of GST-free services of NPO the distortions will not be enormous.

The system for NPO seems to be more complex than the system for public bodies. However, there seems to be a simplification because the concessions are dependent on an acknowledgement of certain categories of NPO (endorsement by tax office). The EU VAT law foresees lots of different requirements for the different exemptions in Art. 132 of the VAT Directive.

Services in the public interest

There are several services in the public interest that are GST-free, i.e. in the health care and educational sector or water supply and sewage. As the deduction of input GST is possible, there will

⁸¹ Aujean/ M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149; P. Gendron (2009) 'Treatment of Public Service Bodies under Canada's VATs: The Rebate Model', presentation at Fiscalis Seminar on The VAT Treatment of Bodies Governed by Public Law and of Subsidies: Issues and Prospects, November 2009 in Florence.

⁸² Pyanic/Fife (2009), 'GST treatment of appropriations', Australian GST Journal, page 105.

be no disadvantages, such as self-supply bias, reluctance to invest or tax cascading. A distortion of competition is not an issue, because the exemption is for all suppliers (public bodies, NPO or private sector).

2.4.3 New Zealand

General rules

The GST was introduced in New Zealand in 1985. It is levied on all supplies and importation of goods and services by taxable persons. Since October 2010, GST rates are now 15 per cent, instead of 12.5 per cent used earlier. The GST is calculated on the value of a supply (the GST exclusive price) and, paid for acquiring goods and services which are used for a taxable supply, is credited.

Taxable persons are registered for GST purposes or are obliged to register. The registration threshold is annual taxable supplies (past or projected) of NZD 60,000 (approx. € 33,000).

A taxable supply is a supply that is subject to GST and is made by a registered person in the course of carrying on an activity which involves or is intended to involve the supply of goods and services for a consideration (Sec. 5(2) GST Act).

A supply is not subject to GST at 12.5 per cent if it is zero-rated or exempt:

- Zero-rated means that 0 per cent GST is levied on the supply, whereas the supplier is still entitled to get an input GST credit
- Exempt means that no GST is levied on a supply and there is no input GST credit (this is comparable with the VAT exemptions under European VAT law).

Compared with other VAT/GST systems the New Zealand GST comes closest to a full taxation as there are only a few exemptions or zero-rated supplies.

Zero-rated are for instance the following supplies:

- Transfer of going-concern/businesses
- Exports and other supplies for consumption outside of New Zealand
- Financial services supplied to non-residents or to residents from New Zealand who are GST registered and make at least 75 per cent taxable supplies

It is obvious that some of these zero-rated supplies are similar to the VAT exemptions stipulated in EU VAT law. The difference is that the deduction of GST is possible.

Exempt are, for instance the following supplies:

- Financial services that cannot be zero-rated

- Residential rent
- Sales of residential premises
- Supplies by a non-profit body of donated goods and services

These exemptions are very similar to the exemptions in the EU VAT system, i.e. they do not allow the deduction of input GST.

Public bodies

In general public bodies are obliged to register for GST purposes. Their supplies are taxable if they are not exempt. The assessment base for the sales is typically calculated on the basis of revenue received from the Crown (in the form of Government funding) or from the public (in the form of rates, levies, fees and other charges). Thus the government renders deemed supplies (Sec. 5(6) and (7) GST Act). Like in Australia, the state imposes a tax to itself. The GST Act contains a number of definitions for the assessment base of the deemed supplies.

Non-profit organisations

For GST purposes a non-profit body (NPO) is any society, association or organisation that is not carried on for the profit or gain of any member, and whose rule prevent the distribution of money or property to any of its members, proprietors or shareholders.

NPO must register if their turnover exceeds NZD 60,000 (approx. € 33,000). They may choose to register if their turnovers are below that sum.

Registered NPO charge GST on goods and services they supply, but are able to claim credits for the GST incurred in relation to goods and services acquired in making the supplies. Non-registered NPO do not charge GST and are not entitled to credits for the related GST they incur. To register, a NPO must be able to identify some good or service that is provided for a consideration (e.g., if they are wholly funded by donations, then they are unlikely to be able to register for GST purposes).

In New Zealand a gift or donation to a non-profit body will not be subject to GST in the hands of the non-profit body. The exception to this are cases in which the donation or gift is in respect of a supply of goods and services to the donor or someone associated with the donor. Like in other jurisdictions the differentiation depends on the question whether there is a link between the payment and any advantage received. This leads to the consequence that NPO that are registered and financed through donations can effectively only reach a 100 per cent zero-rate tax position.

The only exemption for NPO is that the supply of donated goods and services is exempt (Sec. 14 New Zealand VAT Act).

Evaluation

The New Zealand system comes closest to a full taxation. Only very few exemptions exist.

Public bodies

Like the Australian GST system, the New Zealand GST system is considered as superior to the EU VAT system in the tax literature.⁸³ Distortions of competition like self-supply bias or reluctance to invest are removed as public bodies are entitled to deduct input GST. In addition, business consumers of public services do not have to bear cascaded GST.⁸⁴ There also exists a real simplification of GST administration and compliance (no definition of public bodies, their public activities or definitions of tax-exemptions). A full taxation levies the GST at the level of final consumers, and not at the level of governments.

Unlike the Australian system, the New Zealand system comes very close to a full taxation because of the deemed supplies of public bodies.

The financial consequences are very similar to those in Australia so that we refer to our comment regarding Australia.

The greatest conceptual difficulty is the insistence on identifying explicit consideration before a supply is seen to be made (there is no explicit fee, no direct link between fee and benefit provided).⁸⁵ There are especially problems with public goods (fire protection, defence etc.) and some authors recommend a service for a consideration of nil with zero tax.⁸⁶

Non-profit bodies (NPO)

The non-profit bodies (NPO) are treated as taxable persons – if they have less than NZD 60,000 turnover which this is left to their discretion. Thus, a NPO financed only by donations can deduct input GST. As a consequence, there is no government share (through GST) concerning the

⁸³ M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149; R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', Intertax 37 No 3, on page 148; P. Gendron (2009) 'Treatment of Public Service Bodies under Canada's VATs: The Rebate Model', presentation at Fiscalis Seminar on The VAT Treatment of Bodies Governed by Public Law and of Subsidies: Issues and Prospects, November 2009 in Florence.

⁸⁴ M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149; P. Gendron (2009) 'Treatment of Public Service Bodies under Canada's VATs: The Rebate Model', presentation at Fiscalis Seminar on The VAT Treatment of Bodies Governed by Public Law and of Subsidies: Issues and Prospects, November 2009 in Florence.

⁸⁵ M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149; R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', Intertax 37 No 3, on page 148.

⁸⁶ P. Gendron (2009), 'How should the U.S. treat government entities, non-profit organisations and other tax-exempt bodies under a VAT?', URL: www.americantaxpolicyinstitute.org/research.html (11 January 2011).

donations and how they are used. The charities are relieved from the VAT burden they face within the EU.

There is only one exemption for NPO: The sale of donated goods. This effectively causes a distortion of competition because the sale of similar goods by other taxable persons is taxed. This should have minor economic effects as there are limitations on the extent of goods that are donated.

2.5. PROBLEMS WITH THE CURRENT TREATMENT OF PUBLIC SECTOR ACTIVITIES

As highlighted above, the legal provisions of the VAT Directive concerning the public sector and exemptions in the public interest are often unclear and leave considerable room for interpretation. Together with the considerable discretionary powers and multiple choices granted to Member States, as regards the adoption, this results in a high level of complexity and legal uncertainty. As a consequence, distortions of competition are possible. Furthermore, the current VAT system creates barriers for private competitors to enter into markets which are dominated by the public sector and thereby, has a negative effect on the efficiency in delivering public services. Finally, the VAT system affects the level and structure of investments and employment.

2.5.1. Distortions of competition

Although the provisions of the VAT Directive are designed to avoid significant distortions of competition resulting from a public body's treatment as non-taxable, due to a lack of proper transposition or a lack of proper application of the national law, distortions of competition may in some Member States still occur.⁸⁷ Where a Member State, for example, fails to properly transpose the provisions of the distortion clause of Article 13(1) paragraph 2 of the VAT Directive, the VAT treatment of public entities may still result in unfair competition mostly to the disadvantage of private competitors. This distortion of competition can even be increased where Member States operate refund schemes in order to compensate public bodies for non-deductible input VAT. Where the provisions of Article 13(1) paragraph 2 and 3 are, however properly transposed, unfair competition in regards to the VAT treatment of output is minimized. Nevertheless, Member States may use national market regulations to prohibit private competition.

However, not only in the case of non-taxable public activities are distortions of competition possible. They may also arise in connection with special exemptions for the public sector which, according to Article 132 of the VAT Directive, depend on the status of the supplier as a body governed by public law. If, for example, a private hospital does not provide for social conditions comparable with those applicable to bodies governed by public law, it will not benefit from the

⁸⁷ R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37 No 3, on page 151.

exemption of Article 132(1)(b) of the VAT Directive even if it offers the same services as a public hospital. In this respect, the exemption creates a distortion of competition to the disadvantage of the private hospital which must charge VAT as opposed to the public hospital, which is exempt because of its status as a body governed by public law. Similar distortions may arise where Member States chose to impose additional conditions for exemptions according to Article 133 of the VAT Directive.

Another distortion of competition results from the fact that the current VAT treatment of the public sector causes a bias towards self-supply. In this respect, the VAT system creates a disadvantage for private businesses specialised in contracting out of public services. The irrecoverable input VAT burden in the case of non-taxable or exempt public activities consequently leads to a distortion of competition in favour of in-house production.

2.5.2. Barriers to entry into existing markets

Given the possibility of VAT induced distortions of competitions, the current VAT system can also have the effect of creating a barrier for a private company to enter into existing markets which are dominated by public bodies. Since, unlike non-taxable public bodies, a private competitor would be within the scope of VAT, it would have to charge VAT on the price of its services and supplies. Where supplies are made to end-consumers who do not have the right to deduct input VAT, private supply would be more expensive as opposed to the public supply. As a consequence, a private competitor would in many cases not be able to compete with public competitors. However, it must be pointed out that a proper transposition and application of the distortion clause of Article 13(1) paragraph 2 of the VAT Directive should minimize this effect. Furthermore, the complexity of the VAT treatment along with the differences in the Member States and the legal uncertainties deters, in particular small and medium sized private competitors from attempting to enter into new markets, especially if confronted with the VAT treatment of the public sector in another Member State.

2.5.3. Level and structure of investment

As described above, the current VAT treatment of the public sector causes a bias towards self-supply and a disincentive to invest. This affects the level of investments wherever a public sector body intends to make an investment in non-taxable or exempt activities and if the received service or supply is taxable, so that the public sector body would be charged irrecoverable VAT. Because of the public sector body's inability to deduct input VAT, the VAT burden creates an additional cost for the investment and thereby becomes an obstacle to investment.⁸⁸ Given the budgetary restrictions of public bodies such as municipalities, in some cases the VAT burden may actually make the investments impossible.

⁸⁸ M. Aujean (2009), 'The treatment of Government entities, non-profit organisations and other exempt bodies under a VAT: a discussion paper', URL: <http://www.americantaxpolicyinstitute.org> (last checked: 11 January 2011), on page 3.

2.5.4. Level and structure of employment

Since the current VAT treatment encourages public bodies engaged in non-taxable or exempt activities to self-supply, these public bodies have an increased need for personnel for the actual self-supply instead of outsourcing. As a consequence, the current VAT treatment of the public sector has the effect to encourage a relatively high level of public employment.

2.5.5. Efficiency in delivering public services

In addition to the effects aforementioned, the bias towards self-supply and away from outsourcing has a negative impact on the efficiency of public services and supplies, since cooperation with the private sector, such as the contracting out of services is in many cases regarded to result in lower costs.⁸⁹ Even in case where exculpating of a public service would be more cost efficient than self-supply, the inability to deduct input VAT may lead to the public body choosing self-supply over the more cost efficient cooperation with the private sector. As a result, the public sector is unable to achieve the maximal efficiency gains.⁹⁰ In this regard, the current VAT treatment of the public sector also creates a disadvantage for Public Private Partnerships, which are generally regarded as a way of improving the efficiency of public service delivery.⁹¹

2.5.6. Impact on public revenues

The impact of the current VAT treatment of the public sector on public revenues depends on the kind of activity. On the one hand, the inability of public sector bodies to deduct input VAT incurred for their non-taxable or exempt activities creates revenue (although at overall public level the net impact is close to zero). On the other hand, the current system in this regard fails to tax the value added as regards the consuming of public non-taxable and exempt public supplies and services. As a result, actual revenue is only achieved in cases where the taxable input of a public body is higher than the non-taxable or exempt output. If, however, the amount of the output is higher, the current system in fact favours the public sector in regards to supplies and services to final consumers without the right to deduct input VAT.

2.5.7. Welfare costs

Assuming that in the welfare sector the amount of taxable input is usually higher than the consideration received, the current VAT treatment results in a disadvantage of public welfare bodies, since they carry the burden of irrecoverable input VAT. In this respect the inability to deduct in-

⁸⁹ Dijkgraaf & R.H.J.M. Gradus (2003), 'Cost Savings of Contracting Out Refuse Collection', *Empirica*, on page 161; M. C. Wassenaar & R. H. J. M. Gradus (2004), 'Contracting out: The Importance of a Solution for the VAT Distortion', *CESifo Economic Studies* 2: 377-396, on page 380.

⁹⁰ M. C. Wassenaar & R. H. J. M. Gradus (2004), 'Contracting out: The Importance of a Solution for the VAT Distortion', *CESifo Economic Studies* 2: 377-396, on page 377.

⁹¹ R. W. McQuaid and Walter Scherrer (2008), 'Public Private Partnership in the European Union: Experiences in the UK, Germany and Austria', URL: <http://www.fu.uni-lj.si/uprava/> (last checked: 11 January 2011), on page 27.

put VAT may, for example, prevent a charitable organisation from making necessary investments for their activities, such as buying buildings for social housing⁹². However, this is only true if the public body which provides the welfare services is not recipient and provider in one.

As highlighted above, the current VAT treatment prevents possible cost efficiency gains in the public sector through contracting out or other kinds of cooperation between the public and the private sector.

2.5.8. Prices to be paid by consumers

The effect of the current VAT treatment on the prices paid by consumers of public supplies and services also depends on the situation. Where the consumer pays for a non-taxable or exempt public service, he does not have to carry the VAT burden. Nevertheless, the price includes an amount of hidden VAT on the taxable input of the public body which could not be recovered. As a consequence, the current VAT system tends to increase the prices for public offerings where the amount of irrecoverable input VAT exceeds the amount of VAT, which is not charged because of the non-taxability of the supply. However, if the consideration for public supplies or services paid by the consumers exceeds the amount of the respective public body's non-taxable input, the non-taxability or exemption allows a lower price.

2.5.9. Complexity and tax compliance cost

The current VAT treatment of the public sector under the VAT Directive is complex and requires a relatively high level of compliance and administration costs.⁹³ As pointed out by Gale and Holtzblatt, complexity may even be defined as the sum of compliance costs - which are incurred directly by individuals and businesses—and administrative costs, which are incurred by the government.⁹⁴ The already high level of complexity provided by Articles 13 and 132 of the VAT Directive is further increased by the various exception rules for some Member States and provisions which may voluntarily be adopted. The possibility of multiple tax rates, for example, increases the complexity by raising question of classification if different rates apply to purchases and supplies.⁹⁵

⁹² C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, on page 434.

⁹³ See R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37 No 3, on page 148; M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', *VAT Monitor* 1999: 144-149, on page 145.

⁹⁴ See W.G. Gale & J. Holtzblatt (2002), 'The Role of Administrative Factors in Tax Reform: Simplicity, Compliance, and Administration', in *US Tax Reform in the 21st Century*, eds R. Zodrow & P. Mieszkowski (Cambridge: Cambridge University Press, 2002), 179-214, at chapter I. A.

⁹⁵ P. Gendron (2009), 'How should the U.S. treat government entities, non-profit organisations and other tax-exempt bodies under a VAT?', URL: www.americantaxpolicyinstitute.org/research.html (last checked: 11 January 2011), on page 9.

To amplify, complexity is caused by the legal uncertainty. Because of the unclear provisions and common occurring violations of the VAT Directive provisions in the national law regime, public bodies effectively cannot trust the national regulations but must always account for the possibility of different taxation according to the European provisions. It is evident that coping with this uncertainty usually requires considerable legal advice, causing high compliance costs. Additional costs and risks arise along with public body's attempts to construct fiscal schemes in order to avoid negative VAT effects.⁹⁶

It can be noted that the impacts on the efficiency in delivering public services and on the level and structure of investments and employment are consequences of the current VAT treatment of the public sector's inputs and lie within the VAT system of the VAT Directive itself. As a result, these problems cannot be solved by enforcing harmonisation, but require a change of the European VAT legislation. The approach of some Member States to introduce compensation mechanisms appears to be problematic. Alternative solutions and their effects will be discussed in chapter 5.

2.5.10. Conclusion

According to our assessment the major problems of the current VAT treatment are its complexity and legal uncertainty, as well as its distortive effects in relation to economic decisions of the public sector bodies and the competition with the private sector.

As regards the legal uncertainty of the system, it must be noted that it aggravates many of the aforementioned problems. A lack of certainty about the tax consequences of specific transactions for example causes inactivity as regards the undertaking of new investments or extending and adapting existing activities.⁹⁷ Furthermore, it additionally complicates entering into new markets for private competitors, creates compliance costs, as well as administration costs and encourages the use of complex structures or tax schemes which take advantage of the situation.⁹⁸

The distortions of the current system also have the effect of enforcing many of the highlighted negative impacts. The distortion of competition to the disadvantage of private competitors has the additional effect of depriving the consumers of public goods of the benefits of increased competition between public and private sector providers.⁹⁹ The distortion in connection with input choices by public bodies hinders public investments and efficiency gains of cooperation with the private sector. These effects cannot effectively be neutralised by the existing Art. 132 (1) f of the VAT Directive. Furthermore, it is difficult to assess the impact of public sector body's inability to deduct input VAT, since it depends on the relation between the amount of taxable input and non-taxable or exempt output of the respective body. As in the case of non-taxable or ex-

⁹⁶ H. van Dijk & G. Lubbers (2000), 'The VAT Compensation Fun(d)?', VAT Monitor, on page 7.

empt welfare activities, the VAT system can even lead to an effective tax burden for the consumption of public goods that directly contradicts social and distributional aims.¹⁰⁰

Therefore, the EU should seriously consider the possible policy options described in chapter 5.

⁹⁷ C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, at 435.

⁹⁸ C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, at 435.

⁹⁹ P. Gendron (2009), 'How should the U.S. treat government entities, non-profit organisations and other tax-exempt bodies under a VAT?', URL: www.americantaxpolicyinstitute.org/research.html (last checked: 11 January 2011), on page 7.

¹⁰⁰ R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37 No 3, on page 148.

Chapter 3 MODEL ASSUMPTIONS

3.1. GENERAL FEATURES OF THE MODEL

The Copenhagen Economics Vat Model (CEVM) is a global, multi-regional, multi-sectorial general equilibrium model, and is specially designed to study the economic effects of public production and VAT policies. The model captures all linkages between the different sectors of the economy and it therefore allows an economy-wide assessment of different VAT policies. Specifically, the model captures both, the direct effects on sectors targeted and the indirect effects on their suppliers, consumers and competitors. Therefore, the model is suitable for answering a question like how much the total cost of the distortionary effect of a VAT exemption on public production would be when taking all spill-over effects into account.

A basic principle of efficiency implies that a tax system should be as 'neutral' as possible in terms of economic choices, and that consumption and production decisions should not be driven by tax considerations. As a result, in a first-best world, similar goods and services should face equal levels of taxation, so that no distortions of competition will apply between market operators.

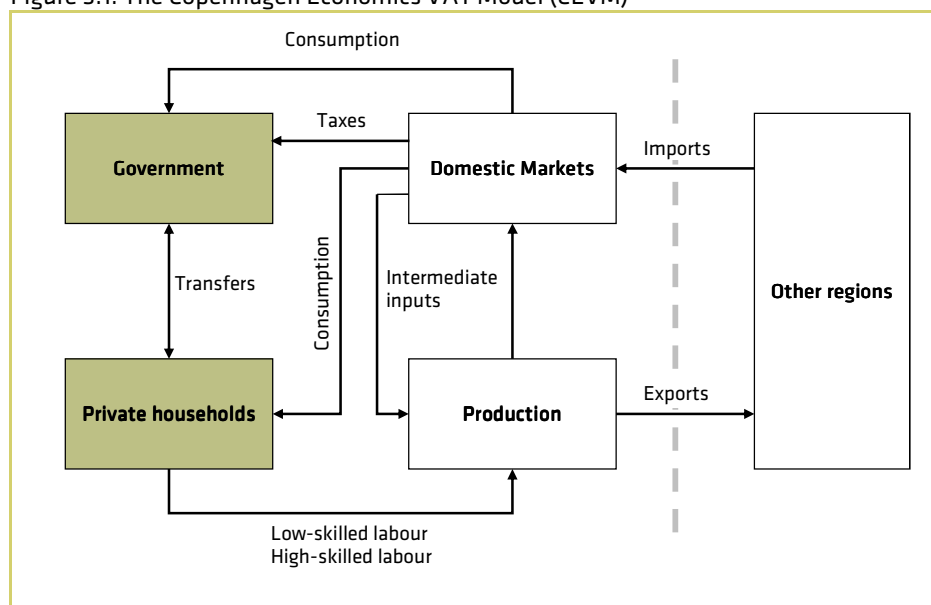
Since we propose a multi-regional model covering the whole EU, the model will capture spill-over effects between markets. Hence, we are able to assess the overall impact of different VAT policies, in particular, in terms of economic performance, job creation and competitiveness.

The CEVM has been used in numerous projects for the European Commission and national governments. However, the CEVM has been specifically adapted to the current analysis of public production and VAT policies.

3.1.1. Overview of CEVM

The main idea behind a Computable General Equilibrium Model (CGE), such as the CEVM, is to explain how goods and services are produced and consumed using empirical data. Firms produce goods and procure materials and labour in order to maximize profits. The main inputs to production are: materials (in its widest sense) and the primary factors capital and labour. The term 'materials' is meant to encompass physical materials, electricity, as well as support services. A representative agent decides on final demand, and he/she finances consumption with income from sales of capital and labour. Finally, a government provides public goods financed through taxes, including value added tax. The VAT is modelled as a value added tax in the CEVM. This means that final consumers, non-taxable and tax exempt bodies pay VAT. Taxable bodies can recover input VAT and do not bear a direct cost. There may be indirect costs, however, because VAT on consumers, non-taxable and exempt bodies change their demand when facing VAT. Figure 3.1 gives an overview of the markets, the agents and the flows of goods, services and factors in the model.

Figure 3.1: The Copenhagen Economics VAT Model (CEVM)



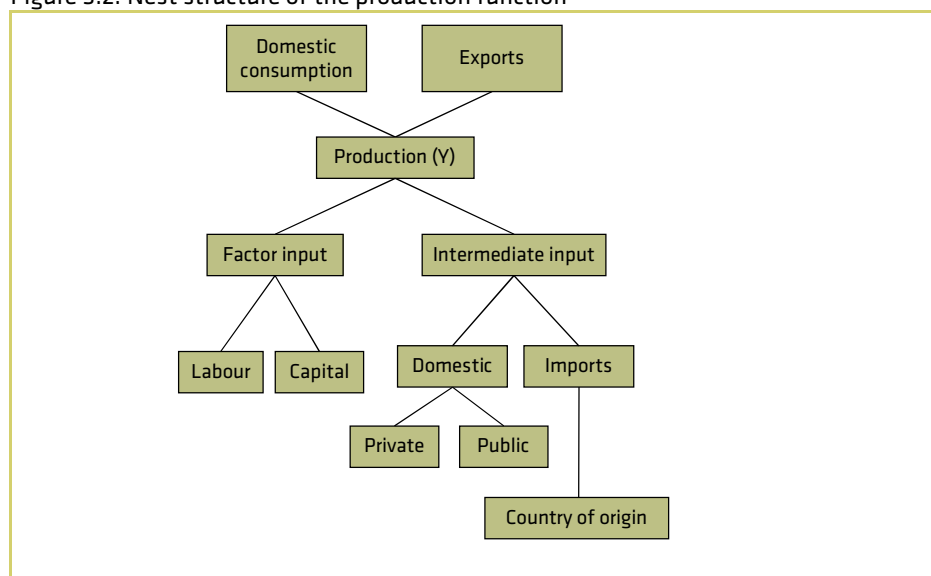
Source: Copenhagen Economics

The model is closed vis-à-vis the world market, by assuming that the real exchange rate clears the market for foreign exchange. This market consists of proceeds from exports of EU production to the world markets and demand for imports to the EU from the world markets. The balance of payments is exogenous in each country.

3.1.2. Production

In the model all sectors exhibit constant returns to scale and their firms sell their output in perfectly competitive markets. Figure 3.2 shows the structure of the production function.

Figure 3.2: Nest structure of the production function



Source: CEVM.

The production function determines the level of the final sector production of a good or service, Y , c.f. Figure 3.2. The production Y meets domestic consumer demand and foreign demand (exports) for that sector good or service. Production of a good or a service relies on the inputs of primary factors, capital (K) and labour (L), and an intermediate input. The intermediate input is comprised of both, domestically produced goods and services and imported goods and services. This is handled in an Armington function.¹⁰¹ The distinction of the country of origin of the good or service is part of the decision on whether to use domestically produced or foreign produced intermediate inputs.

3.1.3. Consumption

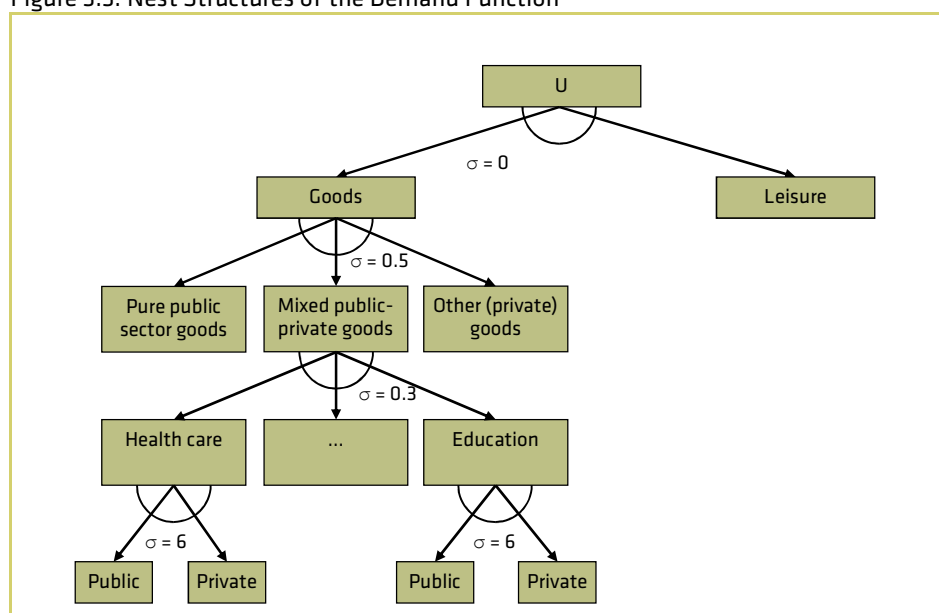
On the demand side of the CEVM a representative agent in each country is defined. Their preferences are defined over aggregate consumption of goods and services, leisure time and is characterised by a Constant Elasticity of Substitution (CES utility function). Aggregate consumption is a nested CES function of consumption of different goods and services.

The structure of the demand function has been carefully designed to match evidence from econometric studies of consumption patterns. The nest structure of the demand function is illustrated

¹⁰¹ The Armington function ensures that a good or services can be both imported and exported from a given country. Thereby, the CEVM can measure the absolute trade flows and not only net export of a given good or service.

in Figure 3.3. An explanation of why specifically these goods are included in the model, and others are not, is given in the next subsection.

Figure 3.3: Nest Structures of the Demand Function



Source: CEVM

The consumer bases his relative consumption choice on the type of consumption in question. This implies that above all, the consumer must decide on how much leisure he wants and how much consumption of goods and services he wants, in order to obtain utility, U . His overall consumption is denoted C_1 , and to finance this consumption the consumer can draw on his capital income and labour income. Labour income is obtained by refraining from leisure. Subsequently to the decision on consumption of goods and services, he then has to decide on how much income to spend on standard publicly produced services (goods that are fully publicly produced and not on the list aforementioned), purely privately produced goods and services, or goods that are produced both, publicly and privately (the consumption aggregate C_2). Upon this decision, final demand for each of the both publicly and privately provided goods is determined. At the lowest level in the decision tree end, the consumer decides between the two substitutes of the same basic good: the private good and the public good.

The substitution elasticity, σ , imply that consumption and leisure are consumed in fixed proportions ($\sigma=0$), that is, when prices change, the fraction goods/leisure does not change. There will be an income effect, because e.g. an increase in prices of goods reduces the amount of goods affordable, but the increase in the price of goods does not lead the consumer to increase consump-

tion of leisure. In contrast, the elasticity of substitution between public goods, mixed public and private goods (core services like education, health care and cultural services) and private goods ($\sigma=0.5$), implies that an increase in the price of public goods will lead to increase in the demand for private goods. This is also the case for the substitution within mixed public and private goods ($\sigma=0.3$). Finally, within a given mixed public and private good, for instance education, there is a very high degree of substitution. For example, if the share of income out of all expenditures which is spent on public education is 50 per cent, then a price increase of 1 per cent on public education will lead to a reduction in demand for public education of 3.5 per cent.

3.1.4. The public sector

The public sector consists of three parts. The first part corresponds to the traditional government sector providing administrative services, defence, police, etc. (hereinafter called Public Administration). Above, we have denoted this part 'pure public sector goods'. The second and third part both contribute to production of goods and services that are in competition with similar private goods and services. Examples are medical treatments from hospitals, waste disposal, and cultural services. In particular, the second part provides the core activity in order to deliver the good/service. The third part provides necessary support services. In the following, we will call this part of the public sector 'for public business services'.

The provision of public goods follows the production function as explained above. Thus, public provision will be cost minimizing and therefore shift input factors towards the cheapest, which means they will avoid VAT taxation if possible.

3.1.5. Time and uncertainty

The model is static. This means that firms, consumers and government do not have any saving or investment behaviour. Capital is modelled in the way that there is a fixed capital stock. Firms rent this capital against a price which equals the interest rate. When firms' economic conditions change, they can change their demand for capital – which we interpret as an effect on investment.

The model is also deterministic. This means that firms, consumers consider no events as uncertain. In the context of the type of analysis of this project, this implies that VAT reforms come as complete surprises to firms and consumers, and there is no hoarding of VAT exempt goods and services, because firms and consumers perceive that there is a chance/risk that prices increase.

3.1.6. Money

There is only one currency in the model, so there are no costs of exchanging currencies, and there is no uncertainty regarding the developments in exchange rates.

3.2. COUNTRIES, MARKETS, SECTORS, AND INDUSTRIES

The model encompasses the EU27. The model is built on data on the economic activities in these countries. This means that most of economic activities take place in Germany, France, UK, Spain and Italy. It also encompasses the following general markets: goods markets, labour markets, and other factor markets. The goods markets can, in principle, encompass any good for which we have information. The GTAP data, for which the model was originally designed, encompass 56 goods. These 56 goods vary greatly with respect to the degree of specificity. For example, one good is paddy rice, another good is public administration, defence and education. This structure of the original input data reflects that the model was originally built for trade analysis, where there is a need for high levels of detail regarding traded goods. For the purpose of analysing VAT issues we need more detailed data on the public sector, but we are not so much interested in EU's external trade with goods. To set up the model we need to decide which sectors we want to model separately.

The present study is an extension of previous work in Copenhagen Economics and KPMG AG (2011).

In the previous study we defined a set of sectors, which we thought was necessary to include separately in the model, that is, sectors with individual input structures, VAT rates and cost and demand conditions. Apart from the private sector – ‘rest of the economy’, we chose to include broadcasting, cultural services, education, health care (sometimes referred to as hospitals), public administration and waste and sewage disposal. The criteria we used for selecting the original set of sectors were

- The sector performs activities that are often governed by public law
- The sector performs activities where there is potential or actual competition between private and public bodies
- The sector is economically significant

The criterion that a sector performs activities governed by public law led us to pre-select the following sectors: waste and sewage disposal, road construction (and tolls), universities, hospitals and nursing homes, public administration, water and energy supply and public transportation.

At a later stage, broadcasting and cultural services were added to the list of sectors governed by public law.

To identify sectors which perform activities where there is potential or actual competition between private and public bodies, we went through the list of all public sector activities as defined in the “Classification of Functions of Government” (COFOG) nomenclature of public sector activities. We classified each activity as having either no potential or actual competition, possibly potential or actual competition, or definitely potential or actual competition. This exercise resulted in the following list of sectors: Fuel and energy, transport, communication, waste and sewage management, water supply, hospital services, cultural services and education.

The criterion of economic significance is only applied to the decision of whether to include a sector into the economic model. If a sector is economically insignificant, changes in VAT may have a great impact on the sector, but this effect will not appear in the model’s results for economy wide effects. This means that only little additional insight is gained by including such sectors into the model. We did not make a well-defined threshold for how significant a sector should be, but if a sector constitutes less than 1 per cent of GDP, we considered omitting it from the model because of insignificance.

In the previous study, the final list of sectors included into the model constituted of fuel and energy, transport, communication, broadcasting, cultural services, waste and sewage disposal, hospitals (health care), education, public administration and the rest of the economy. It turned out that fuel and energy, transport and communication did not have differential VAT treatment between public and private bodies on a significant scale. So even though the sectors were included in the model, they were not presented in the report, because they played no role in the results of the VAT scenario estimations based on the economic model. Therefore, the previous study focused on broadcasting, cultural services, waste and sewage disposal, hospitals (health care), education, public administration and the rest of the economy.

In the present study, we still model the sectors we modelled in the previous study. However, the Terms of Reference require that the present analysis should also include postal services, toll roads, parking services and air traffic control services. We have chosen to only model postal services separately in the model, while keeping toll roads, parking services and air traffic control as part of the major GTAP sectors to which they belong: public administration, air transport, and transport not elsewhere classified. There are different reasons for this. An overview of these reasons is given below.

3.2.1 Reasons for modelling postal services separately

Postal services has undergone a privatization process; however, almost all European incumbents are still state-owned. There is a range of exemptions for designated universal postal service providers, which imply that these operators receive exemptions which other postal operators do not receive. These exemptions pertain to specific postal services, which are substitutes to postal services without exemption.

Overall, the postal sector makes up approx. 0.6 per cent of the EU27 GDP, with sizes range from 0.3 per cent in Cyprus to 1.4 per cent in Sweden. The sector is thus smaller than most of the other sectors considered in the analysis, but it is still significant, and indeed is for those closely involved in the sector. Postal services is becoming increasingly important distributing goods driven by e-commerce, including EU cross border e-commerce.

3.2.3. Reasons for not modelling Air traffic control, toll roads and parking services separately

We do not model the sectors of air traffic control, toll roads and parking services separately for a set of reasons. The said sectors have not been modelled because they are too small compared to the other sectors and/or an amendment of the current VAT rules for the public sector would not have any significant impact. This is due to the fact that activities would fall under tax exemptions, which are not affected by the envisaged reforms (air traffic control) or large parts of the sectors are already liable to tax (parking/road tolls):

Parking fees

- **Current VAT treatment**

The VAT treatment of parking services should be as follows:

If such services are carried out by private bodies they are liable to VAT.

For public bodies the special provision of Article 13 (1) first subparagraph of the VAT Directive, according to which bodies governed by public law shall not be regarded as taxable persons in respect of the activities or transactions in which they engage as public authorities, could apply. In its judgment of the 14th December 2000 (C-446/08 – Fazenda Publica and Camara Municipal do Porto -) the Court of Justice of the European Union (ECJ) ruled that the letting of spaces for the parking of vehicles carried out by a public body, is an activity, which is carried on by that body as a public authority within the meaning of Article 13 (1) first subparagraph of the VAT Directive (respectively the first subparagraph of Article 4(5) of the Sixth Directive) if it is provided under a special legal regime applicable to bodies governed by public law; that is the case where

the pursuit of the activity involves the use of public powers. We assume that this, in most Member States, applies to short term parking on public roads (e.g. confirmed for Germany by German Federal Fiscal Court, judgment of the 27th February 2003, V R 78/01). However, we think that in most Member States off-the-street-parking (e. g. parking blocks) is liable to VAT, independently of the kind of operator, because public bodies engaged in those activities are not regarded as acting as public authority (see e. g. German Federal Fiscal Court, judgment of 08.11.1989, I R 187/85, BFHE 159, 52, BStBl II 1990, 242 as regards an underground car park run by a municipality).

- **Exclusion of the sector**

For Parking, the share of GDP obviously differs largely from country to country. The share of GDP in the countries for which we have the relevant information (France, Ireland and UK) ranges from a relatively low 0,07 per cent, to a relatively high 0,4 per cent. We assume that the EU average should be between these values and, thus, be negligible compared to the other sectors. Additionally, parking-services should currently already be liable to VAT to a large extent, at least if off-the-street-parking is concerned, which covers a large share of the revenue created in this sector. Thus, the part of the sector which would be affected by a change of the VAT rules – first of all short term parking on public roads - is likely to be relatively low.

Road/Toll

- **Current VAT treatment**

The VAT treatment of the granting of access to roads, tunnels etc. can be summarized as follows:

Where the access, for instance to public roads is granted free of charge, there is no taxability for VAT purposes. In contrast, providing access to roads, bridges or tunnels on payment of a toll constitutes a supply of services for consideration within the meaning of Article 2 (1) (a) of the VAT Directive and an economic activity within the meaning of Article 9 (1) of the VAT Directive. This applies independently of the way of collecting the toll (via toll station, vignette-system, electronic system) and of whether the toll applies only to trucks, all vehicles, only for certain roads, tunnels etc., or the whole road network.

Thus, if for instance a road is run by a private operator the activities fall within the scope of VAT and are liable to tax.

The (economic) activities in question do not fall within the scope of VAT pursuant to Article 13 (1) first subparagraph of the VAT Directive, if they must be attributed to a public body acting as a public authority.

VAT treatment throughout the EU within that sector varies greatly. Whereas the toll for highways in France, Italy and Spain (usually run by private bodies) or the payment e.g. for a vignette in Bulgaria includes VAT, the toll for trucks in Germany does not.¹⁰²

- **Exclusion of the sector**

The exclusion for modelling purposes of the 'toll' sector is justified, because its share of 0,196 per cent of GDP is relatively low compared to other sectors. Additionally, countries where this sector plays an important role such as Spain, Italy and France treat the relevant services already as liable to VAT, independently of the nature of the operator. Consequently, a possible amendment of the current VAT rules would not affect the VAT treatment in those countries. Although in some important transit countries tolls, respectively the underlying services, are treated as out of scope (e.g. the toll for trucks on highways in Germany), the average EU wide impact of a VAT reform should be relatively limited.

Air traffic control

- **Current VAT treatment**

In some EU countries air traffic control is carried out by public, in others by private bodies.

Public bodies

If it is provided by public bodies one must distinguish between 'out of scope' and 'within scope' services. Air traffic control is 'out of scope' in cases where these services are related to aircraft activity in the approach and take off zone or in upper and lower air space. Services are 'within scope', if the services are provided in the airport zone. Possibly, the latter services are tax exempt pursuant to Article 148 (g) of the VAT Directive, if the respective aircraft is used by airlines operating for reward chiefly on international routes in the meaning of Article 148 (e) of the VAT Directive (see VAT Committee, unanimously adopted Guidelines at its 64th meeting).

Private bodies

Air traffic control services carried out by private bodies are within scope of VAT, but in most cases they will be tax exempt (if the requirements of Article 148 (g) in connection with Article 148 (e) of the VAT Directive are met).

¹⁰² see e. g. the overview about tolls in 36 European countries published by the Austrian Federal Economic Chamber ["Straßenbenutzungsgebühren in Europa"], see following link:
http://portal.wko.at/wk/format_detail.wk?AngID=1&StID=240298&DstID=0

Eurocontrol

For Eurocontrol the following VAT treatment should apply: It is a non-taxable person both in respect of its en-route navigation control services and in respect of the calculation, collection and redistribution of fees levied on airline companies where these services are supplied to non-taxable persons (see VAT Committee, unanimously adopted Guidelines at its 64th meeting).

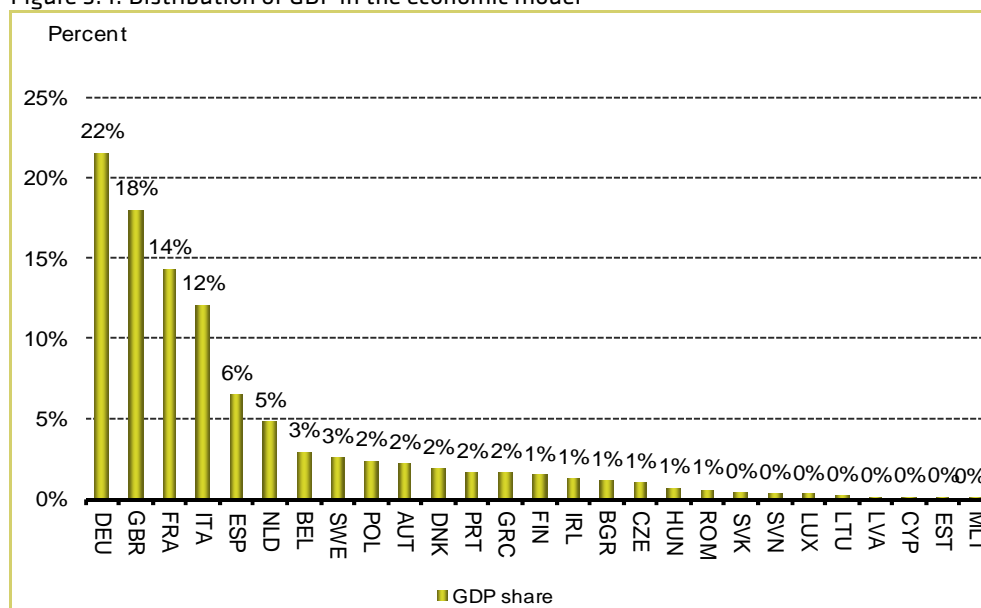
Conversely, it is a taxable person if the services are supplied to private bodies. The services should be tax exempt if the requirements of the tax exemption pursuant to Article 148 (g) of the VAT Directive are met.

Exclusion of the sector

To conclude, we are of the opinion that this sector could be negligible for modelling the consequences of an amendment of the current VAT regime for the public sector. Even if the supplies are taxable or would become taxable after a possible amendment of the VAT rules for the public sector, they would be covered to a large extent by the tax exemption pursuant to Article 148 (g) of the VAT Directive (international airlines). Only where the recipient of the service is an airline operating chiefly on national routes (a rather exceptional case in this sector), an amendment of the rules would entail a liability to tax.

The countries encompassed in the model, along with their relative shares of economic activity are shown in Figure 3.4. As expected, Germany (DEU) is the largest economy with approx. 22 per cent of total EU27 GDP. Some countries appear with 0 per cent in the figure. This does not mean that the countries has no GDP – their share of EU27 GDP is just closer to 0 per cent than to 1 per cent.

Figure 3.4: Distribution of GDP in the economic model



Source: Copenhagen Economics on the basis of GTAP data.

The relative sizes of the economic sectors differ from country to country. Generally, the largest sector is the private sector – rest of the economy. The smallest sectors in our model (postal services and broadcasting) have GDP shares in the neighbourhood of 0.3-0.6 per cent. Table 3.1 contains an overview of the sizes of the modelled sectors.

Table 3.1: Sizes of the modelled sectors

Sector	Share of EU27 GDP, per cent
Broadcasting, public and private	0.3
Education, public and private	3.6
Hospitals, public and private	2.7
Cultural services, public and private	6.0
Waste disposal, public and private	1.0
Postal services, public and private	0.6
Public administration, public	20.9
Rest of economy, private	65.5

Source: Copenhagen Economics VAT model

3.3. HANDLING OF VAT IN THE MODEL

The model calculates VAT in 2 different ways, depending on whether the VAT is paid by producers or by consumers. These are:

- *Input VAT: VAT paid on input to producers (public, as well as private)*
- *Output VAT: VAT paid on final consumption*

In the following the model treatment of these two types of VAT is described.

3.3.1. Input VAT

Input VAT is paid on all taxable inputs by all producers. This input VAT is however deductible for all taxable and non-exempt producers. This means that the net-input VAT payment for taxable producers is zero. We model this by setting the input VAT rate to zero for all taxable and non-exempt producers and to the standard rate for all non-taxable or exempt public producers¹⁰³. Thus, in the model we thus take into account that input VAT is recoverable by taxable and non-exempt bodies.

3.3.2. Output VAT

Output VAT is paid on all taxable goods and services for final consumption, given that they have a positive price. The end-user price on final consumption reflects the value added throughout the supply chain.

We use this insight to model VAT on output, by a goods- and service specific VAT rate on final consumption, whenever a price is paid by the consumer. Therefore, the economic model only adds VAT on goods that are delivered for a consideration. Currently, a number of sectors are treated as non-taxable or tax-exempt. We model this by setting a zero output VAT rate on these sectors, but a positive VAT rate on input purchases.

We assume that the current VAT system can be described by the following VAT rates, as shown in Table 3.2 and Table 3.3. Table 3.2 shows which VAT rates are charged on different sectors' outputs. For example, when a public sector broadcasting firm in Austria supplies services to final consumers or other sectors, it adds 10 per cent VAT to the before VAT price. Table 3.3 shows how much input VAT costs for a sector in case it purchases from a taxable and non-exempt sector. For example, if a public broadcasting firm in Austria buys services from a firm in a sector which is taxable and non-exempt, it costs zero VAT, because the public broadcasting sector in Austria is taxable and can recover input VAT. In contrast, when a public broadcasting firm in

¹⁰³ In fact, the underlying (Input) supplies is to a certain extent liable to the reduced rate but for simplification purpose the modelling was based on the assumption that they are all liable to the standard VAT rate.

Germany buys services from a sector which is taxable and non-exempt, it costs an additional 19 per cent VAT of the price before VAT, because German public broadcasting is non-taxable.

Table 3.3 shows the VAT rate paid by public producers, if they use support functions as input. This rate is the net-rate after any national compensation scheme. The VAT rate shown for core sectors (broadcasting, cultural services, hospital services, education, waste disposal, public administration) and rest of the economy, is the VAT rate faced by consumers of these services.

A couple of features about our assumptions are noteworthy. First, for postal services we distinguish between an exempt sector and a non-exempt sector, while for the other services we distinguish between a public sector and a private sector. We do this, because in other sectors like health care, the exemption or non-taxability is defined on the basis of whether a service provider is operating under public or private law. In the case of the postal sector, the exemptions are most often defined on the basis of whether the services delivered are within the scope of a universal service obligation, or whether the operator is designated as a universal service provider.

Second, for purposes of modelling the input side distortion (non-recoverability of VAT leads public sector to choose self-supply rather than outsourcing), we create an artificial economic sector called 'public business services'. In the economic model, self-supply by the public sector is modelled as a public sector (e.g. education) buying services from public business services, rather than buying from private business services.

Third, in some of the cells of the table with cost of input VAT, Table 3.3, there is a '0', even though the sector is non-taxable or exempt. This is because the sector benefits from a VAT refund scheme.

Forth, a zero in the output VAT table does not imply that a sector is zero-rated, but more likely that it is exempt or non-taxable. In the case of the input VAT table, it means that the sector can recover input VAT or has a refund scheme.

Fifth, the rates shown in the VAT rate tables do not imply that the average VAT rate paid on purchases in say, public cultural services in Germany is 19 per cent, cf. Table 3.3. It means that if public cultural services in Germany buys from a taxable and non-exempt seller, and no reduced rates apply to the purchase situation, the VAT rate charged would be 19 per cent.

Table 3.2: Benchmark VAT rates charged on outputs, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	10	21	0	0	0	25	0	23	7	0	0	0	0	0	22	0	3	0	0	0	23	0	0	0	0	0	0
Private Broadcasting	10	21	20	15	20	25	20	23	7	19	13	27	23	10	22	21	3	18	19	8	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	21	0	0	0	25	0	23	0	0	0	27	13.5	0	22	0	3	0	0	0	0	24	20	8.5	0	25	0
Private waste disposal	10	21	20	10	14	25	20	23	19.6	19	13	27	13.5	15.5	22	21	3	18	19	8	14.5	24	20	8.5	8	25	10
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics and KPMG (2011) and DG TAXUD.

Table 3.3: Benchmark cost of input VAT, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	20	15	20	0	20	0	0	19	23	27	23	21	0	21	0	18	0	23	0	24	20	20	18	25	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	20	21	20	15	20	12.5	20	23	19.6	19	23	0	23	21	22	21	15	18	19	23	23	24	20	20	18	0	0
Private cultural services	20	0	20	0	0	12.5	0	0	0	19	0	0	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public business services	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Private business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public waste disposal	0	0	20	15	20	0	20	0	19.6	19	23	0	0	21	0	21	0	18	0	23	23	0	0	0	18	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private hospitals	0	21	20	15	20	25	20	23	19.6	19	0	27	23	21	22	21	15	18	0	0	0	24	20	20	18	25	20
Public education	20	21	20	15	20	25	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private education	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public administration	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Copenhagen Economics and KPMG (2011) and DG TAXUD.

The tables show the two sources of distortions between public and private sector bodies:

- In a range of sectors there is a differential treatment of public and private sectors on the output side.
- The VAT treatment of inputs differs for the public and private sectors

Our presentation of the input VAT rates is a rough simplification, because some inputs may be subject to other VAT rates than the standard rates. However, we have not had data available to construct properly weighted input VAT rates on a sectorial level.

3.4. CONSIDERATION

Generally, every supply is taxable for VAT purposes if it is carried out against a consideration (Article 2 of the VAT Directive) and qualifies as an economic activity in the meaning of Article 9 of the VAT Directive.

According to the settled case law of the Court of Justice of the European Union (ECJ), the scope of the term ‘economic activity’ is very broad and the term is objective in character, in the sense that the activity is considered per se whatever its purpose or results.¹⁰⁴ In any case, the ECJ has stated that the activity at issue must aim at the procurement of income on a continuing basis¹⁰⁵, not necessarily entailing a profit¹⁰⁶. However, the receipt of a payment does not, per se, mean that an activity is economic in nature. The relevant supply must be effected for consideration within the meaning of Article 2(1)(a) of the VAT Directive. The latter requirement is fulfilled if there is a direct link between the provider and the recipient, according to which there is a reciprocal performance, the consideration received by the provider of the service constituting the value actually given in return for the service supplied.¹⁰⁷ The term consideration also includes benefits granted by a third party, including subsidies directly linked to the price of the supply, Article 73 of the VAT Directive.

For example, if a University has, without charge (without receiving any payment) carried out research for a public entity, this is a case of ‘*no consideration*’.

The concept of consideration can be elaborated more precisely in Figure 3.5 below. In some sectors, such as education, cultural and broadcasting sectors, a service might be delivered without

¹⁰⁴ E.g. ECJ, judgment of 26 June 2007, C-284/04 - T-Mobile Austria and others -, paragraph 35; judgment of 21 February 2006, C-223/03 - University of Huddersfield -, paragraph 42.

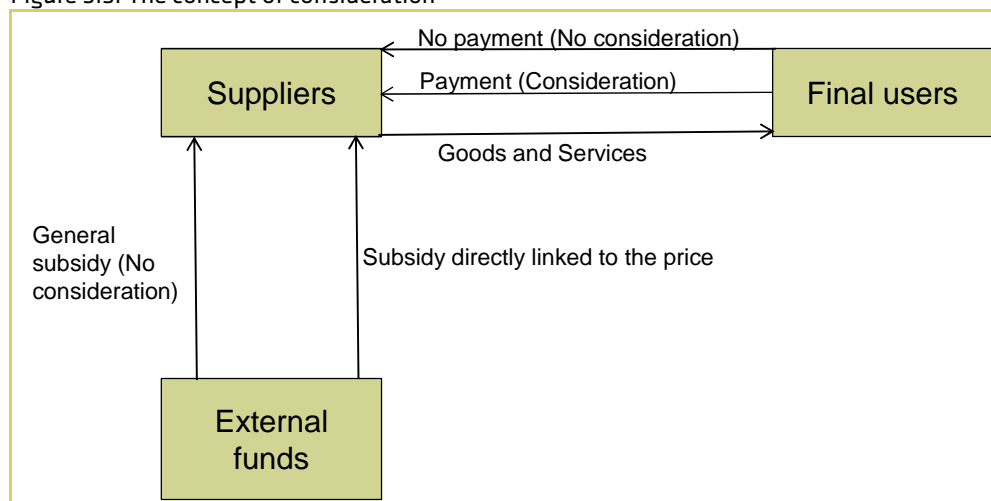
¹⁰⁵ E.g. ECJ, judgment of 26 June 2007, C-284/04 - T-Mobile Austria and others -, paragraph 38 with further references.

¹⁰⁶ See e.g. the opinion of the Advocate General concerning the case C-246/08 - Commission v. Finland - delivered on 7 July 2009, paragraph 38.

¹⁰⁷ E.g. ECJ, judgment of 3 March 1994, C-16/93 - Tolsma -, paragraph 14.

direct payment from the users. In such situation, if the government directly subsidises the sectors directly linked to the price of the service carried out, then there will be a consideration. However, if the government generally subsidised the sectors, irrespectively of the service rendered, then there will be no consideration.

Figure 3.5: The concept of consideration



Source: Own exposition.

If a public sector service is rendered without consideration, it will not be subject to VAT payment. Let us take a closer look of the university example given above. If we assume that the university has carried out research for a public body, without receiving any direct payment for the research, we must assume that the university accepts some kind of general subsidy unrelated to this specific research carried out. Such an exchange will be classified as ‘without consideration’ and hence, there will not be any VAT added by the university to the public body.

Thus, for modelling purposes we need to identify the share of public sector services that are rendered without consideration, because this part of the economy will continue to be non-taxable, even in the full taxation scenario. We have estimated the share for consideration using two approaches explained below

3.4.1. Approach 1

We found official Eurostat data on the size of public expenditure on different COFOG-categories and divided the public expenditure by the relevant sectors’ GDP from Eurostat. This would give us a minimum estimate of the share for consideration, because public expenditure in a sector can be a consideration. However, when we looked at the actual data, we found that pub-

lic expenditure often exceeded the GDP of the sectors we linked the public expenditure to. So this approach did not prove fruitful.

3.4.2. Approach 2

We combined assumptions based on our broad understanding of public administration, waste and sewage disposal, postal services and cultural services with detailed analysis of the broadcasting, health care and education in a selection of countries.

We selected Denmark, Spain and UK for detailed analysis, because we have the best access to information for these countries. For these countries we looked into ways of financing of education and health care, at the level of the unit which delivers the final service to the citizens. For example, we analysed how hospitals and schools are financed, that is, the share of health services delivered against a consideration equals the share of expenditure, which is financed either through private health insurance, out-of-pocket expenditure by citizens or through fee-for-service public sector expenditure. An example is shown in Box 3.1. Furthermore, we searched the web for summary information on how public expenditure in different sectors is financed. We found information on how public sector broadcasting is funded for a range of EU countries. Specifically, we found out in which countries public broadcasting is financed through licences, and we interpret licences as a consideration for the right to receive public broadcasting. We used this information to estimate the share of the remaining countries, as an average of the consideration shares for the countries where we did find information.

Our assumptions are:

- Concerning postal services, we assume that all services are delivered against a consideration¹⁰⁸.
- Concerning waste and sewage disposal, we assume that all services are delivered against a consideration. Evidence supporting this assumption can be found in Eunomia's report for DG Environment: Financing and Incentive Schemes for Municipal Waste Management Case Studies.
- Regarding cultural services, we assume that the share of services delivered against a consideration is between 0.2 and 0.8.
- Regarding public administration, we assume that the share of services delivered against a consideration is 0. This is probably a lower-end estimate, because some services, for instance the issuance of different legal forms are performed against a fee.

A summary of our analysis and assumptions is given in Table 3.4.

¹⁰⁸ General subsidies are paid but are negligible.

Box 3.1: Example: Estimating the share of services delivered against a consideration in the EU education system

To estimate the share of services delivered against a consideration in the UK education system we first identify the main components of the education system: Pre-primary and primary education, secondary education, post-secondary and non-tertiary, tertiary education, education not definable by level, subsidiary services to education, R&D education, and education not elsewhere classified. Then we search the literature for information on how each of the components are financed. We focus on the part of the system which delivers the final services to citizens. We work with major blocks of funding, which we assume are either completely financed through consideration or not financed through consideration at all. We then estimate the expenditure share of each of the blocks of funding.

	Share for consideration	Total public expenditure, billion pounds, 2010
Pre-primary and primary education (1)	0,17	0,80
Secondary education (2)	0,00	14,30
Post-secondary and non-tertiary (3)	1,00	0,00
Tertiary education (4)	1,00	12,90
Education not definable by level (5)	0,50	55,70
Subsidiary services to education (5)	1,00	1,00
R&D education (5)	0,50	0,00
Education n.e.c (5)	0,50	3,80
Weighted average share for consideration	0,50	88,50

Note: (1): The early years single funding formula - seventh report of session 2009-10. This tells us that early childhood (<5 years) education is funded 100% through consideration (pp. 14-15). https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/United-Kingdom-England:Early_Childhood_and_School_Education_Funding tells us that schools are funded 100% through non-consideration. we weigh the total expenditure on pre-primary and primary according to expenditure data from HM Treasury (2011) p. 70, which states that pre-primary constitutes 16,9% of total expenditure on pre-primary and primary education. (2) The vast majority of schools' income comes via central government grants paid to local authorities. Maintained schools receive their recurrent funding for providing education for children from age five to age 16 from their local authority (LA) in the form of the Dedicated Schools Grant (see below). Some schools e.g. academies (see the 'types of institution' subheading in the article on organisation of general lower secondary education) are not maintained by the local authority; they are still largely publicly funded however but receive their funding directly from central government. Funding from central government to local authorities. The Dedicated Schools Grant (DSG) is passed from central government to local authorities; it is ring-fenced funding, which means it must be passed on to schools in full (except for funding certain schools-related services provided centrally by the LA - see below). A three-year DSG funding settlement for the period 2008/09 to 2010/11 was announced by the previous Government in 2007; prior to this the amount of grant provided to local authorities was agreed on an annual basis. The three-year DSG settlement was intended to enable local authorities to plan ahead, take more long-term decisions and to use their budgets efficiently and strategically over the three-year period. The formula for the amount of DSG passed from central government to a local authority is based on projected pupil numbers; projected delegated budgets for individual schools; and projected budgets for other services for pupils provided by local authorities, such as special educational needs provision. Funding from local authorities to schools. The Dedicated Schools Grant (DSG), that is, the core funding that the LA receives from the Government for schools, is divided into an amount for the LA's centrally retained schools budget and the individual schools budget (ISB). LAs are also free to contribute to school funding from local taxation. The LA's centrally retained budget provides for a number of local authority responsibilities for education as set out in regulations. Such responsibilities include those relating to special educational needs and access to education (such as expenditure on the administration of admissions). The ISB is delegated to schools using a local funding formula, or 'scheme for financing schools'. The individual school allocations are known as 'budget shares'. Each LA develops its own scheme for financing schools, in accordance with the School Finance (England) Regulations 2011. LAs also

have a statutory duty to consult with the local Schools Forum when determining and/or changing their scheme. The school finance regulations specify factors which must be taken into account and factors which may be taken into account. Pupil numbers, and a factor based on the incidence of social deprivation among pupils must be taken into account. Pupil-related weightings are based on: age; special educational needs; whether they are following more practical and applied learning options; whether they have English as an additional language; the turnover of pupils other than as part of the general admissions process at a school; and prior attainment. Other factors that may be taken into account are the size and condition of a school's buildings and grounds relative to other schools; salaries at a school; or numbers of newly qualified teachers (NQTs). We do not know how the individual local authorities set the Individual allocations to schools, so we assume that they - like the centralized school budget is not a consideration. So we assume 0% consideration.(3) New arrangements for the funding of education and training for those aged between 16 and 19 years of age came into force in April 2010. Since then, the priorities for young people and the responsibility for the outcomes achieved by them has been shared by local authorities, the Young People's Learning Agency (YPLA) and the schools, further education colleges and training organisations that working with them. These funding arrangements apply to all those aged 16-19 and those 19-25 who are subject to a learning difficulty assessment. 'Statutory Guidance Funding Arrangements for 16-19 Education and Training' has been prepared by the YPLA under the Apprenticeships, Skills, Children and Learning Act 2009. The key elements of the funding system are: •Funding follows student choice - and student volumes drive form student performance and their own improvement, planning what they deliver, within the context of the priorities for young people in their area. Allocations are based on a national funding formula and reflect learner numbers in the preceding year. Minimum Levels of Performance (MLP) are set nationally and provision is not funded if it falls below these levels and fails to improve. Funding is delivered so that each provider receives their calculated allocation from a single source: •Funding for maintained schools with sixth forms goes from the YPLA through local authorities to schools •Funding for academies, sixth form colleges and independent providers (in cases where the YPLA is the main funder) passes directly to the provider from the YPLA •Funding for general further education colleges and for other independent providers flows from the YPLA through the Skills Funding Agency to colleges and providers. •Funding for Apprenticeships is provided through the Skills Funding Agency. The organisations providing funding for learning for young people from the age 16 are expected to focus this investment on raising the participation age (to 17 by 2013, and 18 by 2015). That means: 100% for consideration.(4)Funding of UK higher education institutions is based on a funding formula. Only students completing their year of study are counted. (WLS): Only a very small proportion of student related funding depends on the number of students registered. Most student related funding depends on the number of study credits completed. We interpret this as meaning that all funding is a consideration.(5) assumed equal to weighted average of the other categories

Source: Own development.

Table 3.4: Share of consideration in the sectors analysed

	Broadcasting	Cultural services	Education	Health care	Postal sector***	Public administration	Waste and sewage disposal
Austria	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Belgium	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Bulgaria	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Cyprus	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Czech Republic	1*	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Denmark	1*	0,2-0,8**	0,36*	0,56*	1**	0**	1**
Estonia	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Finland	1*	0,2-0,8**	0,43**	0,34**	1**	0**	1**
France	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Germany	1*	0,2-0,8**	0,43**	0,34**	1**	0**	1**

Table continued: Share of consideration in the sectors analysed

	Broadcasting	Cultural services	Education	Health care	Postal sector***	Public administration	Waste and sewage disposal
Greece	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Hungary	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Ireland	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Italy	1*	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Latvia	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Lithuania	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Luxembourg	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Malta	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Netherlands	0*	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Poland	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Portugal	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Romania	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Slovakia	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Slovenia	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**
Spain	0*	0,2-0,8**	0,43**	0,34*	1**	0**	1**
Sweden	1*	0,2-0,8**	0,43**	0,34**	1**	0**	1**
UK	0,75**	0,2-0,8**	0,5*	0,4*	1**	0**	1**
EU	0,75**	0,2-0,8**	0,43**	0,34**	1**	0**	1**

Note: * Estimated on the basis of detailed analysis of institutions' funding structure. ** Assumed, based on our general knowledge of the country and/or sector. *** We have contacted DG Internal Market and Services for checking the share of consideration in postal sector. They have confirmed us that almost all of the exempt postal services in the EU are rendered against consideration. In our understanding only in Italy there is a potential issue of subsidies not linked to a specific service in the postal sector because the Italian USP receives a grant from the State.

Source: Own analysis based on literature review and assumptions. Details of the analysis can be obtained from Copenhagen Economics on request.

3.5. SPECIAL FEATURES OF THE MODEL SET-UP FOR THIS ANALYSIS

In this section, we address three important assumptions in the modelling exercise and explain how and why they are modelled the way they are:

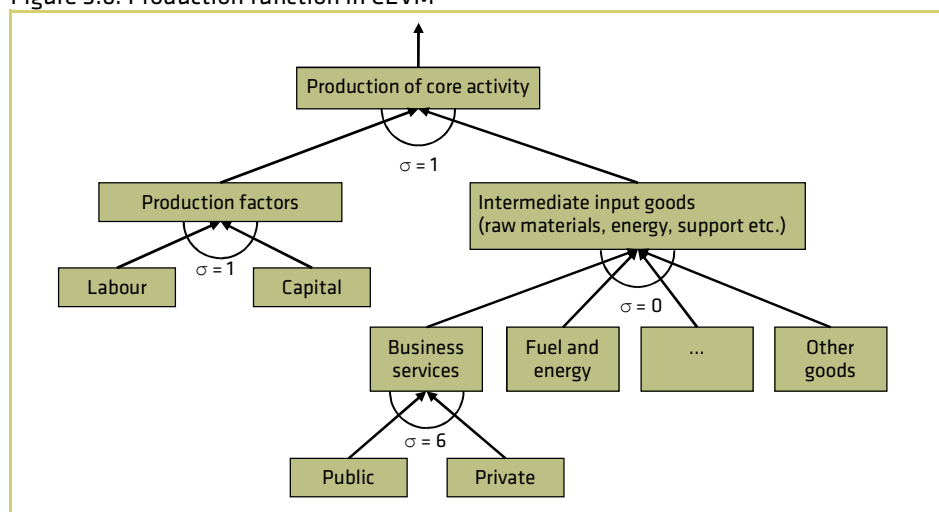
1. Substitution between private and public provision
2. Non-pecuniary, country-specific barriers to private outsourcing
3. The level of compliance costs

Thus, this section provides background knowledge for understanding the size and robustness of the results.

3.5.1. Substitution between private and public provision

In understanding the substitution between private and public provision of support services, we may think of the public entities in a completely similar fashion to private sector firms: they all produce an output to the consumers using various production inputs, and they all behave economically rationally, drawing more on inputs which are cheaper than on more expensive inputs, everything else being equal. The specific needs for input to public production are contained in the production function. The production function is a representation of inflows and outflows of production processes. In Figure 3.6 we provide a graphical representation of the production function.

Figure 3.6: Production function in CEVM



Note: The Greek letter σ denotes a given substitution elasticity.
 Source: Copenhagen Economics based on CEVM

All inputs to the production of the core activity (e.g. production of health care services or social services) can be identified by looking at the lowest level of the figure. Labour, capital, a number of input services and raw products are necessary inputs to production, but their input levels obviously depend on the specific production process.

The major issue in this report, however, is how well private business services can substitute public self-supply as input to production of the core activity. If substitutability is easy, because input services are very homogenous, then differential VAT will have large effects.

Our basic assumption is that support activities are very homogenous – according to the proverb ‘cleaning is cleaning’. However, we also acknowledge that the two options are never perfectly homogenous. It may make a difference to, say, hospitals, where stringent hygienic rules are ap-

plied by the management. In this case, in-house provision of cleaning may be preferred irrespective of VAT rules.¹⁰⁹ Thus, substitutability may only concern a limited part of hospital cleaning, e.g., hallways.

More technically, we model the degree of substitutability by incorporating a so-called substitution elasticity, denoted by σ , determining how flexible the producers can shift between inputs. When the elasticity is low, there is not much possibility of shifting, and in the limiting case where the elasticity equals zero, the producer needs inputs in a fixed proportion, in order to produce one unit of output.¹¹⁰ On the contrary, if the substitution elasticity is high, the producer is much more flexible to upscale the level of cheap inputs and downscale the level of expensive inputs. We assume a substitution elasticity between public and private business services of 6, which is relatively high.¹¹¹ This means that if the price of public input services increases by 10 per cent more than the price of private services, then the expenditure share of public services will drop by 60 per cent.

The best type of comparison concerns the substitution between domestically produced goods and imported goods. These are definitely very close substitutes, as they basically satisfy the same needs, but country-specific tastes imply that import substitution elasticities never reach the limit of infinity (perfect substitutability). In the GTAP model, the import substitution elasticity have been set to 7, while the “General Equilibrium Model for Energy-Economy-Environment interactions” (GEM-E3) applies econometrically estimated elasticities in the range 1-5 (most estimates in the higher end).¹¹² Another econometric study reports substitution elasticities in the range 1-13.¹¹³ Thus, our suggested value of 6 does not seem to be extreme in either direction.

3.5.2. Consumer welfare

We calibrate the model to fit actual behaviour, c.f. Box 3.2. An important assumption is that substitution elasticities are modelled as being equal across countries and industries.

¹⁰⁹ Although contracts specifying in detail the requirements can be made.

¹¹⁰ This proportion is determined by empirical input-output data underlying the model.

¹¹¹ The choice is based on a survey of other models and on former versions of the CEVM.

¹¹² Nemeth et al (2008).

¹¹³ Erkel-Rousse and Mirza (2002).

Box 3.2: Calibration of the model: country and industry specific parameters

The model used is a CGE model with CES-utility and production functions. This means that for an n input technology the CES production function is usually written as

$$Y = \left(\sum_{i=1}^n (\theta_i X_i)^{1/\rho} \right)^\rho$$

where $\rho = 1/(1 - \sigma)$ and Y is output, X input, and θ a share parameter. In the model, this production function then relates to a cost minimization problem, where most calibration algorithms apply the first order necessary conditions to calibrate the unknown share parameters when compared with real data for Y and X (remember that σ is given explicitly.) The actual value of the share parameters will differ between countries and industries and capture the actual production possibilities for a given industry in a given country. The same applies to the consumers demand for goods, where the representative agent demands a bundle of goods. The calibration of the model to the baseline scenario is done based upon inserted input / output table data. A data description is given below.

Source: Copenhagen Economics.

3.5.3. The level of compliance costs

Estimates seem to suggest significant compliance costs associated with a refund system. A recent OECD review on the size of public and private compliance costs associated with complying with the VAT systems in Europe, reports losses in the area of 0.0-0.5 per cent of GDP, cf. Table 3.5.

Table 3.5: Estimates of administrative costs from systems of consumption taxation

Country	Year	Pct. of GDP
Austria	2007	0.1
Denmark	2004	0.1
Germany	2007	0.5
Netherlands	2002	0.3
Norway	2007	0.0
UK	2007	0.1

Source: OECD (2008). Eurostat GDP figures have been used to convert OECD monetary estimates into comparable shares of GDP.

However, it is not certain that complying with a refund system designed to eliminate the VAT bias is much worse than complying with differential VAT treatment under the current system. Our interviews with public authorities in the eight Member States that actually do have such systems in place seem to indicate that administrative costs are small to medium, cf. Table 3.6. So they do exist, but are probably not significantly high.

Table 3.6: Size of administrative costs from refund systems in 8 EU Member States

Size of administrative costs	Number of EU Member States
High	0
Medium	2
Low	5
No answer	1

Source: Legal questionnaire, filled out by KPMG experts.

Based on these considerations, we overall conclude that the two elements of other barriers and compliance costs are likely to be non-trivial in practice. We conclude that barriers to outsourcing exist, in addition to biased VAT treatment.

3.5.4. Data collection on core services

The following input, based on statistical data and assumptions has been used for input as data input for the model.

The baseline model data is from the GTAP database, which provides us with an input/output table for the European countries and rest of the world.

We hereafter map the sectors used in the GTAP database to the sectors as specified in the CEVM. As GTAP does not split between private and public sectors, hence we do that ourselves. This is done for all sectors except the aggregate private produced good, Y. This choice of sectors presents us with some challenges concerning the modelling:

- We do not know how big the share of each sectors' private and public sector are. This knowledge is important, since the problems of VAT treatment may lead to activities being shifted between the public and private suppliers in the sectors. In particular in broadcasting and waste disposal, there are differences in the VAT rates applied to public and private suppliers in the current situation. To assess the impact of these shifts we need to know the sizes of the public and private parts of the sectors.
- We do not know how much of these sectors' inputs comes from self-supply and how much comes from external suppliers. This particularly becomes a problem with respect to the public sector bodies.

3.5.5. Public private split

In order to address challenges, we initially tried to collect data using an economic questionnaire, which was sent out along with the legal questionnaire reported in chapter 2. However, the in-

formation collected through this exercise was not sufficient for our purposes. Therefore, we used data from the Amadeus database to estimate the public-private split.

For each relevant sector we calculate the relative size of the private and public part, based on data from the Amadeus database. The Amadeus database provides information on 15+ million European companies, both public and private, categorized by sector. On this basis we calculate turnover in the private and public sector and use this to split up the individual sectors.

In fact we find the entire amount of turnover in a given sector. And we then find the share that is publicly owned and the share that is privately owned. Then we split the total sector from GTAP (e.g. waste disposal) into public waste disposal and private waste disposal, by splitting all input and output relative to the calculated shares.

Broadcasting and postal services are not defined independently in GTAP data. Instead, they are both contained in a more broadly defined Communications sector. According to Eurostat statistics, the production value of postal services and broadcasting constitutes 18 per cent and 11 per cent respectively of the total value of all communication, as shown in Table 3.7. Based on this observation the postal and broadcasting sectors are created by splitting the total communication sector across all entries, by 18 per cent to postal and 11 per cent to broadcasting. The residual 71 per cent of entries in the communication sector is treated as part of 'Rest of economy' as telecommunications are not defined as a core public sector in this study.

Table 3.7: Production value of communication sectors as share of total, EU27 2009.

Countries	Telecommunications	Postal and courier activities	Programming and broadcasting activities
Austria	65%	24%	11%
Belgium	73%	18%	9%
Bulgaria	83%	9%	8%
Cyprus	77%	7%	16%
Czech Republic	78%	16%	6%
Denmark	71%	18%	11%
Estonia	71%	18%	11%
Finland	71%	18%	11%
France	71%	18%	11%
Germany	65%	23%	12%
Greece	71%	18%	11%
Hungary	77%	16%	8%
Ireland	73%	21%	5%

Countries	Telecommunications	Postal and courier activities	Programming and broadcasting activities
Italy	68%	17%	14%
Latvia	86%	9%	5%
Lithuania	84%	9%	7%
Luxemburg	71%	18%	11%
Malta	72%	17%	11%
Netherlands	71%	22%	7%
Poland	71%	18%	11%
Portugal	84%	10%	6%
Romania	82%	10%	8%
Slovakia	81%	15%	4%
Slovenia	81%	16%	3%
Spain	80%	10%	10%
Sweden	71%	18%	11%
Great Britain	74%	16%	10%

Source: EUROSTAT. Annual detailed enterprise statistics for services 2009 (NACE Rev.2 H-N and S95) [sbs_na_1a_se_r2]

Note: Due to lack of data the sector shares of following countries are based on the EU average: Denmark, Estonia, Finland, France, Greece, Luxemburg, Malta, Poland and Sweden.

On a EU27 level we get the following relative sizes of output from each sector, cf. Table 3.8.

Table 3.8: Share of output from public and private producers on EU27 level per sector

	Public	Private	Share of economy, public and private
Postal	75%	25%	0,34%
Broadcasting	37%	63%	0,17%
Education	81%	19%	2,17%
Hospitals	83%	17%	1,56%
Cultural services	28%	72%	6,54%
Waste disposal	54%	46%	0,16%

Note: The share of public production in postal and broadcasting is assumed identical to the division identified for the total of all communication sectors.

Source: Copenhagen Economics based on Amadeus, GTAP and EUROSTAT databases.

Below, the public and private share of the modelled sectors is present, cf. Table 3.9.

Table 3.9: Public and private producers' share of core functions per member state

Member state	Public share	Private share
France	64,6%	35,4%
Cyprus	54,7%	45,3%
Slovenia	65,5%	34,5%
Luxembourg	69,5%	30,5%
Great Britain	42,2%	57,8%
Malta	24,2%	75,8%
Poland	52,9%	47,1%
Portugal	42,8%	57,2%
Bulgaria	32,8%	67,2%
Austria	59,4%	40,6%
Romania	65,5%	34,5%
Sweden	67,8%	32,2%
Finland	50,0%	50,0%
Denmark	34,4%	65,6%
Netherlands	50,0%	50,0%
Ireland	42,5%	57,5%
Greece	41,7%	58,3%
Latvia	66,6%	33,4%
Belgium	46,7%	53,3%
Czech Republic	69,3%	30,7%
Lithuania	55,3%	44,7%
Italy	58,9%	41,1%
Slovakia	63,3%	36,7%
Spain	59,4%	40,6%
Hungary	43,4%	56,6%
Estonia	71,3%	28,7%
Germany	54,6%	45,4%
Average	48,5%	51,5%

Source: Copenhagen Economics, based on GTAP and Amadeus database

3.5.6. Data collection on own production of support functions

We define support functions as the input of business services to production. As we model the competition distortion between own production of support functions and private business services, we create an artificial sector called 'own production of support functions'. We define the

own production of support functions as all non-core functions. This includes internal business administration (such as HR, accounting etc.), building services and cleaning. For the model we assume that own production of support functions in relevant sectors is of the same size as the total business service sector input to the modelled public sectors. This constitutes to 10 per cent in our model.¹¹⁴

On a practical level this means that we split the total labour input into:

a. traditional labour input (90 per cent of original labour input)

b. new sector called ‘Own production of supply functions’ with an input value of 10 per cent of original labour input.¹¹⁵

The reason for this assumption is that the existence of vertical detailed business statistics is scarce, due to the fact that the common way of measuring business activities is by input and output, on a sectorial level (i.e. the statistics do not specify the split in each sector between different business functions).

Table 3.10 presents the method in use for the calculation of public administrations for EU27.

To give an overview, labour constitutes 45.5 per cent of total input to public administration. On average, private business services makes up 10 per cent of total input to the European public sector. These numbers constitute to the input of our own production of support function, which amounts to 4.51 per cent of total input ($0.455 * 0.1$). We then downgrade the original labour input by 10 per cent, so labour input to public administration now constitutes 41 per cent ($45.5 * (1-0.1)$).

¹¹⁴ The input of private business services varies between sectors, where the above assumptions makes the own production of support functions equal across sectors.

¹¹⁵ Called "XBS" in the model.

Table 3.10: Calculation of own production of support functions, public administration as example

Input	Value	Share, pct.
Labour	61	45,5%
<i>Of which own production of support functions (10 % of labour input)</i>	6	4,5%
<i>Other labour (90 % of labour input)</i>	55	41,0%
Capital	21	15,7%
		0,0%
Intermediate inputs	52	38,8%
		0,0%
		0,0%
Input from public sectors	7	5,2%
<i>Public administration</i>	4	3,0%
<i>Public communication</i>	0	0,0%
<i>Public education</i>	0	0,0%
<i>Public fuel and energy</i>	1	0,7%
<i>Public hospital services</i>	0	0,0%
<i>Public cultural services</i>	1	0,7%
<i>Public transport services</i>	1	0,7%
<i>Public water supply</i>	0	0,0%
<i>Public waste disposal</i>	0	0,0%
Input from private sectors	45	33,6%
Private business services	4	3,0%
Private communication	1	0,7%
Private education	0	0,0%
Private fuel and energy	1	0,7%
Private hospital services	0	0,0%
Private cultural services	8	6,0%
Private transport services	1	0,7%
Private water supply	0	0,0%
Total input	134	100,0%

Source: Copenhagen Economics

In relation to private business services and own production of support functions, this relation shows that for the total economy the production share between own production of support functions and private business services is seen as presented in the below Table 3.11.

Table 3.11: Input to public administration, support functions

	Share
Own production of support functions	60%
Private business services	40%

Source: Copenhagen Economics

Following the data and this calibration, private business services constitute 6.9 per cent of the total EU27 production, while own production of support functions take up 6.3 per cent. In the Table 3.12, the data is shown on a member state level in table below.

Table 3.12: Input shares to core functions of own produced support functions and private business services per member state

	Own production of support functions	Private business services
Austria	7,0%	14,2%
Belgium	6,2%	2,1%
Bulgaria	0,6%	6,3%
Cyprus	6,4%	2,2%
Czech Republic	3,7%	9,0%
Germany	8,2%	4,3%
Denmark	6,1%	1,3%
Spain	4,4%	2,0%
Estonia	4,9%	6,3%
Finland	4,3%	6,8%
France	4,0%	9,2%
Great Britain	6,2%	9,7%
Greece	6,8%	1,6%
Hungary	5,3%	8,1%
Ireland	6,9%	3,4%
Italy	8,7%	9,1%
Lithuania	4,1%	4,0%
Luxembourg	6,2%	2,4%
Latvia	4,6%	3,8%
Malta	6,3%	3,0%
Netherlands	4,6%	11,4%
Poland	4,9%	6,1%
Portugal	5,8%	1,5%
Romania	4,8%	4,8%
Slovakia	3,6%	5,7%
Slovenia	5,7%	7,5%
Sweden	5,9%	2,2%
EU total	6,3%	6,9%

Source: Copenhagen Economics base don GTAP data.

Chapter 4 THE ECONOMIC CONSEQUENCES

In chapter 2 we learned that the major problems with the current VAT treatment have to do with complexity and legal uncertainty as well as with distortive effects in relation to economic decisions of the public sector bodies and the competition with the private sector.

In this chapter we add the economic perspective on the problems of the current VAT treatment. We address the economic importance of the problems caused by distortions in relation to economic decisions of the public sector. Then we address the economic importance of distortions of competition with the private sector. In subsection 4.10 we assess the impact on SMEs of the current VAT rules.

In general in this chapter we work at a different level of detail than in chapter 2. First of all we do not link the economic problems directly with particular pieces of EU or national legislation. Second, when we present case studies, we do not collect information for all the sectors contained in the legal questionnaire in chapter 2. Third, when we collect information on productivity differences between public and private sectors, the economic data available does not allow us to take a very detailed approach to assessing the economic importance of the problems with the VAT system. We have used the knowledge we could find, and supplemented this with new case studies in selected areas. We also refer to the discussion about data availability in the preface.

4.1. SOME BACKGROUND FROM THE LITERATURE

There is a small body of research on the question of how differential VAT treatment of private and public bodies affects their sourcing decisions.

Ernst & Young (1998) analyse how the current VAT system in the EU15 works by applying legal and economic principles to the EU VAT legislation. On this basis they find that the VAT system in the EU at the time Ernst & Young's analysis was made generates the following biases: self-supply, impediment to privatisation, hindrance of the voluntary sector, barrier to intra-community trade and tax cascading. They identify a range of options for policy reform, including a move to a full taxation system, zero or reduced rating, a pure exemption system or adoption of the Canadian system. The key features of the EU VAT system, which gave rise to Ernst & Young's assessment, have not been changed since then.

Wassenaar and Gradus (2004) review the literature on sourcing of public sector activities around the World in a range of areas, among others cleaning services. They find that the current VAT treatment of public entities does have a significant effect on the size of contracting out by public entities; that the current VAT system facilitates own supply. They also conclude that VAT refund schemes facilitate outsourcing of public sector activities.

Wassenaar et al. (2007) conducted an interview of a representative sample of Dutch municipalities, where they asked whether the VAT hindered the decision to outsource activities, and whether the introduction of a VAT-compensation fund caused an increase in outsourcing of activities. The interview responses were matched with data on a range of characteristics of the municipalities, and the responses were analysed while controlling for municipality specific characteristics. The results were that 8 per cent of the municipalities believed that VAT had hindered outsourcing, and 4 per cent of the municipalities believed that the introduction of the VAT compensation fund had already led to outsourcing. 12 per cent of the municipalities believed that the VAT compensation fund would lead to outsourcing in the future.

A more recent study by Cnossen (2008) compares the EU VAT system with the principles of economic theory of optimal taxation. Cnossen considers a range of economic sectors, of which some of them are public. He argues for more public activities to be taxed, thereby creating a level playing field for public and private providers. Cnossen even extends the conclusion to services, such as cultural services, health care services and education services. The reason is that as private provision of competing services emerges with the continuous development of the EU economies, distortions created by a lack of a level playing field, will grow in real economic importance.

4.2. A TAXONOMY OF SERVICES

The distinction between 'core' and 'support' services is often used to distinguish between an entity's activities. Core services are, 'what the customers are demanding from the public sector'. This could be health care services, police services and education services. Support functions or services (we use the interchangeably throughout the report) are inputs that are in principle similar across the core services. This refers to, for instance, cleaning services, accountancy services, receptionist services and IT support services, cf. Table 4.1. Many support services can in principle be outsourced.

Table 4.1: Selected core services and their common support services

Sector name	Health care	Social services	Fire protection	Police
Core services (examples)	Surgery	Counselling services	Emergency response	Emergency response
	Disease treatment	Job intermediation	Fire prevention	Prevention of crime
	General practitioners	Day-care centres	Control of buildings	Issuance of allowances
	Emergency rooms			
	Disease prevention			
Support services – common for all sectors (examples)	Book keeping /accounting services	Preparation of food		Receptionist services
	Cleaning services	Facilities management / Janitor services		Human resource management services
				IT-support services

Source: Copenhagen Economics.

4.3. DIFFERENTIAL VAT TREATMENT INCREASES THE INCENTIVE TO SELF-SUPPLY

A differential VAT treatment of external and self-supplied inputs to production (support services) distorts sourcing and investment decisions, leading to a bias towards self-supply even in cases where private suppliers are more efficient. This bias occurs for private, non-profit and public sector bodies which are tax exempt or non-taxable.

The basic intuition is that the public and private bodies alike seek to minimise the cost of producing goods and services. If a public body cannot deduct input VAT, it becomes more costly for the public body to hire a firm (which has to charge VAT on its sales) than to let its own employees perform a range of activities.

Although it is true that any VAT payment is in principle just a transfer back to the State itself, the VAT payment is still an expense for the public body, which cannot deduct VAT or get a VAT-refund, and it reduces the amount of resources the entity has available to pursue its objectives. Box 4.1 contains two examples of these effects.

Box 4.1: Example of self-supply bias and investment distortions

Example of self-supply bias:

Municipality A outsources its IT department (costs 85). Municipality B keeps it in-house (costs 100).

Municipality A:
Costs $85 + 20\% \text{ VAT} = 102,50$

Municipality B:
Costs $100 + \text{no VAT}$

In this example, municipality A is economically worse off than municipality B, even though municipality A chooses a private supplier with lower net-of-VAT costs (85) than the costs of the in-house solution (100).

Example of disincentive to invest:

University U is non-taxable. It wants to build a new building. The net costs of such a building are 100. The funds of the university are limited to 100. The building cannot be erected as VAT becomes due so that the costs are 120 (100 costs + 20% VAT). The university will have to wait until the funds are 120. With every rise of the VAT rate they need more funding.

Source: KPMG AG.

The box illustrates that even though the net of VAT costs of having an external supplier are less than the net of VAT costs of self-supply, the VAT expense may be so large that the total costs of having an external supplier are larger than the total costs of self-supply.

There are several examples where the differential VAT treatment has led to, or leads to, a waste of resources. In Box 4.2 below we describe an example where German charity owned hospitals choose not to exploit economies of scale by sharing inputs, because if they establish a separate legal unit which supplies, such as catering, this unit will be taxable, increasing costs to a point where it is not economically viable.

The case also describes how the VAT discourages the hospitals from investing in equipment and buildings, but instead encourages them to enter into specific forms of lease arrangements in order to save VAT expenditure.

Box 4.2: Case study of German non-profit hospitals

This case study is from a German non-profit hospital group with a church background. The group is consisting of several hospitals and several homes for the elderly. It has more than 4,000 employees and sales of more than EUR 250 million. The group is organised in a management holding company, several hospital-operating companies (running one hospital each) and several shared service centre companies with support functions like catering or central purchasing for the group.

The VAT currently plays a major role for choosing the legal form of the group structure. For most of the support services rendered by the shared service centre companies (e.g. catering) as well as for the management service rendered by the management holding company (e.g. management of the group, accounting, human resources) 19% VAT would be due as the VAT exemption in Art. 132(1)(b) of the VAT Directive is not applicable concerning the shared service companies. The hospital-operating companies would not be able to deduct input VAT insofar they are using the services rendered to them for tax-exempt hospital services. As a consequence it is – from an economic point of view – usually not possible to form shared service centres in a hospital group as a separate legal entity.

There are certain costs of administration of the VAT. The hospitals sales have to be split-up into tax-exempt services (e.g. curative medical treatment) and their non-exempt services (e.g. convenience services like TV and telephone, other services). Often there is a legal uncertainty concerning the split-up of activities. In these cases the hospital group has to ask a tax advisor for support. Also the input VAT has to be split-up. This usually causes more work than the split-up of output services. Several employees of the accounting department are working on this for several days each year. However, all in all the VAT-related administration costs are considered as relatively low and non-material.

The VAT is not considered as the most important factor for outsourcing decisions but as a very important one once outsourcing is considered as advantageous from an economic perspective. When this is the case, the costs have to be so low that the non-deductible VAT can be compensated as a self-supply is not taxed with VAT but the supply by a third party is taxed. This leads to the consequence that often there is only outsourcing within the VAT group (shared service centres). The only chance for third party suppliers to have a competitive offer is to cut the personnel costs by paying lower wages or by saving material costs, e.g. through economies of scale.

The VAT has also an influence on investment decisions, e.g. often goods are leased because the VAT (non-deductible input VAT) becomes due on a pro-rata basis and not at once in the beginning of the useful life of the good. Moreover, the non-deductible input VAT has to be amortised. However, it was not considered that the VAT has a material effect for investments decisions.

Source: KPMG AG.

Another case which shows that VAT affects economic decisions is given in Box 4.3 below. In the UK there is a compensation mechanism which allows public health organisations to recover their VAT on many inputs. Therefore, the outsourcing decisions concerning e.g. information and communication technologies (ICT) and facilities management are not affected by VAT. However, the hospital cannot recover VAT on capital construction work and medical equipment. Therefore, investment decisions are affected by VAT considerations.

Box 4.3: A case study from a UK public health organisation

The following summary of case study is taken from a public health organisation in the UK. At present, public health bodies in the UK have in practice no choice over their legal form. However, some exceptions exist for bodies in England. Firstly, they can apply to become “foundation trusts” which have greater autonomy and control. Due to this fact, it is also expected that all English National Health Service trusts will become foundation trusts within a short timescale. Secondly, English Primary Care Trusts have to divest themselves of their “provider arms”. Some are considering alternative models including social enterprises. From this reason, VAT is not able to influence the public health organisation by choice of its legal form.

Most of the activities of the public health organisation are considered as non-business activity; and hence are out of the

scope of VAT administration. However, some incomes e.g. from catering for staff and visitors are taxable (taxed) and have to be announced in VAT returns. In relation to this the organisation incurs the costs of app. £15.000-20.000 per annum for advisers to support VAT compliance.

Outsourcing, in this health organisation, is used especially in areas such as estates, IT, medical directorates and facilities. The choice between self-supply and outsourcing is made on basis of non- VAT criteria, as input VAT can be mostly recovered. Due to this fact, public bodies are generally discouraged from using tax planning (e.g. cost-sharing scheme, VAT grouping etc.).

Turning to the effects of VAT on investments, the public health organisation assesses that VAT has impacts on how capital goods such as medical equipment are acquired. The organisation estimates that use of managed service contracts rather than standard leases (or purchases) saves approximately £500.000 per annum. As regards costs incurred in connection with solving VAT issues (e.g. advisory fees and administrative costs), they are assessed at 5 % of recoverable VAT.

Source: KPMG AG.

A final example is that of a Swedish private hospital, for which no VAT compensation scheme applies, cf. Box 4.4.

Box 4.4: A case study from a Swedish public health organisation

We undertake a case study on a private health care provider in Sweden. The health care provider is a leading healthcare provider in Europe and supplies services within several medical specialities. The provider has about 100 operating units with some 15,000 employees in the EU. Annual sales amount to approximately SEK15,500 million (1.6 billion Euro). Customers include county councils, municipalities, companies as well as public and private insurance companies that purchase healthcare services.

The core health services provided by the company are exempted from VAT, but not other services. Hence the uneven treatment of inputs and outputs for VAT purposes can create an administrative burden on handling VAT deduction from purchases. However, the overall administrative burden in this case is not excessive since they, as a rule of thumb, consider certain percentage of total purchase of goods and services as VAT deductible.

The major effect of the current VAT system through competition distortion lies in the outsourcing support function to specialized firms.

Example 1

Real estate is one example. In most cases, VAT is levied on housing rents. Real estate owners can register their property and make it exempt from VAT, but they are in general unwilling to do so, probably because this reduces their possibilities to deduct VAT from their own purchases.

This reduces the number of localization alternatives for our case study hospital when, for example, planning a new hospital. It constitutes a real cost disadvantage. One can clearly see that this has had an influence on where health service provider premises are placed. In theory, one can of course contemplate owning the buildings and internalise the problem, but real estate management is not what our case study hospital wants to focus on: as it is a health service provider, that is what it wants to concentrate on.

Example 2

Our case study hospital runs their own IT to almost 100%. In public hospitals, the picture is reverse, they have outsourced most or all. The VAT-issue is the principal explanation according to our case study interviewee.

Source: Copenhagen Economics.

In contrast, our cases from New Zealand and Australia do not point to VAT (or GST in the case of Australia) causing any self-supply bias or disincentive to invest. This is because in these countries, both public and private sector bodies put VAT on their outputs and can deduct VAT on their inputs.

4.4. DIFFERENTIAL VAT TREATMENT DISTORTS COMPETITION

Differential VAT treatment of public and private bodies with respect to whether they have to charge VAT on their supplies generates a distortion of competition. The distortion may affect the output side through reduced competitiveness of public sector entities vis-à-vis private competitors. The reason is that if e.g. a public and a private provider of waste management services compete in the same market, the public provider will have the advantage of not charging VAT to its clients. The private provider of waste management service will, on the contrary, have to add VAT to its price it charges clients. Hence, the public provider of waste management service may have a competitive advantage over the private provider of the same service. This is of course only the case when public and private providers actually are competing.

Our assessment is that this is most prevalent in the waste disposal, postal and broadcasting sectors. This is the case, as the legal questionnaire conducted as part of this study indicates that there are many EU countries where the output VAT rates are different for private and public bodies.

Differential VAT treatment of public and private sector bodies can also give public suppliers an advantage over their private or non-profit competitors in the form of being able to offer the services at lower price, because they have lower production costs.

The first case is that of a Swedish private hospital – the same one we described earlier. When the hospital invests in medical equipment, it has to pay VAT, which makes it more expensive for the hospital to supply its services – this is not the case for public hospitals, cf. Box 4.5. This effect arises only in the particular case where there is a VAT refund scheme for public bodies, but not for private firms. If there were no refund scheme, public and private hospitals would be on an equal footing, but then both public and private hospitals would have a disincentive to outsource.

Box 4.5: A case study from a Swedish private hospital

Consider again the Swedish private hospital described in Box 4.4 above. When the hospital buys for example an x-ray unit for 10 million SEK (approx. 1,068 million Euro), the company would have to pay an extra 2.5 million SEK (approx. 267,000 Euro) in VAT. Clearly, this affects their investment decisions. The company invests less to the detriment for patients and the service they can provide, including waiting time for treatment. This problem impacts the private company, not the public hospitals.

Source: *Copenhagen Economics (2010)*.

Another interesting case study is regarding a Danish non-profit organisation. In Denmark there currently is a special VAT compensation scheme for some selected non-profit organisations.¹¹⁶ The compensation scheme thus creates a level playing field for a selection of non-profit organisations and public bodies. However, our case illustrates the importance of the distortion of compe-

¹¹⁶ We provide a description of the Danish compensation scheme for non-profit organizations in chapter 4.

tion, by describing the development of the scale of the non-profit organisations' activities before and after the introduction of the compensation scheme for non-profit organisations.

It turns out that the introduction of the compensation scheme for non-profit organisations in Denmark led to a remarkable increase in the scale of activities of the non-profit organisations which we consider. This indicates that it may cause significant distortions to competition if only public bodies within tax exempt sectors can recover input VAT.

4.5. POSSIBLE OUTPUT SIDE DISTORTIONS IN POSTAL SERVICES

There are potentially important output side distortions in postal services sector due to differential VAT treatment in Member State. These distortions arise when differences in VAT treatment allows some postal services operators to be able to sell their services cheaper than other postal services operators.

One such output side distortion is in the individual mail market. The Universal Service Provider (USP) can offer certain mail services without adding VAT, which makes the USP's services cheaper than those of its competitors.

Another output side distortion arises in the business mail market where exempt or non-taxable companies, e.g. banks, cannot recover input VAT. This leads them to prefer postal service providers which are exempt because VAT is then not included in the price of postal services. Again, this favours the USP. The business mail market is important as it consists to a large degree of bulk mail, which constitutes approximately 38 per cent (32+6 in the table) of the total postal market, cf. Table 4.2.

Table 4.2: Relative size of different postal services segments, 10 EU countries, 2009

Product	Share of total postal service
Addressed advertising mail (direct mail), domestic, total	0,26
Transactional bulk mail, sorted and unsorted, domestic, total	0,32
Bulk parcels, domestic, total	0,06
Single (stamped) letter mail, domestic, first and second class, total	0,34
Single (stamped) letter mail, intra-EU first and second class, total	0,01
Single parcels, domestic, total	0,01
Total	1

Note: Average is a simple arithmetic average. Omitted countries did not provide information on information split on different customer

Source: Copenhagen Economics (2010): Main developments in the postal sector.

Together the two examples (individual mail and business (bulk) mail) of output side distortions due to different VAT treatment of operators reflects a general issue in postal services, whereby the USP carries a significant cost advantage compared to challengers. Furthermore, due to its size, any USP will often be able to operate with lower unit costs than challengers due to significant economies of scale. This further increases the cost advantage of USP's over challengers.

4.6. POSSIBLE INPUT SIDE DISTORTIONS IN POSTAL SERVICES

The exempt postal services constitute the lion's share of postal services delivered in the EU. Hence, there ought to be a significant distortion on the input side, which keeps support services in-house rather than outsource them. This is somewhat confirmed by a case study comparing the Swedish postal sector, which is taxable and thus has no distortion on the input side, with the Danish postal sector, which is largely exempt and thus experiences distortions on the input side, cf. Table 4.3. The table shows that outsourcing of support services are overwhelming in Posten AB while outsourcing seems less prevalent in Post Danmark.

Table 4.3: Outsourcing of postal services in Sweden and Denmark

Support function	Approximately what share of the following activities do you outsource?	
	Posten AB	Post Danmark
Book keeping / accounting	90 %	
Receptionist services / office support	90 %	
Cleaning services	100 %	varying degrees - would be different, if VAT conditions were normalised
Facilities management / janitor services	85 %	
Security services	95 %	varying degrees - would be different, if VAT conditions were normalised
Human resource management	40 %	
IT-support services	95 %	varying degrees - would be different, if VAT conditions were normalised
Preparation of food	100 %	
Repair work (fleet, equipment)	100 %	varying degrees - would be different, if VAT conditions were normalised
Wage management	90 %	

Source: *Copenhagen Economics (2010): Main developments in the postal sector.*

4.7. COSTS OF ADMINISTRATION, COMPLIANCE COSTS AND OTHER VAT SYSTEM EFFECTS

There are some interesting cases where VAT treatment causes public and private bodies to do things that appear to be irrational from the view of society or even that of "good business".

One variant of distortions caused by differential VAT treatment between public and private firms is the case of public-private partnerships in Germany. In Germany, the differential VAT

treatment of public and private bodies affects the extent and the form of public private partnerships. The VAT treatment of the outputs and inputs of a public private partnership can have an effect on whether the partnership is economically viable. Box 4.6 describes the German example.

Box 4.6: VAT and public-private partnerships – a case from Germany

In Germany, differential VAT treatment of the public and private sectors has become a problem for public-private partnerships, because public-private partnerships have to pay VAT, which often makes participation in public-private partnerships more expensive to the public parts than the “normal” in-house production.

The problem has been acknowledged by German politicians as evidenced by the SPD publication “Öffentlich Private Partnerschaften – Eine Zwischenbilanz im Jahre 2009”. The publication points to differential VAT treatment as one of the major barriers to more and better partnerships.

It is noteworthy that while other European economies can demonstrate a share of around 15 per cent investments through public-private partnerships, the corresponding figure for Germany is only 4 per cent. Since labour-intensive projects contain larger value added, especially if the projects contain constant flows of services provision, the projects will face larger VAT burdens and are therefore less likely to be implemented.

The publication also points to several ‘grey-zone’ attempts to avoid VAT. A standard solution found for instance in German military or prison projects is to set up an organisation within the relevant public entity, which is then practically driven by the private firm. In this way, e.g., labour costs can be paid directly by the public authority without incurring VAT payments.

Apart from creating a distortion between private provision and public self-supply, there are also distributional effects involved. Municipalities who choose public private partnerships despite the VAT differential not only minimise the use of resources (given inferior public productivity), but also transfer money to other municipalities through VAT payments. In a calculation of a concrete school project, we see that the municipality paying a total of 753,350 Euro in VAT only receive a few Euro-cents, while the remaining revenue goes to other municipalities and the general government.

Source: SPD (2009) and Copenhagen Economics.

Finally, it is costly to handle VAT in systems with multiple different VAT treatments. A case study can be found in Box 4.7.

Box 4.7: Case on administration costs in a Danish university college

Danish university colleges are subject to the Ministry of Education’s VAT refund scheme, the rules of VAT and wage taxes in the VAT law, and a range of other VAT rules and schemes applicable for special projects, where the funding parties have different rules for VAT compensation.

A medium size university college receives and processes more than 20,000 invoices each year. For each invoice it has to be decided how to apply the VAT treatment and, depending on the number of VAT rules and schemes which the invoice refers to, it will take between one and 10 minutes to assess the correct VAT treatment. An estimate of the time spent on handling VAT in a medium sized university college is that it takes at least one man-year to ensure the proper VAT treatment of invoices.

Source: Copenhagen Economics.

4.8. THE IMPORTANCE OF DIFFERENTIAL VAT TREATMENT FOR SUPPORT FUNCTIONS

It is reasonable to believe that a significant share of the public sector’s support services (e.g. IT-services, accounting services and cleaning services) could, in principle, be outsourced to the pri-

vate sector. An illustration of this point is that the private sector actually outsources these services to a large extent. For example, a recent study by ZEW (2009) found that more than 30 per cent of German firms outsource IT infrastructure management.

There is not much data on how big the share of support functions in the public sector is relative to the total amount of public sector activity. However, the data we have found indicates that support functions make up a substantial share of public spending. For example, in the UK, the Operational Efficiency Survey estimated that the public sector back office (i.e. support) functions account for around 8 per cent of public sector costs, cf. Table 4.4. Drawing on more general data sources, as done for Denmark and France, we find that support functions amount to approximately 20 per cent of public budgets. We interpret these larger figures as upper limits on how much activity can be outsourced in principle; a non-trivial part of these functions will most likely be kept in-house to meet certain production, quality and risk criteria.

Table 4.4: Differential VAT treatment affects a large share of public expenditure

	UK	Denmark	France
Support function share (%)	8	20	19
Explanation	Focus on selected support functions. Not all outsourceable functions.	Only municipalities. Large budget categories with possibly too wide coverage.	Large budget categories with possibly too wide coverage.
Source	HM Treasury (2009)	Statistics Denmark (2010)	Direction du Budget (2010)
Share definition	Per cent of total public sector running cost	Per cent of municipality running cost.	Per cent of total state running cost

Source: Copenhagen Economics based on stated sources.

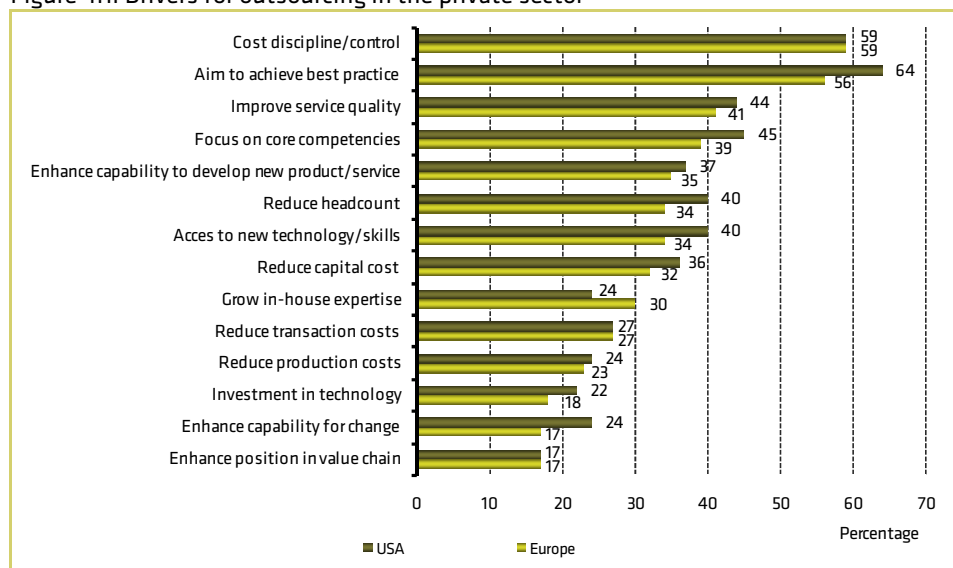
A first key reason why the private sector outsources services is that it expects real efficiency gains from outsourcing. It follows more or less from the definition of core and support services that firms rarely specialise in their own support services. For example, a car manufacturer will probably not be the best firm in the market to set up IT-systems. Therefore, it is likely that it will be cheaper for the car manufacturer to have an external supplier carry out this support service.

A second reason is that firms outsource in order to improve quality. The logic behind this is the same as for the cost motive: Firms rarely specialise in their own support services, and it is therefore likely that an external supplier is able to deliver better quality than what the firm could do on its own.

A third reason is of more strategic nature: Firms want to limit their activities to the set of activities which are their core competencies, and where they hold a competitive advantage. Figure 4.1 shows a list of important reasons for why firms choose to outsource, and how many firms in the USA and in Europe, which state the different reasons as important (calculated in shares). For example 59 per cent of respondents in both, the USA and Europe, state that cost discipline is an

important reason for outsourcing, whereas only 22 per cent of respondents in USA state that investment in technology is an important reason for outsourcing, cf. Figure 4.1. In addition, 18 per cent of European respondents mention investment in technology as an important reason for outsourcing.

Figure 4.1: Drivers for outsourcing in the private sector



Source: Kakabadse et al. (2005).

The outsourcing of support services is part of a broad tendency to ‘slice up the value chain’, so that firms break up their activities and outsource them to the supplier, who can best carry out the activities – in order to increase profits. As it is stated in a report from Centre for European Economic Research (ZEW) ‘We live in an age of outsourcing’.¹¹⁷

Because economic considerations and the desire to focus on core business areas play such an important role for private firms’ outsourcing decisions, we assess that the VAT will also make a big difference for public bodies’ decisions whether to outsource support services. This assessment is backed by the results of Wassenaar et al. (2007). In a survey of Dutch municipalities they found that introducing a VAT compensation scheme in the Netherlands would have the effect of 12 per cent more outsourcing of support services by municipalities in the longer run.

¹¹⁷ ZEW(2009).

So if outsourcing support services is desirable for public bodies, and the VAT treatment matters, what is the economic consequence of this? How much does it matter that production of support services moves from the public sector to the private sector?

In general, for private firms it seems to be the case that business service outsourcing leads to improved productivity. In ZEW (2009) an analysis on empirical firm-level data is performed, concluding that outsourcing of business services has a positive and significant effect on productivity. In the available literature the empirical estimates of efficiency gains from outsourcing in the public service differ. The literature suggests that outsourcing of support functions does lead to increased efficiency, in the range of 5 to 30 per cent.

In Udbudsrådet (2010b) – a Danish authority responsible for promoting outsourcing in the public sector – it is estimated that the EU average cost reduction from tendering is 8 per cent, which rises substantially when the amount of bidders increase, cf. Table 4.5.

Table 4.5: Cost reductions from public tendering

Number of bidders	EU Average cost reduction from tendering
Average	8%
5 to 10 bidders	Up to 20 %

Source: Udbudsrådet (2010b).

The above is an average of all types of public tenders. Support functions however are standard services with a well-functioning market with many possible bidders, indicating that the cost reduction potential is greater for support functions.

Even higher estimates are found in other studies. Paldam (2001) finds a 30 per cent cost reduction from outsourcing cleaning services in Danish public schools. Paldam (2001) notes that this estimate is in the higher end of what is typically found in the literature on public outsourcing of support functions. This literature typically finds cost reductions in the area of 25–30 per cent.

These empirical results match well with select cases from Denmark. The Danish municipalities have, to an increasing extent, been outsourcing support services to private suppliers in recent years. There are both cases where the outsourcing has been an immediate success and where the initial experiences have been poor. In Box 4.8 we present two examples of experiences of outsourcing support function in Danish municipalities in which outsourcing has been a success. One examples regards the outsourcing of wage administration, the other human resource management outsourcing. In both cases there were significant cost reductions of 12.5 and 22 per cent respectively.

Box 4.8: Case studies on the outsourcing of administration in Danish municipalities

Administration of wage office in Frederiksberg Kommune

The Danish municipality of Frederiksberg made a call for tender on the administration of the wage office. The call for tender was handled by a centralised unit, which handles all tenders in Frederiksberg. The tender called for a 3 years contract and had a contracted value of DKK 18 million (approx. Euro 2.5 million). The tender was based on “lowest price” and came with a detailed formulation of tasks and quality of the service. This was chosen to minimize problems with flow of information and interfaces between the intern administration and a new external administration partner. The municipality gave a “control bid” itself, but the task ended with being outsourced, as a private company gave the lowest bid. It is estimated that the cost savings were DKK 1.7 million (approx. Euro 0.2 million) per year, summing to DKK 5.1 million (approx. Euro 0.6 million), over the three year period of the contract. This is a cost reduction of 22 per cent. The outsourcing has also led to more efficient work procedures.

Administration of wage office and human resources (HR) in Greve Kommune

An external consultancy helped Greve Kommune assess which part of their services that could be successfully outsourced. The administration of the wage office and HR was identified as legible for outsourcing and a call for tender was produced. The contract gave detailed descriptions of each task and interviewed the intern staff responsible for wage- and HR administration. The contract ran for 5 years, with an approximate value of DKK 7 million (approx. Euro 0.9 million) per year. The cost reduction is estimated to DKK 1 million (approx. Euro 0.1 million) per year, or equivalent to 12.5 %. Furthermore the outsourcing has led to more efficient work procedures and a higher quality of work. In addition, the outsourcing has led to innovation and further digitization.

Source: Konkurrencestyrelsen (2009).

It can be argued that outsourcing stimulates innovation since private organisations tend to be more innovative than public organisations. Private organisations are more innovative, because in many sectors, innovation is necessary for private organisations to survive and grow.

Empirical studies show that competition also fosters innovation, either through more efficient processes or through improved or new products. One force driving this is that firms are looking for first-mover advantages, such as to be able to increase their profit margins for a period of time before their competitors catch up with their innovation. This is an indication that competition is good for innovation. However, if the competition is too fierce, then perhaps the individual firm will not expect to be able to make enough earnings on an innovation before its competitors catch up – so there is also an argument for the case that too much competition may hinder innovation. Much empirical research in fact documents that either too little or too much competition is bad for innovation, while a certain amount of competition is good, cf. Table 4.6.

Table 4.6: How is innovation affected by competition?

Study	Results
Levin, R, Cohen, W, Mower, D. (1985)	Inverted U-shaped correlation. Most innovations take place when a couple of market players share at least half the market.
Aghion, P., Bloom, N., Blundell, R., Griffith, R., Howitt, P. (2004)	Inverted U-shaped correlation between competition and innovation.
Blundel, R., Griffith, R., van Reenen, J. (1999)	More innovation in sectors with competition.
Geroski, P. A. (1990)	60% of the variation in innovation is explained by competition.
Jaumotte, F., Pain, N. (2005)	Less market regulation (OECD's PMR indicator) leads to increases in investments in R&D.

Note: An inverted U-shaped correlation means that innovation first increases in increased competition but that it flattens out and decreases at a certain level of competition.

Source: Studies in table.

To judge in which type of sectors and functions outsourcing may boost innovation through increased competition, we look at which sectors and functions are innovative to begin with. If a sector with a high degree of competition today still has a low degree of innovation, then we conclude that the sector in itself is not innovative. An example of such a sector is accountancy, where outsourcing is not likely to bring about dynamic effects in the form of innovations. An instance of the opposite is software and IT services, where innovation intensity is high. If outsourcing would have a significant impact on market size or competition intensity on such a market, outsourcing might promote innovation in these sectors.

An innovation index constructed to measure innovation in different sectors in the UK suggests that the innovation intensity varies considerably between the support function sectors. Innovation is measured in three separate dimensions:

- The firms' ability to access innovation (develop ideas or obtain them from elsewhere)
- To build innovation (turn ideas into products)
- To commercialise innovation (use innovative goods or services to make money)

Indeed, innovation is low in sectors where we would not expect increased competition to stimulate innovation, e.g. accounting and legal services, while innovation is more intense in other sectors, such as software and IT-services, cf. Table 4.7.

Table 4.7: Innovation activity in support function sectors

Sector	Degree of competition	Accessing innovation	Building innovation	Commercialising innovation
Consultancy services	High	High	High	High
Software & IT services	High	High	High	High
Architectural services	High	Medium	Medium	Medium
Legal services	High	Low	Low	Medium
Accountancy	High	Low	Low	Low

Note: Based on a questionnaire to 1500 businesses. The score is in relation to the most innovative sectors.

Source: Nesta (2009).

It thus seems to be the case that innovation in a range of support services will benefit from more competition, e.g. by removing the barrier which VAT can be to outsourcing of support services, because both dynamic gains and one-off static allocated gains may be reaped. However, competition within these support is already high.

4.9. THE IMPORTANCE OF DIFFERENTIAL VAT TREATMENT FOR CORE SERVICES

Wassenaar and Gradus (2004) summarise the amount of refuse collection contracted out to the private sector in the 1990's for eight member states of the EU. They find that countries with a level playing field with respect to public sector VAT tend to have a large share of private refuse collection, cf. Table 4.8. The table also shows that e.g. in Sweden public and private suppliers of refuse collection are treated equally with respect to VAT, and in this country, 64 per cent of refuse collection is carried out by private firms. Out of the eight EU Member States in the table, the four countries with most outsourcing also have a level playing field for private and public suppliers with respect to the treatment of VAT.

Table 4.8: Contracted out refuse collection in 8 Member States of the EU

Member state	Per cent of private refuse collection (year of data collection)	Level playing field with respect to VAT (in year of data collection)
United Kingdom	29 (1994)	Yes ^{b)}
Ireland	39 (1995)	No
Netherlands	40 (1998)	No ^{a)}
Italy	46 (1998)	No
Sweden	64 (1996)	Yes ^{b)}
Norway ^{d)}	73 (1997)	Yes ^{c)}
Denmark	85 (1997)	Yes ^{c)}
Finland ^{d)}	92 (1996)	Yes ^{b)}

Note: a) A VAT refund scheme is available from 2003 onwards.

b) The level playing field is achieved by the introduction of a VAT refund scheme.

c) The level playing field is achieved by considering the collection of household refuse as a taxable activity.

d) This number is only available for the Finnish county Uudenmaan Lääni.

e) Although Norway is not a member state of the European Union, because of its membership of the European Economic Area agreement it applies the VAT rules of the European Union.

Source: Wassenaar and Gradus (2004).

This does not per se prove that VAT is important to outsourcing of public core services. The reason is that there may be other factors, which matter for the share of outsourcing of refuse collection, but which happen to coincide with whether a country has a level playing field with respect to VAT. However, on the basis of Table 4.8 it is difficult to disregard VAT as something that affects outsourcing of public core services.

Just as it were the case for public support services, there is reason to believe that there are major productivity gains to be realised from outsourcing public core services. Wassenaar and Gradus (2004) review several studies on the potential for cost savings by the public sector from contracting out waste disposal to the private sector, c.f. Table 4.9. Many of the estimates suggest that a 20 per cent cost reduction may not be unrealistic.

Table 4.9: Cost savings from contracting out waste disposal to the private sector

Country	Savings in average costs of due to contracting out waste disposal to the private sector	Reference in Wassenaar & Gradus (2004)
USA	Lower	Kitchen (1976)
Switzerland	20% reduction	Pomerehene and Frey (1977)
USA	7% to 30% reduction	Stevens (1978)
UK	22% reduction	Domberger et al. (1986)
Netherlands	15%-20% reduction	Dijkgraaf and Gradus (2003)
Sweden	about 15%-20% reduction	Ohlsson (1998)
Ireland	45% reduction	Reeves and Barrow (2000)

Source: Wassenaar and Gradus (2004).

Swedish experiences also indicate that significant cost savings can be achieved by outsourcing public core services, c.f. Box 4.9.

Box 4.9: Swedish experiences with outsourcing

Swedish public procurement accounts for at least €50 billion per annum, including manufactured goods as well as services. There are a number of reports describing the effects of public procurement by municipalities, whose procurement amounts to €14 billion per annum, including procurement of property services, waste disposal, child care and care for the elderly. Many of these studies report cost savings of 10-15 per cent.

An auxiliary effect of procurement is that the procurers often reduce their own production costs. There are two reasons for this; firstly, the process of defining what needs to be procured often results in an awareness of unnecessary expenses which may then be cut, and secondly a tendering procedure may drive the municipalities own entities to reduce their costs in order to be able to compete with private businesses.

A telling example of the potential benefits of outsourcing through tendering is the procurement of waste disposal services in the municipality of Täby. During the late nineties, competition in the waste disposal rose due to several market entries. The company that initially held the whole market, called Sellbergs, still provides the largest share of the services. However, two other companies, Miljöservice and Skafab, managed to enter the market by offering the best bids on parts of the services procured by the municipality. The effect of the procurement has been a 30 per cent cost saving. It is also noticeable that the initial contractor, Sellbergs, has reduced its price considerably after the entrance of the competitors.

Another example of beneficial effects from outsourcing is the effects of increasing private sector care for the elderly, which has been shown to be beneficial. A meta study of six evaluations shows that cost savings were achieved in all six evaluations, although one evaluation suggests that cost savings are diminishing over time. Simultaneously, eleven evaluations of the quality of care unanimously showed that the private business responsible for the care met the municipalities' quality demands. Two evaluations even identified improving quality.

Source: Bergman (2008), Offentlig upphandling och offentliga inköp Omfattning och sammansättning, De Nordiske Konkurrensemyndigheter, (1998), Konkurrensetestning av kommunal virksomhet, p.25, 37 and 168.

Some public core services are very difficult to outsource for purely political reasons. For example, it may be difficult to imagine private firms designing laws and performing the executive functions of government. It is also difficult to imagine the police or the Supreme Court being private firms with a mandate to keep law and order and interpret the law.

It is an important issue if a public contractor considers outsourcing but fears that private producers will provide sub-optimal quality. This may induce politicians to maintain full control over production rather than outsourcing the core service to a private supplier.

The public contractor has an option of laying down quality requirements for the private producer in rigid contracts. However, it may be difficult to define and fully describe the quality of service in a contract. Change of producers and the preparation of tender material can be costly which introduces a transaction cost that decreases the gains from outsourcing. If the service being outsourced is of a complex nature, it can be difficult to monitor the quality of work, especially in the presence of the above arguments for erosion of quality. This type of monitoring also increases transaction costs.¹¹⁸

A Danish study shows that these concerns from decision makers' point of view about to decide whether or not to outsource a public service may be important, c.f. Table 4.10.¹¹⁹ The table summarises the findings from the study, assessing which barriers the public decision makers pointed out as important when deciding on whether or not to outsource a service. The four categories of barriers are identified by the authors, while the assessments of their effects are based on literature reviews and surveys among decision makers.

Table 4.10: Perceived barriers to outsourcing in Danish municipalities

Barrier	Assessment of the effect on outsourcing
Attitudinal	Significant
Economical	Significant
Regulatory	Medium
Organisational	Medium

Note: "Attitudinal" describes barriers, where the decision maker chooses not to outsource a service, as they have a negative attitude toward outsourcing that particular service. The analysis emphasise that this is in general more based on personal bad experiences than ideology.

Source: Udbudsrådet (2010a).

4.10. SME IMPACT

Before it is possible to assess the impact of the VAT system on SMEs, it is necessary to define an SME. According to Eurostat, an SME has no more than 249 employed and turnover is less than EUR 50 million, cf. Box 4.10. When we define SMEs in this way it does not mean that once a firm has more than 249 employees, it will be completely differently affected. The effects we are describing can be relevant for larger firms as well. The purpose of the definition is just to give a flavour of what an SME is. Furthermore, not all SMEs will be affected in a homogenous manner. The effect of VAT treatment might differ across firm sizes, industries etc.

¹¹⁸ Bel et. Al(2009) and Letho(2005).

¹¹⁹ Udbudsrådet (2010a).

Box 4.10: EUROSTAT definition of SME

SMEs are defined by the European Commission as having less than 250 persons employed. They should also have an annual turnover of up to EUR 50 million, or a balance sheet total of no more than EUR 43 million.

Source: EUROSTAT

European SMEs are mostly found in the industry of business services and to a lesser extent in hospitals, cf. Table 4.11. In Table 4.11 second column, the share of SMEs within each sector is calculated by dividing the total number of SMEs in each sector by corresponding total number of businesses in the sector. Whereas in the third column, we have calculated the share of the economy wide number of SMEs within each sector by dividing the number of SMEs in each sector by that of EU's total SMEs size.

Out of the total amount of SMEs in Europe 65.9 per cent are found in business services. Whereas only 0.07 per cent of all European SMEs work in broadcasting. Concerning the share of SMEs active within a sector, most industries are characterized by a very large undergrowth of SMEs. This is seen in e.g. the waste disposal sector, where 99.15 per cent of firms are SMEs. On the contrary, the share of SMEs in broadcasting and public administration are only 48.12 per cent and 39.52 per cent. Even though the SME's are very prevalent, compared to bigger companies, their share of employment is smaller.

Table 4.11: Shares of SMEs

	Share of SMEs out of total number of firms within the sector	Share of SMEs out of total number of firms in the total economy
Postal Services	99,29%	0,54%
Broadcasting	48,12%	0,07%
Business Services	99,77%	65,9%
Waste disposal	99,15%	0,8%
Public administration	39,52%	0,04%
Education	97,30%	1,61%
Hospitals	99,72%	7,01%
Culture Services	99,51%	1,77%

Note: The SME shares for Postal Services, Broadcasting and Business Services are based on Eurostat data. Waste disposal, Education, Public Administration, Education, Hospitals and Culture Services are based on statistics from Statistics of Denmark. All categories in this report are based on aggregation of different NACE 2.0 sub-categories. Postal Service encompass 'Postal and courier activities', Broadcasting Services encompass 'Programming and broadcasting activities', Business Services encompass 'Computer programming, consultancy and related activities', 'Information service activities', 'Real estate activities', 'Professional, scientific and technical activities' and 'Administrative and support activities'. Waste disposal includes 'Water supply, sewage, waste management and remediation activities', Public administration encompass 'Public administration and defence; compulsory social security'. Education encompass 'Education'. Hospital encompass 'Human health and social work activities'. Culture services encompass 'Arts, entertainment and recreation'.

Source: Eurostat and Statistics Denmark (GF3).

The postal services sector has historically been dominated, and still is, by national companies. There are not many SMEs in the postal sector, so the SME impact is not likely to have a large macroeconomic significance. However, the VAT distortion in the postal services sector greatly affects the SMEs that operate or might operate in the sector. This is because the VAT exemptions are often given to large universal service operators, which sometimes receive a VAT exemption on all their activities. This makes it very difficult for SMEs to enter the market and become competitive.

The broadcasting industry is often dominated by a few large enterprises in each country. Broadcasting companies can be private, but are often state sponsored broadcasting enterprises, for instance the BBC. They are often national enterprises, but cross border competition is rising. The industry is characterized by economies of scale on the output side and spectrum scarcity when broadcasting is analogue.¹²⁰ The capital equipment required to produce and distribute e.g. television programs is quite costly, but the marginal cost associated with supplying one more household with access to television is very low. Television shows are non-rivaling in nature, that is to

¹²⁰ Weeds, Helen (2007). The economics of broadcasting in the digital age: Full Research Report.

say that if your neighbour watches the news you are also able to watch the news. The non-rivaling characteristic implies that once a television program has been made, the consumption is only limited by the distribution. A production structure like this encourages large scale production on the output side. There is differential VAT treatment of public and private broadcasting bodies in only a few countries, and the fundamental economics of the sector imply a smaller role for SMEs than in other sectors. Therefore, we assess that VAT does not affect SMEs so much in broadcasting as in other sectors. The effect that arises for SMEs is a barrier to entry, because differential VAT makes it difficult to achieve a minimum efficient scale.

The business services contains a plethora of different firms in different subsectors. These firms all supply services to business, whether it is in real estate, computer programming or consultancy. Common to many of them is that they compete with equivalent in-house services of potential customers. Since 66 per cent of all SMEs are in business services, the input side distortion can be expected to have a great impact on business services, and on SMEs.

Waste disposal is typically collected by garbage companies and processed in waste management plants. Waste management plants can be everything from high technological incineration plants to simple landfills. The collection of garbage is very labour intensive, but not very capital intensive. The processing can be very capital intensive. In Europe incineration and recycling has become increasingly widespread, due to legislation and environmental concerns.¹²¹ The use of the least capital extensive disposal method, landfill, has declined rapidly over the last decades even though the decline is very uneven. The North-western European countries are characterized by using more capital intensive waste management plants, than Southern and Eastern Europe. In these areas landfills are still prevalent. The collection side of waste removal can be handled by either private or public companies. Just as in other business areas, VATs exemption can create a distortion. A VAT exempt municipality will have an incentive to conduct garbage collection internally instead of hiring a private company. A reduction in the VAT distortion is, however, not guaranteed to lure SMEs into building recycling or incineration plants. Plants of the required magnitude are often build by, or in conjunction with, governmental organizations. In summary, the waste and sewage disposal sector is relatively small, but the sector contains a disproportionately large share of SMEs. These can be found mainly in waste disposal, where they compete with public in-house production, which is favoured by VAT exemptions or non-taxability of public bodies.

Public administration cover a wide variety of fields and support other public institutions and citizens. On the output side it seems unlikely that SMEs would be able to fill in the role of public administration. On the input side public administration resembles many other large enterprises.

¹²¹ Generation and treatment of municipal waste, EUROSTAT, 2011

It need extensive IT-infrastructure, office space and supplies and a variety of other services. Much of this demand can either be supplied internally or externally.

The current VAT rules imply only little differential treatment of public and private bodies, because the non-taxability of public bodies is generally matched by exemptions of private bodies. Hence the SME impact of the current VAT rules in the education sector is likely not large. The same can be concluded for health care.

Culture services include libraries, theatres, sport arenas and so forth. Often, these services are supplied by municipalities. In terms of employment, most of the workplaces employs less than 250. If no VAT exemption existed it is possible, that a municipality would choose to run its library and so forth by inviting tenders.

In some sectors the exemptions may benefit certain groups of SMEs. For instance, in health care many general practitioners are SMEs. These benefit from exemption because prices are kept down relative to other kinds of services which are not exempt.

In summary, the current VAT rules have a major negative impact on SMEs, because most European SMEs are in the business services sector, which competes with public sector self-supply. Public sector self-supply is encouraged by the current VAT rules. However, SMEs in some sector such as health (e.g. General Practitioners) may not necessarily be affected negatively. This is due to the fact that SMEs activities in this sector are tax exempt.

4.11. IMPACT ON CHARITIES

4.11.1. Charity Foundations in EU

Charities and public benefit foundations play an important role in the European economy as they employ a relative large share of the workforce and perform significant social welfare and other functions many of which supplement or replace provision of these functions by the state. Furthermore, the VAT systems in EU treat charities very differently. It is therefore relevant to look at how one defines a charity and at the different kind of VAT treatments that charities face across the EU, either being taxable, out of scope of VAT or exempt. Below we will focus on what it means to be a charity in Europe and on the treatment they face in regards to VAT. From here on reference is made to “charities”. This term is taken to include public benefit foundations as well as charitable organisations providing services either outside the scope of VAT or that are exempt.

As charities constitute an important part of the European economy, it is relevant to look at what a charity is. A charity is a public benefit body which is either funded by donations from the pub-

lic, grants from the State, income from permitted taxable supplies, or, as in the case of charity foundations, primarily from income and gains from investment assets.

According to the European Foundation Centre there is no common European legal definition of the term charity, as it can mean something very different from one country to another. Nevertheless there is across Europe at least a generally understood and accepted concept of what public benefit foundations are:

“Public benefit foundations are independent, separately-constituted non-profit bodies with their own established and reliable source of income, usually but not exclusively from an endowment, and their own governing board. They distribute their financial resources for educational, cultural, religious, social or other public benefit purposes, either by supporting associations, charities, educational institutions or individuals, or by operating their own programmes”¹²²

Charities are purpose driven: They focus on areas ranging from the environment, social services, health and education, to science, research, heritage, arts and culture and apply their income to these areas either by supporting associations, other charities, educational institutions or individuals, or by operating their own programmes. (Whether the charities work locally, regionally and internationally they work to improve the lives of citizens and to achieve their objectives.)

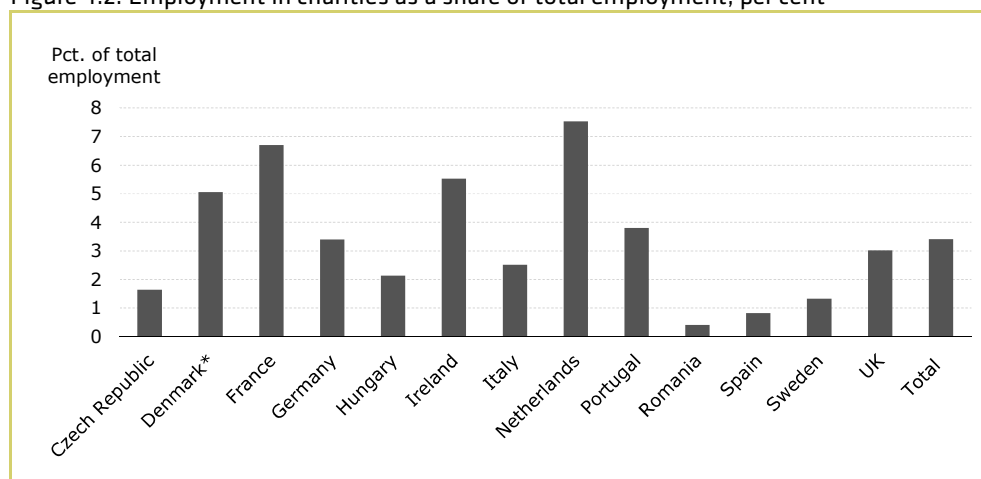
Each charity in the EU has an income, which allows it to plan and carry out work over a longer term. This income typically originates from various different sources, such as income/contribution from the public sector/state support, philanthropy (volunteering can be included and treated as a form of philanthropy), fundraising activities, legacies, grants and donation, revenue from activities, investments, corporate donations, voluntary organisations, contributions, membership fees and charges.

4.11.2. The economic role of charities

Charities play an important role in the European economy, as they employ a relatively large share of the workforce. Figure 4.2 below shows the number of people employed by charities, as a percentage of the total employment, in selected European countries. It is found to vary from country to country, but on average charities employ more than 3 per cent of the total number of people employed in the selected European countries, and as much as 5-7.5 per cent in countries as Denmark, France, Ireland and the Netherlands. Charities also have a great number of volunteers, who work for free to help them achieve the charity goals. There are some uncertainties about the numbers of volunteers in Europe, but it is to be expected, that the role charities play in the European economy is even bigger if you also count the number of people working for free.

¹²² Source: EFC Legal and Fiscal Country Profiles: Introduction and Comparative Highlights

Figure 4.2: Employment in charities as a share of total employment, per cent



Note: The data pertains to different years in the period 2004-2010.
Source: ECCVAT.

4.11.3. VAT treatment of charities in the EU

When looking at the VAT system in EU, there are broadly speaking four types of charity which face different treatment: Fundraising charities, Grant making charities, Service providing charities and Hybrid charities.

Fundraising charities are charities which derive their income from donations and grants and sometimes from their own investments. These charities usually provide services at no charge to the service users and their charities' services are therefore outside the scope of VAT, because no consideration is paid by the service user for the service.

Grant making charities are charities whose activities consist of funding particular classes of beneficiaries or other bodies carrying on specified activities benefiting society by making grants, either to individual people, for example to relief financial hardship, or to help students with the cost of their education, or to other public benefit organisations for example to fund research at a university. As with the fundraising charities these charities' activities are outside the scope of VAT, because no consideration is paid by the service user for a service.

Service providing charities are charities which provide and charge for services. Some provides services for which the service user engages and pays the charity directly, while others provide services as agents of the state, with the state paying the charity to deliver the service to the service user. These charities can be providers of exempt services, taxable services and a mixture of exempt and taxable services. Exempt services that are commonly provided by charities include: social welfare care or medical treatment provided by a qualifying institution like a hospital, hospice

or nursing home, health services provided by registered health professionals, education, vocational training and other connected services provided by an eligible body like a school, college, university or non-profit making charity, physical education and sports activities, and admission (by eligible cultural bodies) to cultural events such as visits to museums, art exhibitions, zoos and certain performances.

Hybrid charities are charities – of which there are a large number – whose activities or services consist of a mixture of those in Fundraising, Grant making and Service providing charities.

The reason why these different kind of charities face different kind of VAT treatment is that they provide different services. These services are either taxable, out of the scope of VAT or exempt. For all European charities, their services are exempt when the charities perform services that are within the categories specified as exempt in the VAT Directive, such as education, vocational training, health and welfare, cultural services, sports and recreation, subscriptions cost sharing and cost sharing and fund raising events. Where the conditions are met, exemption is mandatory except where an option is specifically allowed (e.g. real estate). On top of that some countries have additional exemptions, as in the Netherlands where services by non-commercial entities are also exempted. In Sweden, childcare and child education, charity, contribution to education and teaching, support to scientific research, support to Scandinavian collaboration and support to the Swedish military are exempt from VAT. In the UK, charities also benefit significantly from the transitional zero rates (some of which are aimed at consumers generally, e.g. food and housing, and some of which are targeted at the inputs or outputs of charities specifically to benefit those they serve, e.g. specialised aids for the disabled and defined types of medical equipment). In Denmark, charitable organisations etc. approved in accordance with the Tax Assessment Act can apply for part compensation for VAT depending on the self-financing ratio. It is estimated that approximately 66 per cent of the said amount of €33 million is compensated.

Table 4.12 shows the amount of non-recoverable VAT paid by charities on their expenditure on goods and services bought in to perform their activities in selected EU countries:

Table 4.12: VAT paid in selected EU countries by charities

Country	VAT paid, million Euro	VAT paid share of GDP	EU27 Total, million Euro
Denmark	33	0.014%	
Ireland	78	0.048%	
Sweden	156	0.187%	
UK	1,370	0.014%	
Total	1,637	0.048%	5,824

Note: The total amount of irrecoverable VAT, Euro 5,824 million is estimated on the basis of the information for the 4 countries – Denmark, Ireland, Sweden and United Kingdom. We assume that the amount of irrecoverable VAT as a share of GDP at the European level is equal to the average for the four countries.

Source: ECCVAT charity/non-profit organisations statistics.

We do not have sufficient data to put the VAT payments by charities into proper perspective. We do not know the value added created by the charities, and cannot assess how the current VAT system affects the charities – whether they are generally put at a disadvantage vis-a-vis the public or private sector and how big the possible disadvantage. Furthermore, we do not know enough about the distribution of charities' activities to assess how much they benefit or lose from the exemptions. The little information we have indicates that health, education, social work and culture are the major activity areas. The exemptions in the VAT Directive play a large role in these areas. Thus, the current VAT system can be expected to have a great impact on the charities. They benefit from not having to charge VAT when they sell services to the public sector, because they can provide services cheaper than non-exempt private bodies, and because VAT does not cause self-supply bias against supplies from charities. On the other hand, charities often lose from not being able to recover input VAT thereby increasing the fee they must charge to cover their cost base which puts them at a disadvantage to non-exempt bodies.

Besides the insufficiency of the data, an analysis of the impact of VAT on charities is made difficult by the fundamental differences in the objectives of the charities as compared to the private sector. Charities' objective is not to make profit, and the costs and scale of their operations depend to some extent upon their ability to attract donations and money from firms and consumers. Furthermore, activities of some charities substitute for public services and save public sector money. The effect of the VAT system on charities thus depends on how the VAT system affects the motivation of donors and volunteers; and the impact on the public budgets depend on how much charities' services substitute for public sector services thereby saving money. That type of analysis is outside the scope of this study.

Chapter 5 POSSIBLE SOLUTIONS

In the study, we have examined the stipulations of the VAT Directive on the taxation of the public sector and the transposition into national law (current EU VAT law). We have also described the compensation or refund schemes applied in several Member States as well as in Canada and the full taxation systems in certain OECD countries e.g. in Australia and New Zealand.

The conclusion was that the current EU VAT law has a lot of significant disadvantages. Several of these disadvantages do not appear in the alternative systems currently applied in certain EU Member States and OECD countries (compensation systems, full taxation). However, these solutions have been designed for single countries with their specific legal and tax systems. Also, the systems in OECD countries are independent from the common EU VAT system. Thus, a complete adoption of a currently applied alternative system does seem favourable, but not plausible.

Realising this we have developed possible solutions for the current problems with the taxation of the public sector. Our approach was to find 'ideal' solutions in a way that the disadvantages described in our comments about currently applied systems should be reduced as much as possible. Additionally, we have analysed if there are any other solutions not mentioned before. Some of these other solutions are actually variations of the above described systems and will therefore be described in their context.

The following solutions are analysed in this chapter:

- Full taxation option in its alternative that a liability to tax requires supplies against consideration
- Refund system
- The option according to which the special rules related to public bodies (Article 13 of the VAT Directive) would be deleted, while keeping a number of exemptions in the public interest

In this chapter we analyse the economic impact on the EU of adopting these solutions. In a previous study, Copenhagen Economics and KPMG AG (2011) analysed the economic impact of the following models:

- Full taxation
- Refund system
- Treated as taxable persons (public bodies treated as taxable persons as a rule, with certain exemptions)
- Treated as taxable persons with an option to tax (public bodies treated as taxable persons as a rule, with certain exemptions and an option to tax for exempt taxable persons)

In this chapter we also explain the differences between the solution models analysed in the previous study and in this study, and we describe the differences in results.

5.1. FULL TAXATION

5.1.1. Introduction

In this subsection we describe the main characteristics of a full taxation system. We also discuss how the impacts on tax revenue could be compensated.

5.1.2. General characteristics

The main change introduced with a full taxation system would be a fundamental alteration of the taxation of output supplies. All supplies within the public sector which are currently treated as non-taxable (Art. 13 of the VAT Directive) or tax-exempt (Art. 132 of the VAT Directive) in the future would be treated as taxable and non-exempt. Special rules leaving discretionary power to the Member States (e.g. Art. 133, 371 ff. of the VAT Directive) would be deleted if they were concerning the public sector.

Generally, the full taxation model can be introduced in two basic modifications.¹²³ In the first one, all supplies of public bodies are taxed regardless of whether a consideration is provided or not (e.g. also on supplies of police, fire brigades or charities which are only receiving donations).¹²⁴ In the second one, the output VAT is applied to supplies only if an explicit consideration is charged.¹²⁵ Supplies funded, e.g. general public subsidies or other comparable sources, thus remain outside the scope of the VAT.¹²⁶ These other types of costs, which we cannot model, will make it difficult to compare the solution with the other solutions we present, which do not involve fundamental changes in the EU VAT system. In this study we focus on full taxation of supplies delivered for consideration, whereas supplies delivered without a consideration remain non-taxable.

¹²³ For more details about possible approaches see M.Aujean, P.Jenkins, S.Poddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No.4, July/August 1999, pg. 146 et seqq.

¹²⁴ M.Aujean, P.Jenkins, S.Poddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No.4, July/August 1999, pg. 147

¹²⁵ Pierre-Pascal Gendor, "Value-Added Tax Treatment of Public Sector Bodies and Non-Profit Organisations: A Developing Country Perspective", ITP Paper 0514, July 2005, pg. 33

¹²⁶ This could be solved by treating supplies not for consideration as deemed supplies, however doing so would introduce costs of compliance and administrative burdens which are much larger than those associated with the other models we consider.

Nevertheless, either way full taxation of the output supplies would lead, according to the VAT Directive, automatically to the possibility to deduct the input VAT as regards the input side, to the extent that the output supplies linked to the inputs are delivered against a consideration.

5.1.3. Limitation to supplies for consideration

In a system of full taxation of supplies for consideration, in principle, all supplies for remuneration would be taxed. Differentiations whether a public entity is acting based on public law or whether a hospital or museum is fulfilling the requirements of a tax-exemption would not be necessary. The assessment base could be calculated according to the consideration. Also, for the purposes of the calculation of input VAT it would, in principle, not be necessary to split up deductible and non-deductible input VAT anymore (if the inputs are linked to taxable outputs respectively outputs carried out against a consideration).

In the following, we discuss the advantages and disadvantages of the introduction of a full taxation system for supplies for consideration.

5.1.4. Our interpretation of the full taxation option in regards of economic modelling

The two subsections above, 5.1.2. General characteristics and 5.1.3. Limitation to supplies for consideration, described the real world working of the full taxation model. This following subsection describes how we operationalize the description of the full taxation model, so that, we can estimate the effects in our economic model.

For purposes of using the economic model to estimate the effects of the full taxation option, we assume that all the economic sectors in the model economy become taxable and non-exempt, to the extent they are rendered for a consideration. We assume that all current national reduced rates, super-reduced rates and zero-rates are removed and replaced. In variant 1 we replace them by the national standard VAT rate. In variant 2, we replace VAT rates for broadcasting, cultural services, education, health care, postal services and waste disposal by the lowest national reduced rate (must be at least 5%) or – in the case there is no current reduced rate (Denmark) – by 5%. Some differential VAT treatment thus remains in the EU27 economy because of differences in the national VAT rates. We assume that public administration services are supplied entirely without consideration, so the VAT treatment of public administration does not change.

We perform a quantitative analysis of the effects of implementing the full taxation model by assuming that the resulting VAT system can be described by the VAT rates shown in the tables 6.1-6.3 (see Appendix to this report), for services delivered against a consideration (except for public administration, where we assume all is delivered without consideration). Note that costs of input VAT refer to supplies from a taxable and non-exempt sector

An example of the VAT treatment under full taxation variant 1, is broadcasting services in Germany, which become taxable under the standard rate. So when a public sector broadcasting firm in Germany sells services, it charges 19% VAT (c.f. Table 6.2, row 3, column 10) . When the public sector broadcasting firm in Germany buys services, it can recover VAT, so the cost of input VAT is zero (c.f. Table 6.3, row 2, column 10). This is in contrast to the baseline or present situation, where public broadcasting in Germany is non-taxable, meaning that the sector does not charge VAT and cannot recover input VAT.

An example of the VAT treatment under full taxation

To clarify the above description of the full taxation solution, we have below illustrated how this solution affects VAT rates on selected sectors in Germany, cf. Table 5.1.

Table 5.1: Current output VAT rates and VAT rates under full taxation in Germany, provided the services are delivered for consideration

	Current VAT rate charged on output	VAT rate charged under full taxation variant 1	VAT rate charged under full taxation variant 2
Private produced waste disposal	19 %	19 %	7%
Public produced waste disposal	0 %	19 %	7%
Private hospital services	0 %	19 %	7%
Public hospital services	0 %	19 %	7%

Source: Copenhagen Economics and KPMG AG (2011).

We do not have precise information about the share of output from our six modelled core services that are provided for consideration and not for consideration, but we have collected some information about the shares of public services rendered for consideration, c.f. chapter 2.4. We assume that the private core services supply the same share of services for consideration as the public sector does. The reason for this assumption is that many private health care and education services are delivered by charitable or non-profit organizations. We do not know how much of services supplied by these organizations are delivered against a consideration, but we assume that it is similar to the public sector. This assumption is important. We made sensitivity analyses, where we alternatively assumed that all private sector services were delivered against a consideration. In this case, the full taxation will actually introduce an economic distortion between public sector and private sector (and non-profit) bodies. This is because currently the non-taxability of public bodies in the areas of health care, education and cultural services are often matched by exemptions for private bodies. If we assume that all private services are rendered for consideration, and hence have to charge VAT in the full taxation option, whereas public services remain partly non-taxable, because their supplies are partly delivered without consideration, we put private services at a competitive disadvantage. In our sensitivity analysis, this new disadvantage eliminated most of the economic gains from the full taxation model.

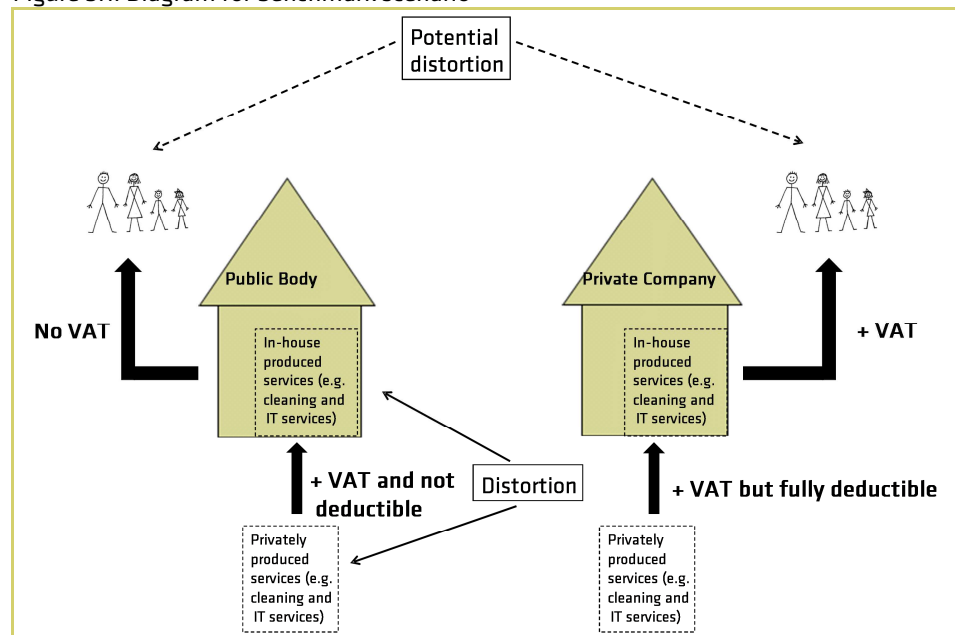
5.1.5. Impacts of full taxation

In this subsection we estimate the economic impact on the EU 27 economy of the full taxation option using our economic model.

Introducing the full taxation model means increasing the VAT burden on outputs significantly for suppliers of previously non-taxable or exempt services. In the case of mainly broadcasting, postal services and waste and sewage disposal, this removes some differential VAT treatment between public and private services and between – currently - exempt and non-exempt postal service providers. We assume that public and private and exempt and non-exempt suppliers are relatively close substitutes. If the price of a supplier increases by 1 per cent, then the demand decreases by approximately 6 per cent. A large part of the demand shifts to other suppliers.

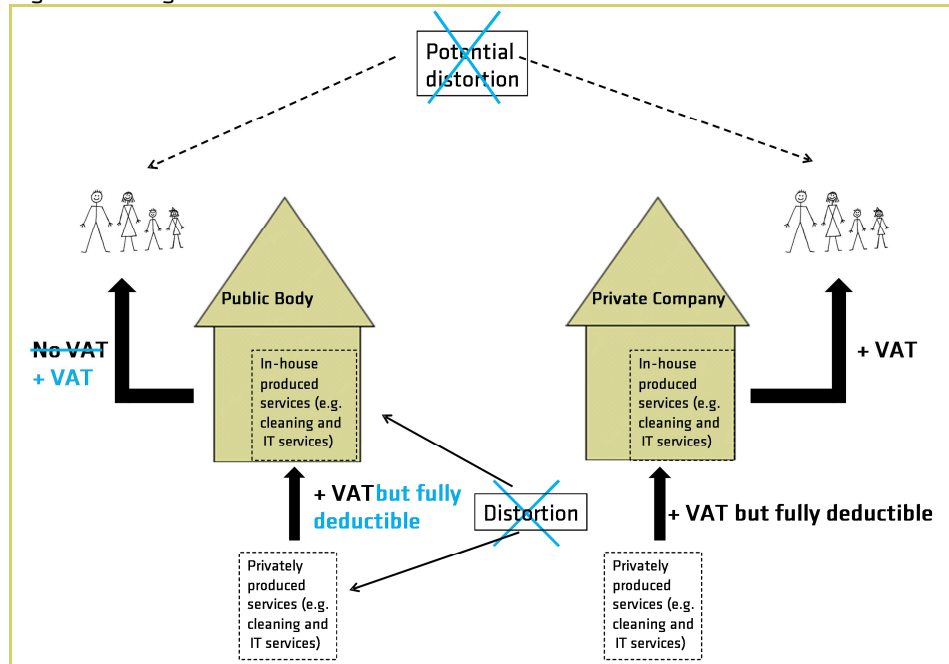
Furthermore, the cost of input VAT is reduced for the previously non-taxable or exempt services. This reduces the input side distortion to the extent that the previously non-taxable or exempt bodies supply services against a consideration. If, for example, a service is delivered fully against consideration, input VAT will not be a cost, and the choice between self-supply and outsourcing is no longer distorted by VAT. The removal of the two distortions is illustrated in Figure 5.1 and Figure 5.2.

Figure 5.1: Diagram for benchmark scenario



Source: Copenhagen Economics.

Figure 5.2: Diagram for full taxation



Source: Copenhagen Economics.

In Table 5.2 we show the results of estimating the impacts of the full taxation option, using the economic model. The table contains four columns. The first two columns show the impacts of the full taxation option, variants 1 and 2, assuming a high degree of substitution between public and private core services. The last two columns show the impact of the full taxation option, variants 1 and 2, assuming that public and private core services are not substitutes. The rows show different aspects of the impact. The first row shows the GDP impact, which summarizes the pecuniary side of the impact on economic value creation in the EU27. The table shows that the full taxation option increases GDP by 0.34 per cent, if we assume a high degree of substitution between public and private core services. If we assume no substitution between public and private core services, the GDP-impact drops dramatically to about 0.09 per cent. The next two rows illustrate how the full taxation option affects the competition between public and private core services. In the case where we assume a high degree of substitution between public and private core services, we see an increase in private core services share of the economy, and a decline of public core services' share of the economy. In the case where we assume no substitution between public and private core services, they are affected more or less identically by the full taxation option. Rows four and five illustrate how the full taxation option affects the input side distortion in the previously non-taxable or exempt sectors. The full taxation option leads to a reduction in the self-supply bias. The public sector's use of private business services increases, and the public sector's use of public business services decreases. There is not much difference between the variants, because the variants only differ with respect to VAT rates charged on outputs. Rows 6 and 7

contain the impacts on the general public sector activity level. This declines, because its services become more expensive. There is a negative effect when substituting away from public core services, towards private core services. This effect is the dominating effect. There are also positive effects coming from an increased demand for public services due to a higher income level in the economy. However, the net effect is a decline of public output and employment. Row 8 contains information on the impact on wages. Wages increase, because demand shifts to the private sector, where we assume productivity is higher. Finally, row 9 contains information on the impact on public budgets. We have summarized this information into a required decrease in the standard VAT rate in order to balance public budgets. The full taxation model, variant 1, will lead to an estimated decrease in standard VAT rates of approximately 10 per cent (e.g. from 19.6 per cent in France to approximately 17.6 per cent), if we assume there is a high degree of substitution between public and private services. The effect is less in variant 2, because the VAT revenue generated is less, due to the reduced rates.

Table 5.2: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Full taxation, competition between public and private providers		Full taxation, no competition between public and private providers	
	Variant 1	Variant 2	Variant 1	Variant 2
Change in GDP pct.-points (billion Euro)	0.34 (37.77)	0.32 (35.35)	0.09 (10.39)	0.07 (7.79)
Change in public core services share of total output, pct.-points	-0.10	-0.07	-0.07	-0.05
Change in private core services share of total output, pct.-points	0.04	0.07	-0.04	0.00
Change in private business services input share to pub. sec, pct.-pts.	2.56	2.54	2.70	2.67
Change in public business services input share to public sectors, pct.-points	-2.54	-2.51	-2.74	-2.72
Change in public sector output, pct. points	-0.68	-0.47	-0.12	0.04
Change in public sector employment, pct. (thousand persons)	-1.14 (493.1)	-1.02 (422.2)	-0.74 (319.3)	-0.65 (279.3)
Change in wages pct.	0.25	0.25	0.29	0.28
VAT rate calibration of revenue balance (billion Euro)	-10.44 (80.38)	-6.60 (50.82)	-6.75 (51.97)	-2.80 (21.65)

Note: Competition means that we assumed that there are basically no legal or economic barriers for competition between public and private core services. No competition means we assume that either laws prevent private operators from competing, or economic structures make it impossible for more than one operator to survive in the market.

Source: Copenhagen Economics.

5.1.6. Distortions of competition

This is the first of 14 subsections which describe various qualitative impacts of a full taxation system. Some of the impacts were also assessed quantitatively in the subsection above, but the intention of these subsections is to describe some further-searching impacts than were captured in the quantitative analysis.

Introducing full taxation of supplies for consideration would contribute to removing the distortion of competition between public and private service providers, by creating a level playing field

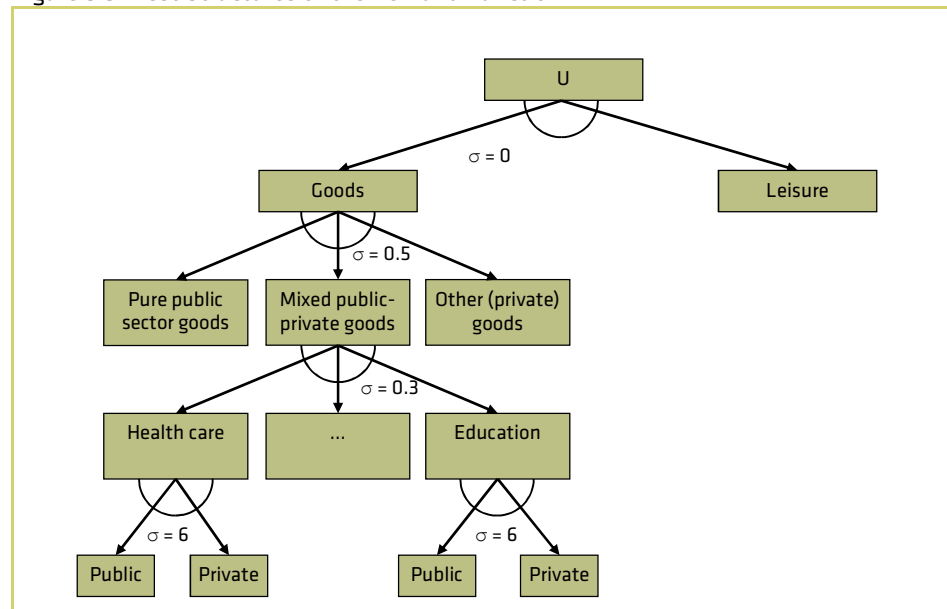
for public and private suppliers in the cases where private suppliers compete with public suppliers, and where they charge a fee or price for their services.

In some Member States there are other legal barriers to competition between public and private sector. For example, in Austria and Greece there is mandatory use of public service offerings in the area of waste disposal. The full taxation option will not by itself lead to a removal of this barrier to competition.

We analyse 2 different scenarios for the full taxation solution. As an upper bound for the effects we assume that there is competition between public and private sectors on the output side, with a substitution elasticity of 6, cf.

Figure 5.3. As a lower bound we make the assumption that, due to legal and other barriers, there is no competition between public and private sectors on the output side, so we set the substitution elasticity between public and private supplies of final goods and services to zero.

Figure 5.3: Nest Structures of the Demand Function



Source: CEVM

In the full taxation variant 1, the price of all (or almost all) services in education, health care and culture increases, because both public and private bodies are currently predominantly carrying out non-taxable or exempt supplies in these areas which then would be liable to VAT. Furthermore, the price of (former) exempt postal services, public broadcasting and public waste disposal

increases, while the price of (currently) non-exempt postal services, private broadcasting and private waste disposal remains unchanged. This implies that

- The average price of all core services increases
- The average price of education, health care and cultural services increase relatively lot
- The price of public or previously exempt services in postal, broadcasting or waste disposal increases relative to corresponding private or non-exempt services

This leads to a decrease in total demand for core services, a decrease in demand for education, health care and cultural services, a decrease in demand for previously exempt postal services and public broadcasting and waste disposal and an increase in (currently) non-exempt postal services and private broadcasting and waste disposal. We would thus expect demand for public core services to decrease, which is also what we see in Table 5.2.

On the one hand, it is not clear a priori what will happen to total demand for private core services. Our estimation indicates that it increases. This is consistent with the existence of a relatively high degree of substitution between public and private core services and a 'normal' income elasticity of 1. This is because demand for private education, health care and culture does not decrease so much in response to a price decrease which is the same for public and private services. On the other hand, demand for (currently) non-exempt postal services, public broadcasting and waste disposal increases strongly when prices of public services increase relative to prices of private services.

In the full taxation variant 2, the price of all (or almost all) services in education, health care and culture increases, but by less than was the case in variant 1. Furthermore, the price of exempt postal services increases. What happens to the average price of public broadcasting and public waste disposal is less certain, because in several countries these services are already taxed at the standard rate. In some countries, prices of public broadcasting and waste disposal decrease because of the adoption of reduced rates. In other countries the price increase because the services change from being non-taxable or exempt to being taxed at a reduced rate. This implies that

- The average price of all core services probably increases, because education, health care and culture constitute the lion's share of core services
- The average price of education, health care and cultural services increases
- The price of public or previously exempt services in postal, broadcasting or waste disposal increases relative to corresponding private or non-exempt services, but the average price of public and private services may decrease

This leads to a decrease in demand for public core services, a decrease in demand for education, health care and cultural services, and a decrease in demand for previously exempt postal services. In contrast, demand for previously non-exempt postal services and private broadcasting and

waste disposal will increase. The impact on demand for public broadcasting and waste disposal is uncertain. We would thus expect demand for public core services to decrease, which is also what we see in Table 5.2.

Given that total demand for private core services increases in full taxation variant 1, we expect it to increase in variant 2 as well. This is because the price increase in education, health care and culture is smaller than in variant 1, and for postal services, broadcasting and waste disposal, prices decrease, which generates a stronger demand increase than in variant 1. The increase in demand for private core services is actually so large that it leads to an increase in total demand for core services. This is also what we see in the estimation results.

In the estimations where we assume no substitution between private and public core services, the impacts of full taxation variants 1 and 2 change significantly. The initial effect of the VAT reforms on prices are the same in the case where we assume competition between public and private core services. The taxation of education, health care and cultural services leads to a reduction in demand for these services, both public and private.

The increase in average prices of core services leads to a reduction in demand for all core services, both public and private, in full taxation variant 1. Even in previously exempt postal services, public broadcasting and public waste disposal, demand drops. This is because of the assumption of no substitution between public and private core services. This assumption implies that when the price of public core services increase, consumers do not shift to private core services, but continue paying the higher price of public services. This drains their household budget and reduces the amount of goods and services they can afford, so the demand for all goods and services decreases. In variant 1, the price increase of education, health care and cultural services is limited, and the average price over public and private broadcasting and waste disposal, and over previously exempt and non-exempt postal services may even decrease. In the model it seems these effects cancel each other out and there is no change in demand for public and private core services.

The full taxation option thus leads to less distortions of competition in markets for final goods and services in the EU27 economy, in the cases where there is competition between public and private goods.

5.1.7. Revenue effects from a full taxation scheme

Introducing a full taxation scheme or model will increase VAT and lead to an improvement of public budgets revenue, if it is implemented as described in this chapter. This comes from the full taxation of services which are currently not taxed, and the fact that the most services that are being allowed to deduct input VAT are public. Allowing public sector to deduct input VAT has a zero-net effect on national public revenue, meaning that the public revenues go up by the full output taxation of public core service.

However, the purpose of the full taxation scheme is not to increase VAT revenue, but to remove some distortions coming from differential VAT treatment of public and private bodies. It is natural to re-balance the public budgets by reducing the standard VAT rate, so that all changes involved in the full taxation scheme are kept within the VAT system.

We estimate that introducing a full taxation model will increase EU27 VAT revenue by approx. Euro 80 billion per year (in variant 1). If this is to be counterbalanced by a reduced average VAT rate, it corresponds to approx. 10.5 per cent lower average VAT rates. In variant 2 the increase in VAT revenue would be cancelled out by a 6 per cent reduction in the standard VAT rate. This e.g. means that the resulting German VAT rate on these sectors would be 17.9 per cent = $(0.19 \cdot (1 - 0.06))$.¹²⁷

5.1.8. Barriers to entry into existing markets

Under a full taxation, where public and private sectors are equally treated, the VAT treatment cannot be a market entry barrier anymore. However, it should be noted that a reform of VAT would not overcome national rules outside of the VAT law prohibiting competition in the public sector (e.g. state monopolies). As an example, national legislation in Austria stipulates that use of public service offerings is mandatory in the area of waste disposal. In this example, a change in VAT treatment of public bodies would not make it easier for private providers of waste disposal services to enter the market.

5.1.9. Level and structure of investment

One of the effects of a full taxation model with input VAT deduction is that it would encourage public sector entities to invest more, because investment becomes cheaper. However, in the case where we assume that there is competition between the public and the private sector, the increased competition with the private sector leads to a reduction of total activity level in the public sector, driving down investment. It turns out the latter effect dominates.

When we assume that there is no competition between public and private production the investment in the public sector goes down. The decrease in public own production of support functions drives down the total capital use, and this effect dominates the reduced disincentive to invest and the effect of the increase in total public sector activity.

Under a simple tax system, such as a full taxation system, it is not necessary to find special ways of acquiring goods for VAT purposes, e.g. like public-private-partnership schemes, leasing agreements and such. This would save advisory costs.

¹²⁷ The definition of variant 1 and 2 can be found earlier in the report.

The investment in the private sector goes up. This is because the total activity level increases in the private sector, driving up demand for capital. As we can see from Table 5.3 the effect on private sector investments is strong in broadcasting, where there is a strong distortion on the output side in the current system and in the private business services, which supplies support services to the public sector.

Table 5.3: Change in capital use, public sector and private support services sector under full taxation, assuming competition between public and private

Capital Use	Change in capital use	
	Variant 1	Variant 2
Public sector	-1,60%	-1,37%
Total private sector	0,11%	0,10%
Public administration	-0,44%	-0,44%
Public business services	-20,82%	-20,72%
Public education	-0,85%	-0,65%
Public hospitals	-0,87%	-0,67%
Public cultural services	-5,39%	-3,82%
Public waste disposal	-4,10%	-3,80%
Rest of economy	0,46%	0,35%
Private business services	16,49%	16,41%
Private education	-0,34%	-0,22%
Private hospitals	-0,35%	-0,26%
Private cultural services	0,25%	0,94%
Private waste disposal	1,62%	2,07%
Public postal supply	-9,34%	-9,50%
Private postal supply	31,66%	38,57%
Public Broadcasting	-11,79%	-10,67%
Private Broadcasting	3,93%	5,10%

Source: Copenhagen Economics based on modelling results

Perhaps the most noteworthy changes take place in the sectors where the present VAT treatment involves output side distortions. In business services, public investment goes down dramatically, while it increases significantly in private business services. In public (exempt) postal services, investment decreases, and the small private (non-exempt) postal services sector has to increase investment relatively much to be able to meet the shift in demand from public postal to private postal services. Similar effects can be found in broadcasting and waste disposal.

5.1.10. Level and structure of employment

The shift away from public services and toward private services leads to an increase in productivity, because we assume the private sector is more productive. This by itself implies an increase in wages. Nevertheless, the general price level increases, which (everything else equal) leads to a decline in consumption of goods and leisure – and an increase in labour supply. This is driven by there being no substitution between goods and leisure, which implies that an increase in the price of goods will lead to a reduction of real income and a reduction in consumption of goods and leisure. When leisure consumption declines, labour supply increases. The effect from increased productivity dominates, and we estimate that wages will increase, as can be seen from Table 5.2.

As outsourcing decisions are encouraged this also means that the employment in public sector entities will decline, as outsourcing becomes more attractive, all other things being equal.¹²⁸

The increase in outsourcing will generate employment in the private sector. In the short run, however, the increase in employment in the private sector which stems from outsourcing of activities from the public sector to the private sector, will not suffice to cover the loss of employment in the public sector following the increase in outsourcing. This is because we expect the private sector to be more effective than the public sector. In the longer run, the employment effect will become neutral, as wages, labour markets and economic structures adjust to the lower labour demand by the public sector, and labour flows into other uses.

In theory the increased capital investment in the public sector would drive up the public labour productivity, thereby, in turn, decreasing the labour efficiency gap between the public and private sector. The model though does not take this effect into account. We also believe that this effect will be small.

The results from the economic model are that public sector employment decreases by 1.14 per cent, following the introduction of the full taxation model variant 1, if we assume that private and public sectors compete in the market for final goods and services. Contrary, if we assume that private and public sectors do not compete in the market for final goods and services, the public sector employment is less affected and only drops by 0.74 per cent. In the medium to long run, any decrease in public sector employment is offset by a similar increase in private sector employment.

5.1.11. Efficiency in delivering public services

A full taxation model with more outsourcing would lead to more efficient produced services, because private suppliers will take over a larger share of activities, and we assess that private suppli-

¹²⁸ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

ers are more cost effective than public suppliers.¹²⁹ This and the competition in the private sector itself should lead to lower prices and more innovation. Further, the value chain could be sliced and public entities could concentrate on their core services.

The shift in production from the public to the private sector involves a total shift in production from the public to the private sector of 5 per cent, for the goods and services in public interest when we assume competition between public and private producers in the market for final goods. The production which shifts from the public sector to the private sector will be produced 15 per cent more efficiently, resulting in an overall 0.75 per cent ($0.05 * 0.15$) improved efficiency in the production of core services.

5.1.12 Impact on Social Security Systems

Social security expenditure will be directly affected if they are linked to productivity or average earnings in the labour market. As productivity and average income increases in the full taxation scenario, social security expenditure will increase as well. Furthermore, there will probably be an indirect impact on social security expenditures, because the increase in the prices of health care caused by the full taxation model will disproportionately hit the elderly population and individuals on health related public income transfer schemes. Elderly and ill people on average have greater health care expenditure than the rest of the population. There is likely to be a demand for higher social security transfers to offset the increase in health care costs. Whether this results in higher social security costs is a political question.

The effect on social security contributions depends on the precise construction of social security systems in the Member States. If the contributions are linked to individuals' income, then the contributions will increase because incomes increase. If they are linked to prices, they will increase as well. If they are linked to public expenditure, though, they will remain constant, to the extent that the governments reduce standard VAT rates to re-balance the public budget. The reason is that re-balancing means that the net effect on the public budget is zero.

A shift to full taxation will also impact public finances in other ways. Some consumption taxes are calculated on the basis of after-tax prices. As the standard rate decreases, this may lead to loss of public revenue coming from such taxes. Such effects are not modelled in the economic model.

¹²⁹ M.C.Wassenaar, R.H.J.M.Gradus: "Contracting out: The importance of a Solution for the VAT Distortion", CESifo Economic Studies, Vol. 50, 2/2004, pg. 377-378

5.1.13. Welfare cost

Introducing the full taxation model will remove some important distortions of competition and allow more cost efficient suppliers to solve a larger share of the public sector's tasks. This reduces the welfare cost associated with VAT and improves the general welfare of the EU27 population.

We have chosen to indicate the welfare effect by using GDP. Our analysis, using the general equilibrium model, estimates a welfare gain following the introduction of the full taxation model of approximately 0.34 per cent increase in EU27 GDP with full competition. With no competition, the only effects comes from outsourcing of support function. In this scenario GDP increases by 0.09 per cent.

An important caveat here is that our economic model, which we use for estimating impacts of VAT reforms, does not include legal and other non-economic barriers to outsourcing or to establishment. This means that our estimate of the economic gain from VAT reforms probably overestimates the gains, because it assumes that once the VAT differential between the private and public sector is gone, there will be no more barriers to outsourcing and establishment. In order to realize these gains, however, VAT reforms is not sufficient, but the legal barriers should also be removed.

There are no negative effects for other businesses due to tax cascading.¹³⁰

5.1.14. Prices to be paid by consumers

A full taxation would lead to higher prices, as services which are currently not taxed will be taxed, and the input VAT deduction will not compensate this effect entirely. The precise increase in prices will depend on the VAT rate and the amount of recoverable VAT. The effect will thus be larger in variant 1 of the full taxation model than in variant 2.

Furthermore, the introduction of a full taxation model would have implications for the financing flows between the government, those paying social security contributions, and social security institutions owing to e.g. higher final prices for medicines and health care.

This may have negative social effects. This effect of the reform could be counteracted by changing income tax law or by social transfer payments if the compensation does not take place within the VAT system or the public funding system. Another solution is to apply a reduced VAT on public services.

¹³⁰ M.Aujean, P.Jenkins, S.Poddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No. 4, July/August 1999, pg. 146

Dr. Rita de la Feria, "The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction", INTERTAX, Volume 37, Issue 3, 2009, Kluwer Law International, The Netherlands, pg. 160

However, the impact on prices could be compensated for public bodies such as municipalities, regions, federal states etc., because the higher tax revenue could be paid back to these public bodies within the public funding system. It has to be noted that in some Member States this internal compensation might be complex due to the autonomy of the different levels of public bodies.

This internal compensation might be extended to private entities currently rendering tax-exempt services (like hospitals, culture, and education), because these activities are often partially financed by the state or state-run social security systems. The higher tax revenues could be shifted back to the public sector entities. However, this might be a very complex process and depends on the law of the respective Member States.

5.1.15. Tax compliance cost

A full taxation would reduce the administrative and compliance costs connected with fulfilling VAT obligations.¹³¹ As neither non-taxable nor tax-exempt supplies are provided and, thus, the full input VAT is deductible, no complex calculation methods for input VAT and legal assessments for output services would be necessary anymore.¹³² Less VAT issues have to be solved. This saves personnel costs and tax advisory costs as well as costs for the fiscal administration.

The introduction of a full taxation would lead to a harmonisation of EU VAT law. This could overall lead to a reduction in the compliance costs of running the VAT schemes. Though, the effects are to be small, and are not modelled. The magnitude of compliance costs and effect on overall qualitative results are discussed in the model of the refund system scheme.

In the transition phase the administration costs would, of course, be higher. This effect would eventually be levelled out.

5.1.16. Impact on charities

The impact on charities of the full taxation model described here will depend on the extent of their activities rendered for consideration. If we assume, just for illustration, that all charities' services are rendered for consideration, and that charities will operate on conditions similar to the private for-profit sector following the introduction of a full taxation option, then it is relevant to look at the VAT payment per. employee. In Denmark, the private for-profit sector pays

¹³¹ Pierre-Pascal Gendron, "How should the U.S. treat government entities, non-profit organisations, and other tax-exempt bodies under a VAT?", May 27, 2009, source: www.americantaxpolicyinstitute.org/research.html, pg. 13

¹³² Dr. Rita de la Feria, "The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction", INTERTAX, Volume 37, Issue 3, 2009, Kluwer Law International, The Netherlands, pg. 159
M.Aujean, P.Jenkins, S.Poddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No. 4, July/August 1999, pg. 149

on average between 563 Euro and 4,819 Euro per employee per year (2009 data), while charities pay on average about 235 Euro per employee per year, c.f. Table 5.4. In the case of Denmark, moving to a full taxation system would entail a significant increase in VAT payment of charities. Whether or not this cost can be passed on to consumers is uncertain.

Table 5.4: VAT payments per employee, private sector and charities

	Domestic turnover, mio. Euro	Domestic purchases, mio. Euro	Gross margin, mio. Euro	Estimated VAT, mio. Euro	Employees, full time equivalent	VAT/employee
P Education	690	471	220	55	97,574	563
Q Health and social	540	201	339	85	66,792	1,269
R Culture and recreation	1,436	998	438	109	22,719	4,819
Charities	-	-	-	33	140,620	235

Note: The estimated VAT is calculated by multiplying the difference between firms' domestic sales and domestic purchases by the Danish standard VAT rate.

Source: Copenhagen Economics based on data from ECCVAT and Statistics Denmark, www.statistikbanken.dk, tables FIKS1 and GF1.

The analysis based on VAT per employee is not the optimal way of conducting such analysis, but it is the best we can do with the data at hand. And in the illustration above it is assumed that all charities' activities are performed against a consideration. This is probably not the case. This simple analysis is just only meant as an illustration to show that there might be important impacts on charities from the full taxation option.

If little or none of the increase in VAT can be passed on to consumers, charities' costs will increase markedly. This will probably lead to a significant reduction in their activities, or a strong move towards delivering services without consideration, if this is possible. A reduction in the activities of charities will probably lead to increases in public expenditure, as the public sector will have to take over some tasks that were previously performed by the charities.

5.1.17. Risk of circumvention

In a full taxation model based on the existing notion of consideration, there is the risk that some public and private bodies have an incentive and an ability to organize the way in which they exchange services so that they can avoid paying VAT. This is what we, in this report, call the risk of circumvention.

Basically the risk of circumvention is a risk that some public bodies will design their payments for services received from public or private bodies in such a way that the services will be labelled as 'not for consideration', and hence out of scope of VAT.

The public bodies which will have such an incentive are the ones which are themselves supplying services without a consideration. For example, public administration (and defence) will often deliver services without consideration. For such bodies, input VAT will not be recoverable because they cannot be linked to a taxable output. This means input VAT will be a cost. The buyer, for instance a public administration institution, will then have an incentive to pay for its purchases in a way such that the purchases are not delivered against consideration.

In summary, we believe that a full taxation model will initiate substantial and costly circumvention activities. This effect will be larger for variant 1, where the VAT increase is larger than in variant 2. The risk may be mitigated by careful design of intra-public sector transfers of funds or revising the scope of consideration. Consideration for a supply can be defined very broadly to include even taxes which are directly linked to the supply. For example, Canada includes all amounts in the definition of consideration other than prescribed indirect taxes such as a retail sales tax, or the GST. New Zealand defines the taxes levied by local bodies as consideration for supplies made by them. If governments do nothing active to mitigate the risk of circumvention, there is a significant risk that a share of the positive effects of the full taxation model will not be harvested.

5.1.18. Impact on SMEs

The full taxation model will benefit SMEs. Most of EU's SMEs can be found in the business services sector, where they compete with public sector self-supply. Introducing the full taxation model will remove the self-supply bias, to the extent that previously non-taxable or exempt services are delivered against a consideration. In Table 5.2 one can see a significant change in public sector demand for private support services of more than 2 per cent. A substantial share of this increase will go to European SMEs. However, those sectors where SMEs previously carry out tax exempt activities (such as General Practitioners in Health sector) will be liable to pay VAT under full taxation.

5.1.19. Comparison with results from previous study

The impacts of introducing the full taxation system is estimated to be larger in this study than in the former study. For example, the impact on EU27 GDP is estimated to be 0.34 per cent in this study, whereas it was estimated to be 0.29 per cent in the previous study. The reasons for this larger impact are:

- In the present study we included full taxation of postal services
- In the present study we took into account that refund systems do not cover all core sectors in the countries which have refund systems

Both of these factors imply that there are more economic distortions in the baseline (now) situation, and that the full taxation system therefore removes more economic distortions.

One factor which works in the opposite direction, and which, by itself, would imply smaller impacts in the previous study than in the present study is that in the present study we take into account that many core services are supplied without a consideration. This implies that the VAT changes will not affect as many services in the present study as it did in the previous study. However, the effect of this factor does not completely offset the effects of including postal services and taking into account that refund systems do not cover all core services.

A full overview of the differences between the results in the previous study and the present study is given in the table below, c.f. Table 5.5.

Table 5.5: Comparison of estimation results in previous study and present study

	Previous results	Present results
Change in GDP pct.-points (billion Euro)	0,19% (€ 20,5 billion)	0.34 (37,77)
Change in public core services share of total output, pct.-points	-0.09	-0.10
Change in private core services share of total output, pct.-points	0.03	0.04
Change in private business services input share to pub. sec, pct.-pts.	1.42	2.56
Change in public business services input share to public sectors, pct.-points	-1.74	-2.54
Change in public sector output, pct.	-0.90	-0.68
Change in public sector employment, pct. (thousand persons)	-0.06 (457.73)	-1.14 (493.1)
Change in wages pct.	0.01	0.25
VAT rate calibration of revenue balance (billion Euro)	-18 (.)	-10.44 (80.38)

Source: Copenhagen Economics based on modelling results

5.1.20. Conclusion

The full taxation of all outgoing supplies at standard rate appears to be an effective way of removing the distortions inherent in the current system. Removing the differential VAT treatment of public and private bodies shifts resources to the more productive private sector and allows consumers to make consumption choices which are less distorted by VAT. Furthermore, the system removes the incentives to self-supply caused by differential VAT treatment. This allows public sector decision makers to make choices based more on productivity than on after-VAT prices.

5.2. REFUND SYSTEM

The main problem with the current VAT treatment of the public sectors outsourcing is connected with the non-deductibility of input VAT. Under a system where the supplies of public sector entities are either non-taxable or taxable but tax-exempt, the deduction of input VAT is not possible. This leads to a self-supply bias, disincentives to invest and a cascade effect. A refund system would solve the problem with the input VAT. The idea of compensation is not new. Several

Member States are already operating refund systems outside of the VAT system.¹³³ The Canadian rebate system is another example for this idea¹³⁴. So a refund system would solve the problem with the input VAT and could rely on a practice in several countries. However, under a refund system there would still be a differential VAT treatment with legal uncertainties, possible distortions of competition on the output side and some level of compliance costs.

For the EU it would be difficult to introduce a refund system outside of the VAT system, because only the VAT law is harmonised law pursuant to Art. 113 Treaty on the Functioning of the European Union.

The alternatives are to amend the stipulations about input VAT in the VAT Directive, granting input VAT to certain public sector entities even if they do not have taxable and non-exempt supplies or to introduce a zero-rate for the supplies of the public sector. Both would lead to a system change.

In the following, the general characteristics of a refund system are described. Afterwards the advantages and disadvantages are discussed.

5.2.1. General characteristics

Contrary to a full taxation system, the introduction of a refund system would basically leave the VAT Directive's stipulations about the taxation of output supplies unchanged. The main amendments would be made at the input VAT side.

Thus, it would still be necessary to differentiate between taxable and non-taxable supplies (Art. 13 of the VAT Directive) and between tax-exempt and non-exempt supplies (Art. 132 ff. of the VAT Directive). Even the special rules about reduced rates in the Member States (Art. 98 ff. of the VAT Directive) and the stand still clauses (Art. 371 ff. of the VAT Directive) may be left unchanged.

The main feature of the refund system is the deductibility of input VAT although no taxable and non-exempt supplies are made. This would oppose the current Art. 168 of the VAT Directive, which stipulates one of the main principles of the common VAT system. There are two major alternatives to introduce the deduction of input VAT. The first one is creating a new stipulation in title X chapter 1 of the VAT Directive about input VAT (f.i. within Art. 169 of the VAT Directive or as a new Art. 169a of the VAT Directive), which allows the deduction of input VAT

¹³³ VAT refund system has been already introduced in the following European countries: Sweden, Finland, Denmark, France, Spain, Portugal, the Netherlands, United Kingdom.

¹³⁴ For more information about the Canadian system see H. van Dijk and G. Lubbers, "The VAT Compensation Fun(d)?", IBFD, VAT Monitor, January/February 2000, pg. 8-9

for costs incurred by services that are either non-taxable (pursuant to Art. 13 of the VAT Directive) or tax-exempt (according to Art. 132 of the VAT Directive). As described above this would be a derivation from one of the main principles of the common VAT system. The second alternative would be the introduction of a 'zero-rate' for the supplies of the public sector. This zero-rate could be introduced directly in Art. 13 and 132 of the VAT Directive or, systematically more correct, as a new Art. 97a of the VAT Directive about the mandatory introduction of a zero-rate as a kind of super-reduced rate for the services, currently handled in Art. 13 and 132 of the VAT Directive (effectively this would mean a shift of Art. 13 and 132 of the VAT Directive to this new Article 97a of the VAT Directive).

As a consequence, the Member States with refund systems would have to dispose their systems.

Under a refund system the tax revenues would decline. This effect would have to be compensated, either within the VAT system (rise of standard rate, reduced rate instead of zero-rate or outside of the VAT system, for instance reducing the public funding if there is any). The introduction of a reduced rate would be identical with the reduced rate in a full taxation system as already described above.

5.2.2. New stipulation within title X of the VAT Directive about input VAT

As described above, the refund system could be introduced in a such a way that the stipulations about the deduction of input VAT is amended by a rule, which allows the deduction of input VAT for services which are either non-taxable pursuant to Art. 13 of the VAT Directive or tax-exempt according to Art. 132 of the VAT Directive. There would be no major effect on the taxation of outputs, which is an advantage. This way would be very simple and there would be very limited amendments of the VAT Directive text.

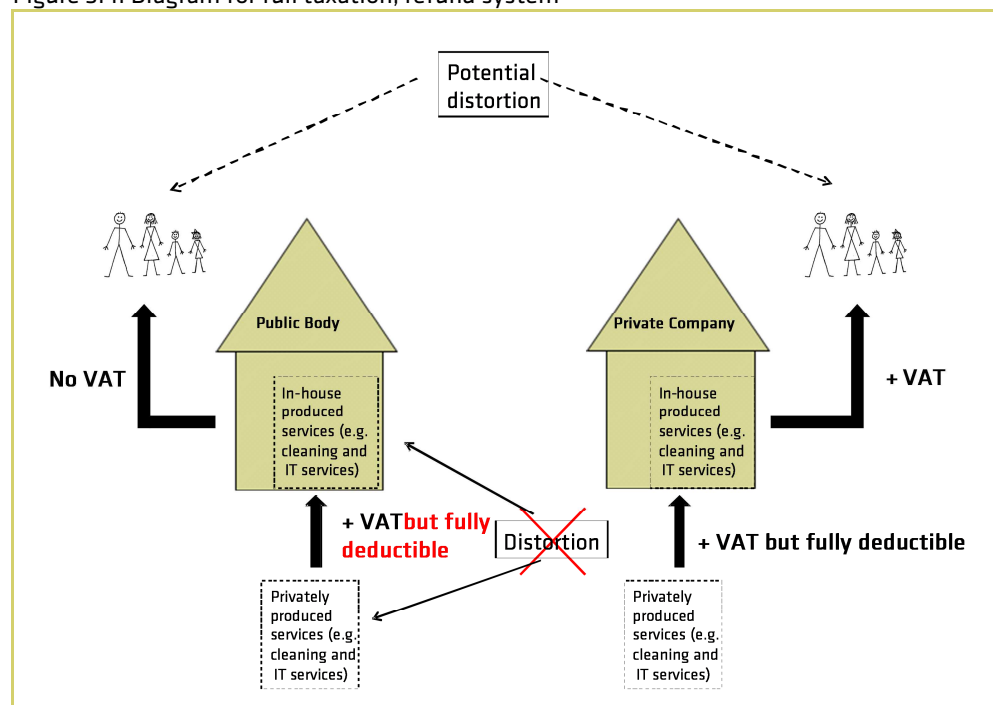
One main disadvantage would be that such an amendment of one of the basic rules of the common VAT system could be considered as a massive violation of the consistence and coherence of the VAT Directive. This violation would be very visible and it would be a question of time that other business sectors would question their input VAT treatment. The other main disadvantage would be the differential VAT treatment of public and private sector entities.¹³⁵ The VAT treatment would still mainly depend on the legal status of the supplier and not on the nature of the services. It is foreseeable that this would maintain legal uncertainty. Further, this could cause an even worse distortion between public and private sector.¹³⁶ The entities currently benefiting from a non-taxability or a tax-exemption are strengthened by the additional deduction of input VAT.

¹³⁵ Satya Poddar, "Application of VAT to Public Bodies", presentation delivered at the VAT Conference, International Tax Dialogue, Rome, March 15-16, 2005

¹³⁶ M. Aujean, "The treatment of Government entities, non-profit organisations and other exempt bodies under a VAT: a discussion paper", 2009, source: www.americantaxpolicyinstitute.org/research.html , pg. 5

In the diagram below, c. f. Figure 5.4, we illustrate how this option affects VAT rates on the input side for the public sector, and how this in turn removes the distortion of competition on the input side. The diagram also shows how the scheme is practically inserted in the CEVM model.

Figure 5.4: Diagram for full taxation, refund system



Source: Copenhagen Economics.

5.2.3. New stipulation within the title VIII of the VAT Directive about tax rates

The disadvantages described for a new stipulation within title X could be limited if the refund system is introduced within the title VIII about tax rates. Such a solution could claim at least a minimum of consistence and coherence with the basic principles of VAT law, as it would treat the public sector's supplies as 'taxed' (even though it is a super reduced tax rate of zero). This would allow the deduction input VAT according to Art. 168 of the VAT Directive. Additionally, it would be possible to introduce this zero-rate for a whole sector, regardless the legal status of the supplier. This could lead to more neutrality.

The only disadvantage, compared with the above describe solution, would be that this solution would require several amendments of the VAT Directive text. Art. 13 and Art. 132 of the VAT Directive would have to be deleted. The catalogue of Art. 132 of the VAT Directive could be

taken as a catalogue of activities that are taxed at the zero-rate. This would be even more difficult in the case of Art. 13 of the VAT Directive. Currently, this article stipulates in a negative way which services are non-taxable. For a refund system one would have to find a positive list of services subject to the zero-rate.

As both sub-solutions have, apart from this the same features, in the following we discuss them at the same time.

5.2.4. Our interpretation of the refund system

First, we interpret the refund system in the way that it removes costs of input VAT.

Second, we assume that all current national refund schemes are removed and replaced by a new refund scheme. The refund scheme covers both public, private and non-profit sectors. This means e.g. that public self-supply will be covered alongside with private business services and private non-exempt postal operators.

Third, there is no direct effect on the VAT rates charged on outputs.

Fourth, public administration becomes free from the cost of input VAT, even though the sector is assumed to deliver no services for consideration. Thus, for public administration the refund system works in a fundamentally different way than the full taxation system.

Fifth, we work with the refund system in two variants: In variant 1, all core services are covered by the refund system. In variant 2, only education, health care, cultural services and public administration are covered.

When we model the economic effects of introducing a VAT refund system, we do two analyses. In the first analysis, we estimate the economic impact of the refund system under the assumption that the refund system does not generate additional compliance costs for the involved parties, compared with the current system. We have in chapter 4 suggested that additional costs of running a refund system could be non-trivial, although we emphasise our lack of quantitative results on this issue.

Introducing the refund system in its two variants leads to a set of VAT rates, which we use in the model and which are shown in Tables 6.4-6.6 (see Appendix):¹³⁷

¹³⁷ Note that costs of input VAT refer to supplies from a taxable and non-exempt sector.

5.2.5. Impacts of refund system

Introducing the refund system means removing costs of input VAT to all non-taxable or exempt sectors in the economy. These bodies pass their VAT bills onto a relevant public body and get the money back. As mentioned above, this goes beyond the full taxation system, because in the full taxation system, input VAT can only be recovered if the VAT expense is incurred in connection with an activity performed against a consideration. In the refund system, carrying out an (output-)activity for consideration does not matter for the ability to get VAT expenditures refunded. The refund system has no direct effect on the VAT rates charged on outputs.

The impacts of the system in its two variants are summarized in Table 5.6. The table also reports the results of a sensitivity analysis, where we vary the level of compliance costs between zero and 0.3 per cent of labour costs. We do not know the level of compliance costs, so we run the estimation assuming either a very large cost or no cost at all.

In the first row it can be seen that we estimate that GDP decreases by 0.05 per cent when a refund scheme is introduced given our assumption on the level of compliance costs. In this calculation example, the compliance cost is not compensated by productivity gains achieved by removing the self-supply bias. This shows the importance of implementing a refund scheme, with minimum compliance costs.

Table 5.6: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Refund system, compliance costs assumed		Refund system, <u>no</u> compliance costs assumed	
	Variant 1	Variant 2	Variant 1	Variant 2
Change in GDP pct.-points (billion Euro)	-0.05 (-5,14)	-0.05 (-5,04)	0.02 (2.04)	0.02 (1,98)
Change in public core services share of total output, pct.-points	-0.01	-0.01	0.00	0.00
Change in private core services share of total output, pct.-points	-0.01	0.00	0.00	0.00
Change in private business services input share to pub. sec, pct.-pts.	3,68	3,63	3,68	3,63
Change in public business services input share to public sectors, pct.-points	-3,94	-3,87	-3,94	-3,87
Change in public sector output, pct. points	0.30	0.26	0.44	0.40
Change in public sector employment, pct. Points (thousand persons)*	-0.37 (160.9)	-0.37 (161.4)	-0.58 (250.9)	-0.58 (249.8)
Change in wages pct.	0.26	0.26	0.24	0.23
VAT rate calibration of revenue balance (billion Euro)	17.8** (-134)	17.4 (-132)	17.8 (-134)	17.4 (-132)

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Note: *The decline in public sector employment is offset by increased private sector employment.

** Existence of compliance costs have not visible effect on the lost VAT revenue. The reason is that the change in public and private business services is the same in the two scenarios, along with all other inputs to production.

In row 2 and 3 of the table, we show the estimated impacts on the public and private core services shares of the economy. In the two scenarios with compliance costs, there is a non-negligible negative impact in both private and public core services share of the economy, whereas in the scenarios without compliance costs the impact is negligible. The compliance costs result in higher prices and thus substitution of demand towards alternative demand. There is a small difference between variant 1 and 2, but this is mainly due to rounding the estimates. Throughout the table, the difference between variant 1 and 2 are only very small. In row 4 and 5 of the table, we show the estimated impacts on public sector's use of input from business services. The findings in all variants and scenarios show increases in private business services and declines in public sector

self-supply. This result comes about because public sector incentives to self-supply become much reduced. In row 6 and 7 the impacts on the general activity level in the public sector are indicated. In all variants and scenarios, the public sector increases its activity level, but public sector employment decreases. This is because private business services substitute for public sector self-supply on a large scale. So public employment effectively shifts to the private sector. The impact of this structural change can be seen in row 8, where we see wages increase. This is the result of higher productivity in the private sector.

5.2.6. Distortions of competition

A refund system would grant the neutrality of outsourcing decisions.¹³⁸ There would be no unfair competition between an in-house solution and contracting-out as VAT plays no role in this context anymore. The VAT on contracted-out services could be deducted in a refund system. This reduction in the distortion of competition can be seen from Table 5.6 as an increase of 3.63-3.68 per cent in the private sector's supply of business services to the public sector, and a decrease in public sector self-supply of 3.87-3.94 per cent.

This effect arises due to the fact that the public sector's cost of purchasing private business services declines by about 20 per cent, and there is a high degree of substitution between public and private business services. We assume the elasticity of substitution between them is 6 – the same elasticity of substitution as between public and private core services.

However, the refund system cannot solve the problem of differential VAT treatment on the output side. The services of the public sector would still not be treated like supplies of other business sectors. It is still necessary to differentiate between non-taxed and taxed supplies. The uncertainties in the legal practice could lead to distortions, although, theoretically, there should be no distortion.

5.2.7. Barriers to entry into existing markets

The refund system affects barriers to entry into markets for support services. It does not, however, affect entry into markets for final goods and services. Barriers to entry into markets for support services will be reduced.

5.2.8. Level and structure of investment

The refund system solution with input VAT deduction for both public and private bodies would encourage outsourcing. This stimulates investment in private business services, where demand increases. However, in most other sectors, own investment becomes less attractive compared to outsourcing. In Table 5.7 we can see that total capital use declines in both the public and private

¹³⁸ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

sector, but that investment in private business services' capital use increases strongly. Aggregate investment in the private sector and in private core services declines because the standard VAT rate has to be increased relatively much to finance the refund scheme.

Table 5.7: Change in capital use, public sector and private business services sector under refund system, no compliance costs assumed

Capital Use	Change in capital use	
	Variant 1	Variant 2
Public sector	-0,74%	-0,75%
Total private sector	-0,25%	-0,24%
Public administration	-0,92%	-0,91%
Public business services	-1,48%	-1,43%
Public education	-0,96%	-0,96%
Public hospitals	-0,92%	-0,91%
Public cultural services	0,46%	0,46%
Public waste disposal	-0,63%	-0,68%
Rest of economy	-0,25%	-0,25%
Private business services	0,68%	0,64%
Private education	-0,78%	-0,78%
Private hospitals	-1,02%	-1,02%
Private cultural services	-0,48%	-0,48%
Private waste disposal	-1,10%	-1,04%
Public postal supply	-1,13%	-1,24%
Private postal supply	3,72%	5,67%
Public Broadcasting	0,66%	0,39%
Private Broadcasting	-0,25%	-0,07%

Source: *Copenhagen Economics based on modelling results*

5.2.9. Level and structure of employment

As outsourcing decisions are encouraged, this also means that the employment in public sector entities will decline as outsourcing becomes more attractive.¹³⁹

The increase in outsourcing will generate employment in the private sector. However, in the short run, the increase in employment in the private sector which stems from outsourcing of activities from the public sector to the private sector, will not suffice to cover the loss of employ-

¹³⁹ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

ment in the public sector, following the increase in outsourcing. This is because we expect the private sector to be more effective than the public sector, as described in chapter 4. In the longer run, unemployment will return to its previous structural level, as it were the case in the full taxation model.

In Table 5.6, we can see the long run effects of introducing the refund system on employment. If we assume that there are no compliance costs, we estimate that the refund system will lead to a decrease in public sector employment of 0.58 per cent and a corresponding increase in private sector employment.

5.2.10. Efficiency in delivering public services

A refund system with more outsourcing would lead to more efficient produced services, because in-house solutions are competing with external solutions.¹⁴⁰ This and the competition in the private sector itself should lead to lower prices and more innovation. Further, the value chain could be sliced and public entities could concentrate on core services. These arguments are just like above for the full taxation model.

The shift from own production of support functions to the private sector is approx. 4 per cent, which is produced 15 per cent more efficiently. This increases average efficiency in the relevant services by 0.6 per cent.

5.2.11. Impact on public revenues

The main impact on public revenue in the refund system comes from the government having to refund input VAT to private bodies, including non-profit bodies, which are non-taxable or exempt. The effect of refunding input VAT to public bodies is just an intra-government transfer of money.

The input VAT expenditure associated with the activities of exempt or non-taxable private and non-profit bodies' purchases corresponds to an necessary increase in the VAT rates of about 4.1 per cent (not percentage points), in order to re-balance public budgets. This amounts to Euro 35 billion of which charities account for € 6 billion and private bodies for € 29 billion. Although purely an intra-governmental issue, a refund system will shift € 99 billion to exempt or non-taxable public bodies when introducing a refund scheme.

¹⁴⁰ M.C.Wassenaar, R.H.J.M.Gradus: "Contracting out: The importance of a Solution for the VAT Distortion", CESifo Economic Studies, Vol. 50, 2/2004, pg. 377-378

Dr. Rita de la Feria, "The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction", INTERTAX, Volume 37, Issue 3, 2009, Kluwer Law International, The Netherlands, pg. 160

5.2.12. Impact on Social Security System

The effects of the refund system could lead to an increase in social security payments, depending on how social benefits are linked to the general development in incomes and prices in the economy. If linked to wages or prices, social security payments would go up as wages and prices increase.

5.2.13. Welfare cost

If the refund system model encourages outsourcing decisions and these are leading to more efficient services this would lower the welfare costs. There are no negative effects for other businesses due to tax cascading.¹⁴¹

The total GDP effects depend on what one assumes about the compliance costs associated with the system. With no compliance costs the GDP effects from the refund system is 0.02 per cent. This figure will be lower when considering compliance costs.

5.2.14. Prices to be paid by consumers

As the public sector is granted a deduction of input VAT the costs could be reduced correspondingly. The public sector entities could decide to use this cost saving to reduce the prices for the consumers. It has to be noted that the suppliers are not legally obliged to lower the prices, unless there are regulatory requirements. However, as many public sector entities are welfare-orientated it could be expected that prices would be reduced in a larger extent than it is often noticed in connection with reduced rates.

5.2.15. Tax compliance cost

The administration costs for VAT would remain the same for the output side, as the taxation rules would not change fundamentally.

On the input side it would not be necessary to differentiate for the purposes of input VAT, as all supplies would be entitled to deduct input VAT. Less VAT issues have to be solved and less complex calculation would be necessary. This saves personnel costs and tax advisory costs.

5.2.16. Impact on charities

An impression of the impact on charities of the refund model can be collected from the information in chapter 4, where it is shown that in Denmark, Ireland, Italy, Spain, Sweden and UK, total VAT expenditure of charities amounts to approx. € 3.6 Billion per year. A refund system would almost eliminate these costs, regardless of variant 1 or 2 were introduced. This is because

¹⁴¹ M.Aujean, P.Jenkins, S.Poddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No.4, July/August 1999, pg. 146

most of charities' activities lie in the areas of health care, education, social work and culture, which will be covered by the refund system regardless of which of variant 1 and 2 should be chosen. It would also improve the position of charities with respect to competing with the public core services and public business services.

5.2.17. Impact on SMEs

The refund system would be good for SMEs, because the public sector's incentives to self-supply would be much diminished. As explained earlier, in chapter 4, most of European SMEs can be found in the business services sector, where currently there exist strong incentives for the public sector to self-supply. The refund system will lead to an increase in demand of approx. 4 per cent. This will provide important opportunities for SMEs to increase their value creation.

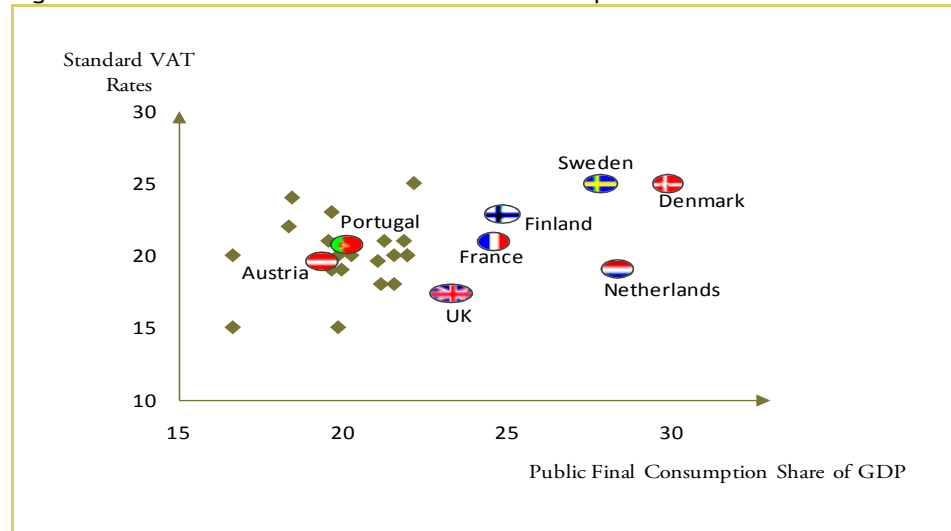
5.2.18. Comparison with results from previous study

The refund system modelled in the present study also encompasses private and non-profit bodies, so the results of the economic modelling in the present study are not comparable with the results of the previous study in the same way as the results of the full taxation model were.

5.2.19. Conclusion

The refund system is able to deal with all problems resulting from the non-deductibility in the current system, i.e. outsourcing decisions are encouraged. However, there is a risk that the economic gains disappear in compliance costs associated with the system. In order to reap the benefits of a refund system, careful consideration should be paid to designing the system in a way which is easy to administer for government, business and charities. If this is successful, then a refund system is better than the current system when it comes to distortions on the input side. This may also be the reason why refund schemes currently are adopted in countries where the public sector is large, and where the self-supply bias can be expected to play a major role. Figure 5.5 below shows that refund schemes currently exist in the Member States with high public expenditure.

Figure 5.5: EU27 Member States with and without compensation schemes



Note: A flag indicates that the particular Member State has a compensation scheme in place.

Source: Eurostat.

On the other hand a refund system violates basic legal principles of the common VAT system. It would be quite difficult to find clear stipulations in the VAT Directive to realise a refund system. Further, this system would not overcome the differentiated VAT treatment of output supplies.

All in all, the refund system may be better than the current system but not as good as the full taxation system.

5.3. DELETION OF ARTICLE 13 OF THE VAT DIRECTIVE WHILE KEEPING TAX EXEMPTIONS IN THE PUBLIC INTEREST

In the current EU VAT law system, no output VAT is generally applied on supplies of public sector entities, as these are often regarded as either being outside the scope of VAT system (non-taxable) or tax-exempt. Only under certain circumstances supplies of public sector entities have to be taxed. The price for general non-taxation of supplies provided is, however, the denial of the right to deduct input VAT by purchases made exclusively for purposes of such supplies. In case of 'mixed used' purchases (i.e. purchases used both for taxed and for non-taxable and/or tax-exempt supplies), public bodies have to apply special calculation mechanisms in order to assess the deductible part of input VAT.

The current provisions of EU VAT law about VAT in the public sector were created under significant different market conditions as the competition between public and private sector entities

as regards provision of certain supplies was formerly at a very low level. Therefore, it was not a burning issue at all to ensure the equal treatment of both groups and useful outsourcing decisions in the time of introduction of common VAT system, and the special VAT regime for public sector entities.¹⁴²

An option for a better treatment of the public sector could be based on basically abolishing the special VAT regime for the public sector, in order to equalize VAT treatment for the public and private sector.

5.3.1. General characteristics

In this option, the special status of the public sector entities based on the provision of the Article 13 of the VAT Directive would be removed by deleting Article 13 of the VAT Directive completely. Thus, public bodies would be regarded as taxable persons, with respect to all their supplies for consideration and consequently, only the character of the supplies provided would be relevant for the determination of the VAT regime applicable. If considered as necessary, some of the currently non-taxable activities pursuant to Art. 13 of the VAT Directive could be treated as tax-exempt under Article 132 of the VAT Directive. Furthermore, the Article 132 of the VAT Directive should be modernised as regards the scope of supplies covered. The tax-exemptions of a modernised Article 13 of the VAT Directive should only depend on the nature of the supply, and not on the characteristics of the supplier.

As a result, supplies of public bodies lying presently outside the scope of VAT (Article 13 of the VAT Directive) would become taxable supplies (either tax-exempt or non-exempt supplies). This would for example affect such services as: waste management, sewage, air traffic control, parking and road tolls and crematoriums. Since the VAT treatment of some activities varies among the Member States as regards non-taxability, the impact of deleting Article 13 of the VAT Directive would also be different.¹⁴³ The supplies not covered by the new Article 132 of the VAT Directive would automatically be treated as the taxable (non-exempt) supplies. In this regard, it would be feasible to extend the scope of Article 132 to services provided by public authority, such as justice, identity cards, passports, which in some Member States may be supplied for a consideration and are generally considered as services which should not be taxed.

The decision of which additional public sector activities to exempt should probably rely mostly on political considerations, as it is hard to find economic reasons for exempting certain sectors. From an economic point of view, taxation has several roles:

¹⁴² For an overview as regards the origins of the European stipulations see: C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, page 433.

¹⁴³ For a detailed information about the VAT treatment of the sectors of waste disposal, cultural services, education, hospital services, homes for elderly, sport and broadcasting please see chapter 2.3 above.

- Generating public revenue
- Correcting for market imperfections
- Contributing to a desired distribution of consumption possibilities in the population

These objectives should be pursued in the way which least distorts individuals' behaviour (except for undesirable behaviour, such as pollution).

However, none of these objectives appear to justify why public bodies should be exempt and private bodies not be exempt. If a service is a poor vehicle for generating public revenue (which speaks in favour of exemption) then this should be the case regardless of whether the supplier is public or private. The same logic applies for the objectives of correcting for market imperfections and improving upon the distribution of consumption possibilities.

When it comes to exempting selected services regardless of whether the supplier is public or private, the above principles do not help much. All the services we consider can be assumed to be potentially good vehicles for generating public revenue, because for none of them it is reasonable to expect that demand would drop dramatically in response to a small price change.

Furthermore, exempting some of the services at this general level would probably create at least as many market imperfections as they remove. Some very specific services might be associated with important externalities that might warrant exemption, but we do not have sufficiently detailed information to determine which these services are. That would require an in-depth analysis and quantification of consumption externalities of some very detailed services, and we have not done that analysis for the purpose of this report.

Finally, one could make a reasonable case for exempting some services for distributional reasons. However, given the pitfalls and potential costs associated with exempting selected services, we would propose to instead use traditional social policy instruments such as direct income transfers to individuals or progressive income taxation in order to pursue distributional objectives. Thereby, one could give money to poor people without also giving money to rich people.

The terms of reference specify the option for analysis as "deletion of article 13 of the VAT directive while keeping certain exemptions". In the following subsection we explain how we interpret this for the purposes of economic modelling.

5.3.2. Our interpretation of the deletion of article 13 of the VAT directive while keeping certain exemptions

This study is a follow-up study on Copenhagen Economics (2011) in which careful consideration was paid to which sectors are most affected by differential VAT treatment, and where we expected the economic consequences to be most important. In that study we chose to focus on broadcasting, cultural services, education, health care and waste and sewage disposal. In the terms of reference for this study we are required to consider also postal services, air traffic control, parking services and toll roads. Earlier in this study, in chapter 4, we decided that out of these four sectors, we conduct economic modelling of only postal services. In summary, we estimate the economic impacts of deletion of article 13 while keeping certain exemptions, by explicitly modelling the VAT changes in broadcasting, cultural services, education, health care, postal services and waste and sewage disposal. We consider that these sectors are most important to include in the economic model, beside the private sector and public administration. Other sectors are likely to be significantly affected by the deletion of article 13, but we do not consider that the economic model is the best tool to analyse those effects.

We model the deletion of article 13 option in a way which is largely similar to the full taxation model, except for the range of sectors made taxable and non-exempt. In the deletion article 13 scenario, we model broadcasting, postal services and waste and sewage disposal as being made taxable, while cultural services, education, health care, and public administration remains out of scope or exempt. We consider two variants. In the first variant, the VAT rates of the previously exempt or non-taxable sectors become taxable at the standard VAT rate prevailing in the individual Member State. In the second variant, the sectors become taxable at the lowest reduced rate of the respective Member State (must be at least 5%), or 5 per cent respectively, if the Member State has no reduced rate (Denmark). In addition to the two variants, we perform a sensitivity analysis, in which we analyse which individual sector of the three aforementioned: broadcasting, postal services and waste disposal contribute most to the effect of variant 1.

This leads us to assume a set of VAT rates for modelling purposes which are presented in Tables 6.7-6.18 (see Appendix). Note that costs of input VAT refer to supplies from a taxable and non-exempt sector.

5.3.3. Impacts of Deletion article 13 while keeping exemptions in the public interest

Introducing the deletion of article 13 policy option for modelling purposes only affects broadcasting, postal services and waste and sewage disposal. For these sectors, both the distortions on the output side and the self-supply bias disappear. Generally, the economic impacts of the policy option are small, because the sectors affected by VAT changes are small relative to the European economy and because broadcasting and waste disposal services to a certain extent are already taxable and non-exempt in many Member States. The estimated results of the deletion article 13 while keeping exemptions in public interest are summarized in Table 5.8.

Table 5.8: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector

	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest	
	Variant 1	Variant 2
Change in GDP pct.-points (billion Euro)	0.01 (1,29)	0.01 (0,81)
Change in public core services share of total output, pct.- points	-0.03	-0.03
Change in private core services share of total output, pct.- points	0.02	0.02
Change in private business services input share to pub. sec, pct.-pts.	0.07	0.05
Change in public business services input share to public sectors, pct.-points	-0.09	-0.07
Change in public sector output, pct	-0.25	-0.26
Change in public sector employ- ment, pct. Points (thousand per- sons)	-0.17 (74.3)	-0.17 (74.9)
Change in wages pct.-points	0.00	0.00
VAT rate calibra- tion of revenue balance (billion Euro)	-0.49 (3.77)	0.04 (-0.31)

Note: In the medium to long run, private job creation will offset drops in public employment.

Source: Copenhagen Economics based on modelling results

The table shows the results of the two variants and scenarios of the policy option, which we consider. In the first row it can be seen that the GDP impact is in the neighbourhood of 0.01 per cent. In variant 2 of the option, the GDP-impact is € 0.81 Billion, which is less than the impact of only making postal services taxable and non-exempt at the standard rate (€ 1.29 Billion). In row 2 and 3 the effects on the public and private core services' share of the economy are shown. The removal of output side distortions in postal services has a significant effect on the share of public core services, which decreases by 0.03 per cent in variant 1 and 2. In contrast, private core services' share increase by 0.02 per cent. In row 4 and 5, the impact on public sector input structure is shown. Public sector use of private business services goes up by 0.05-0.07 per cent in the two variants. As before, the impact is driven by the postal services sector becoming taxable and non-exempt. Public sector use of self-supply declines by 0.07-0.09 per cent in the two variants, with the majority of the impact again coming from postal services. In row 6 and 7 the impact on the entire public sector is shown.

It should be noted, that exempt postal services are lumped together with public services in these result-tables. Most of the impact ascribed to 'public sector' therefore, in reality, comes from exempt postal services, which may very well be run by private companies. Both output and employment in the public sector go down as a result of making broadcasting, postal services and waste and sewage disposal taxable and non-exempt. Most of the decrease in public sector output of 0.25 per cent and the decrease in employment of 0.17 per cent can be ascribed to postal services – which may be private companies. In row 8 we see that there is no impact on wages. In row 9 the impact on public budgets is illustrated by the change in standard rates necessary to re-balance public budgets after introduction of taxation. Interestingly, variant 1 implies an improvement in public budgets, which allows for a decrease in standard rates, while variant 2 implies a worsening of public budgets, which requires an increase in standard rates to re-balance the budgets. The reason for this difference lies in the broadcasting and waste disposal sectors (or parts of them) already being taxed at standard rates in many countries. Therefore, variant 2 leads to a decrease in average VAT revenues, which worsens the public budgets.

5.3.4. Distortions of competition

The deletion of Article 13 of the VAT Directive would not completely remove non-taxability of the public sector since all activities not qualifying as an economic activity in the sense of Article 9 of the VAT Directive would remain non-taxable. Accordingly, a considerable part of the public sector would still be denied the deduction of input VAT incurred. As a result, unfair competition insofar that in-house solutions are – from a VAT perspective – more favourable than outsourcing, would still remain. Furthermore, since this scenario only includes three sectors, the output side and input side distortions in cultural services, health care and education are not removed.

Though the economy-wide impact is limited, the effects will be felt in the sectors encompassed by the policy option. Competition will increase much in postal services following introduction of taxation.

5.3.5. Barriers to entry into existing markets

By deleting Article 13 of the VAT Directive and redesigning Article 132 of the VAT Directive, all outputs regardless of the supplier being public or private would be treated equally. In this respect, the VAT would not anymore prevent private competitors from entering into existing markets dominated by public suppliers.

5.3.6. Level and structure of investment

The solution for treating public sectors as taxable persons would encourage public sector entities to invest, because investment becomes cheaper.¹⁴⁴ Besides, taxable sectors who experience a more level playing field vis-a-vis their previously non-taxable or exempt competitors are likely to increase investment. However, the (previously) non-taxable and exempt sectors which become subject to increased competition in the final output markets may invest less because there is a risk that their markets erode.

From Table 5.9 we see the results of the economic modelling of the deletion article 13 option on capital use. Public sector capital use decreases, while private sector capital use increases. This is mainly driven by the effect of increased competition in the postal services sector.

¹⁴⁴ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

M. Aujean, "The treatment of Government entities, non-profit organisations and other exempt bodies under a VAT: a discussion paper"; 2009, source: www.americantaxpolicyinstitute.org/research.html , pg. 3

Table 5.9: Change in capital use, public and private sector under deletion article 13 while keeping certain exemptions in the public interest

Capital Use	Change in capital use	
	Variant 1	Variant 2
Public sector	-0,47%	-0,49%
Total private sector	0,04%	0,04%
Public administration	0,00%	0,00%
Public business services	-0,15%	-0,01%
Public education	-0,01%	0,00%
Public hospitals	-0,01%	0,00%
Public cultural services	-0,03%	0,01%
Public waste disposal	-3,64%	-3,35%
Rest of economy	0,02%	0,00%
Private business services	0,12%	0,01%
Private education	0,00%	-0,01%
Private hospitals	0,00%	0,00%
Private cultural services	-0,01%	-0,02%
Private waste disposal	2,27%	2,69%
Public postal supply	-8,57%	-9,37%
Private postal supply	26,27%	35,51%
Public Broadcasting	-11,81%	-10,76%
Private Broadcasting	3,39%	4,52%

Source: Copenhagen Economics based on modelling results

5.3.7. Level and structure of employment

For the activities where the deletion of Article 13 of the VAT Directive and adjustment of Article 132 of the VAT Directive have the effect of shifting public sector activities from non-taxable to taxable and non-exempt, the self-supply bias would be removed. Insofar, the result of this option would be a shift of employment from public bodies to the private sector. Nevertheless, this would not affect the part of the public sector engaged in activities which do not qualify as economic activities, or which are exempt.

As outsourcing decisions in the covered sectors are encouraged this means that the employment in public sector entities will decline as outsourcing becomes more attractive.¹⁴⁵

¹⁴⁵ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

The increase in outsourcing will generate employment in the private sector. However, the increase in employment in the private sector which stems from outsourcing of activities from the public sector to the private sector will not suffice to cover the loss of employment in the public sector following the increase in outsourcing. This is because we expect the private sector to be more effective than the public sector, as described in chapter 4.

The results from the economic model are that public sector employment decreases by 0.17 per cent, following the introduction of the treatment of public bodies as taxable persons.

5.3.8. Efficiency in delivering public services

As far as public sector activities do not qualify as an economic activity the deletion of Article 13 of the VAT Directive would not affect the self-supply bias with respect to VAT, as the public sector entities do not only base their decisions on the economic efficiency, but take into account the particular VAT consequences, as well. For instance, by comparing two basic alternatives how to obtain inputs needed – self-supply and contracting out – the price of the second alternative is usually negatively influenced by the non-deductibility of input VAT. This often results in encouraging of internalisation¹⁴⁶ and preference of self-supply over contracting out.¹⁴⁷ In doing so, the public service entities go often the less efficient way as it has been indicated by several studies that private bodies are generally able to provide supplies of similar quality with lower costs.¹⁴⁸

On the other hand a positive impact on the efficiency in delivering public services can be expected where the deletion of Article 13 of the VAT Directive results in formerly non-taxable activities shifting to taxable and non-exempt activities, because the VAT burden would insofar, not anymore hinder efficiency gains through contracting out.

5.3.9. Impact on public revenues

The impact on public revenues highly depends on the decision of which public activities are to be treated as tax exempt according to the redesigned Article 132 of the VAT Directive. However, on a general basis it can be pointed out that the deletion of Article 13 of the VAT Directive would result in higher tax revenues provided that public bodies formerly treated as non-taxable are not exempt according to the new Article 132 of the VAT Directive and have a taxable output which exceeds their taxable input.

¹⁴⁶ C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, page 435.

¹⁴⁷ M. C. Wassenaar & R. H. J. M. Gradus (2004), 'Contracting out: The Importance of a Solution for the VAT Distortion', *CESifo Economic Studies* 2: 377-396, on page 377.

¹⁴⁸ M. C. Wassenaar & R. H. J. M. Gradus (2004), 'Contracting out: The Importance of a Solution for the VAT Distortion', *CESifo Economic Studies* 2: 377-396, on page 378.

Allowing public sector to deduct input VAT has a zero-net effect on national public revenue, meaning that the public revenues goes up by the full output taxation of these two sectors.¹⁴⁹

5.3.10. Impact on Social Security System

We expect no significant effects on social security expenses, social security contributions and regarding the fiscal balance in central/federal states. Furthermore, the impacts on prices and productivity are so small that we do not expect an impact on social security.

5.3.11. Welfare cost

Introducing the solution for treating public sectors as taxable persons will remove some distortions of competition and allow more cost efficient suppliers in waste management, postal services and broadcasting. This reduces the welfare cost associated with VAT and improves the general welfare of the EU27 population.

We have chosen to indicate the welfare effect using GDP. Our analysis, using the general equilibrium model, estimates though that the welfare gain following the introduction of the solution for treating public sectors as taxable persons is approximately 0.01 per cent of the EU27 GDP.

There are no negative effects for other businesses due to tax cascading.¹⁵⁰

5.3.12. Prices to be paid by consumers

Where formerly non-taxable activities according to Article 13 of the VAT Directive shift to taxable and are not covered by any exemption of the new Article 132 of the VAT Directive, an increase in prices can be expected. However, in this respect it must be pointed out that the ability of the respective public body to deduct incurred input VAT removes the effect of hidden VAT formerly included in the price of the public body's supply. As a consequence, depending on the circumstances of each case, a slight increase in prices should be expected. In contrast, as regards activities, which do not qualify as economic activities according to Article 9 of the VAT Directive and activities which are to be covered by the provisions of the new Article 132 of the VAT Directive, the situation of the public bodies basically remains the same (no input VAT deduction, self-supply bias). As result, no effect on the prices for consumers should be expected.

¹⁴⁹ We are aware that this system would always let charity organisations deduct input VAT, which will lead to a public revenue loss. We do not have enough detail to quantify the size of these figures.

¹⁵⁰ M.Aujean, P.Jenkins, S.Poddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No. 4, July/August 1999, pg. 146

Dr. Rita de la Feria, "The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction", INTERTAX, Volume 37, Issue 3, 2009, Kluwer Law International, The Netherlands, pg. 160

5.3.13. Tax compliance cost

As a result of a reclassification of the supplies provided for consideration, generally only two categories of the outgoing supplies exist – tax-exempt and non-exempt. This fact would lead to certain reductions of administrative and compliance costs, as the distinction only between these two VAT regimes has to be made and only one mechanism for a calculation of the amount of the deductible part of the input VAT has to be used.¹⁵¹

However, the disadvantage of current system as regards the input VAT issue would still be the complexity of methods designed for determining the deductible part of input VAT in cases where the public sector entity provides both non-exempt and tax-exempt supplies and therefore, is only entitled to a partial input VAT deduction.¹⁵² In this respect, the VAT Directive provides only very general principles and leaves it to the Member States to design convenient methods for determining the deductible part of VAT. Therefore, the national rules in this area differ significantly within the Member States and can be a source of further distortion, as the amounts of deductible input VAT can vary considerably.¹⁵³ Especially in cross-border transactions, it can generate unreasonable competition advantage, as the market operators do not act under same cost conditions.

5.3.14. Impact on charities

We expect no significant impact on charities, because they are not active in broadcasting, postal services and waste disposal.

5.3.15. Risk of circumvention

The risk of circumvention is present with this policy option alike with full taxation. Large, VAT exempt postal, broadcasting and waste disposal firms have much to lose from becoming taxable on even terms with challengers. Public administration, which has to pay VAT on these services, will have an incentive to devise payment forms which re-label services as not for consideration.

¹⁵¹ R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37 No 3, on page 159; M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', *VAT Monitor* 1999: 144-149, on page 149.

¹⁵² R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', *Intertax* 37 No 3, on page 159.

M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', *VAT Monitor* 1999: 144-149, on page 149.

¹⁵³ "It is clear that results reached based on the calculation with pro-rata will differ from the results of other methods, e.g. a method based on the "direct use" criterion or a method called "fair estimation", since for each of these methods other criteria are relevant. Member States are free to use the method of their choice to allow, respectively disallow deduction of input VAT. The deductible VAT thus ranges between 0 % and 80 % of the total input VAT." For more see C. Amand (2006), 'VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?', *International VAT Monitor*: 433-443, on page 434.

5.3.16. Impact on SMEs

The deletion article 13 policy option analysed here does not remove the incentives for self-supply in public administration, and therefore, the positive SME impact of the refund system and the full taxation system is much reduced in the deletion article 13 option. The sector specific impact of the deletion article 13 policy option on SMEs can be seen in the next section.

5.3.17 Impacts of deleting article 13 for individual sectors

In this section we focus on the impact of the deletion of article 13 policy option on individual sectors i.e. broadcasting, postal services and waste and sewage disposal. For these sectors, both the distortions on the output side and the self-supply bias disappear. Generally, the economic impacts of the policy option are small, because the sectors affected by VAT changes are small relative to the European economy. However, it should be kept in mind that for the individual sector in an individual Member State, the policy option can have an important impact. The estimated results for sectorial impact of the deletion article 13 while keeping exemptions in public interest are summarized in Table 5.10.

Table 5.10: Model results, percentage change from baseline of differentiated VAT treatment of public and private sector- Sectorial impacts

	Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest, variant 1			Deletion of Article 13 of the VAT Directive while keeping exemptions in the public interest, variant 2		
	Only broad-casting taxed	Only postal services taxed	Only waste disposal taxed	Only broad-casting taxed	Only postal services taxed	Only waste disposal taxed
Change in GDP pct. (billion Euro)	0.00 (0.29)	0.01 (0.89)	0.00 (0.09)	0.00 (0.08)	0.01 (0.67)	0.00 (0.05)
Change in public core services share of total output, pct.-points	-0.01	-0.02	0.00	-0.01	-0.02	0.00
Change in private core services share of total output, pct.-points	0.00	0.01	0.00	0.01	0.02	0.00
Change in private business services input share to pub. sec, pct.-pts.	0.00	0.06	0.01	0.00	0.05	0.01
Change in public business services input share to public sectors, pct.-points	-0.01	-0.07	-0.01	0.00	-0.06	-0.01
Change in public sector output, pct. points	-0.06	-0.17	-0.02	-0.06	-0.19	-0.02
Change in public sector employment, pct. (thousand persons)	-0.03 (14.3)	-0.12 (53.4)	-0.02 (6.6)	-0.03 (11.6)	-0.13 (57.7)	-0.01 (5.8)
Change in wages pct.	0.00	0.00	0.00	0.00	0.00	0.00
VAT rate calibration of revenue balance (billion Euro)	-0.11 (0.85)	-0.33 (2.54)	-0.05 (0.38)	0.06 (-0.46)	-0.02 (0.15)	0.00 (0.00)

Source: Copenhagen Economics based on modelling results

The table shows the results of the two variants across sectors and scenarios of the policy option, which we consider. In the first row it can be seen that the GDP impact is in the range of 0.00-0.01 per cent (€ 0.09-0.89 billion), with the higher gain comes from Postal sector. This is because broadcasting and waste disposal are already (partly) taxable and non-exempt in many Member States. In variant 2 of the option, the GDP-impact is lower than in variant 1 of the option for all sectors.

In row 2 and 3 the effects on the public and private core services' share of the economy are shown. The removal of output side distortions in postal services has a significant effect on the share of public core services, which decreases by 0.02 per cent in variant 1 and 2. In contrast, private core services' share increase by 0.01 in variant 1 and by 0.02 per cent in variant 2. As the broadcasting and waste disposal sectors (or parts of it) are already taxable and non-exempt in many Member States and hence do not see that much output distortion, introducing deletion of article 13 policy option have less impact on the share of public and private core services'.

In row 4 and 5, the impact on public sector input structure is showed. The significant structural change is seen in the postal sector compared to the broadcasting and waste and sewage disposal, since the latter two sectors have already been taxable and non-exempt to a certain extent. In the postal sector in the two variants, public sector use of private business services goes up by 0.05-0.06 per cent; while public sector use of self-supply declines by 0.06-0.07 per cent. This is driven by the fact that the postal services sector is becoming taxable and non-exempt.

In row 6 and 7 the impact on the entire public sector is shown. It should be noted, that exempt postal services are lumped together with public services in these result-tables. Most of the impact ascribed to 'public sector' therefore, in reality, comes from exempt postal services, which may very well be run by private companies. Both output and employment in the public sector go down as a result of making broadcasting, postal services and waste and sewage disposal taxable and non-exempt.

In row 9 the impact on public budgets is illustrated by the change in standard rates necessary to re-balance public budgets after introduction of taxation. Interestingly, variant 1 implies an improvement in public budgets, which allows for a decrease in standard rates, while variant 2 implies a worsening of public budgets, which requires an increase in standard rates to re-balance the budgets. The reason for this difference lies in the broadcasting sector already being taxed at standard rates in many countries. Therefore, variant 2 leads to a decrease in average VAT rates, which worsens the public budgets.

5.3.18. Distortions of competition

The deletion of Article 13 policy option, though the economy-wide effect is limited, has an impact on the level of competition between public bodies and private sector bodies in the sectors encompassed by the policy option i.e. broadcasting, postal services and waste and sewage disposal. Competition will increase much in postal services following introduction of taxation. This is because the postal services sector is largely becoming taxable and non-exempt, while broadcasting and waste and sewage disposal in comparison is already (partly) taxable and non-exempt in some Member States. It should be kept in mind, that this is not the case for all Member States.

5.3.19. Barriers to entry into existing markets

By deleting Article 13 of the VAT Directive and redesigning Article 132 of the VAT Directive, all outputs in the three sectors regardless of the supplier being public or private would be treated equally. In this respect, the VAT would not anymore prevent private competitors from entering into the three sectors, especially in the postal sector where there has been less level playing field with respect to tax treatment among different actors.

5.3.20. Level and structure of investment

The solution for treating public sectors as taxable persons would encourage public sector entities to invest, because investment becomes cheaper, this is particularly true in the postal sector.¹⁵⁴ Besides, taxable sectors who experience a more level playing field vis-a-vis their non-taxable or exempt competitors are likely to increase investment. However, the non-taxable and exempt sectors which become subject to increased competition in the final output markets may invest less because there is a risk that their markets erode.

5.3.21. Level and structure of employment

The postal sector activities where the deletion of Article 13 of the VAT Directive and adjustment of Article 132 of the VAT Directive have the effect of shifting activities from non-taxable to taxable and non-exempt, the self-supply bias would be removed. Insofar, the result of this option would be a shift of employment from public bodies/Universal Service Providers (USPs) to the private sector.

As outsourcing decisions in the covered sectors are encouraged this means that the employment in public sector entities will decline as outsourcing becomes more attractive.¹⁵⁵ The increase in outsourcing will generate employment in the private sector. However, the increase in employment in the private sector which stems from outsourcing of activities from the public sector to the private sector will not suffice to cover the loss of employment in the public sector following the increase in outsourcing. This is because we expect the private sector to be more effective than the public sector, as described in chapter 4.

The results from the economic model are that public sector employment decreases with in a range of 0.01 to 0.13 per cent in broadcasting, postal services and waste and sewage disposal following the introduction of the treatment of public bodies as taxable persons.

¹⁵⁴ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

M. Aujean, "The treatment of Government entities, non-profit organisations and other exempt bodies under a VAT: a discussion paper"; 2009, source: www.americantaxpolicyinstitute.org/research.html , pg. 3

¹⁵⁵ Christian Amand, "VAT for Public Entities and Charities – Should the Sixth Directive Be Renegotiated?", IBFD, International VAT Monitor, November/December 2006, pg. 435

In the medium to long run, private sector job creation will offset the drop in public sector employment.

5.3.22. Efficiency in delivering public services

A positive impact on the efficiency in delivering public services can be expected in postal sector where the deletion of Article 13 of the VAT Directive results in the formerly non-taxable activities shifting to taxable and non-exempt activities, because the VAT burden would insofar, not anymore hinder efficiency gains through contracting out within this sector. However, this may not be happening in broadcasting and waste and sewage disposal to that extent, as these sectors have already been (partly) treated as taxable and non-exempt in some Member States.

5.3.23. Impact on public revenues

The impact on public revenues highly depends on the decision of which public activities are to be treated as tax exempt according to the redesigned Article 132 of the VAT Directive. However, on a general basis it can be pointed out that the deletion of Article 13 of the VAT Directive would result in higher tax revenues provided that public bodies formerly treated as non-taxable are not exempt according to the new Article 132 of the VAT Directive and have a taxable output which exceeds their taxable input.

Allowing public sector to deduct input VAT has a zero-net effect on national public revenue, meaning that the public revenues goes up by the full output taxation of these two sectors.¹⁵⁶

We expect no significant effects on social security expenses, social security contributions and regarding the fiscal balance in central/federal states.

5.3.24. Impact on Social Security System

We do not expect any significant impact on the social security system because prices and productivity are not affected much by this variant.

5.3.25. Welfare cost

Introducing the solution for treating public sectors as taxable persons will remove some distortions of competition and allow more cost efficient suppliers in waste management and broadcasting. This reduces the welfare cost associated with VAT and improves the general welfare of the EU27 population.

¹⁵⁶ We are aware that this system would always let charity organisations deduct input VAT, which will lead to a public revenue loss. We do not have enough detail to quantify the size of these figures.

We have chosen to indicate the welfare effect using GDP. Our analysis, using the general equilibrium model, estimates though that the welfare gain following the introduction of the solution for treating public sectors as taxable persons is approximately 0.01 per cent of the EU27 GDP.

There are no negative effects for other businesses due to tax cascading.¹⁵⁷

5.3.26. Prices to be paid by consumers

Where formerly non-taxable activities according to Article 13 of the VAT Directive shift to taxable and are not covered by any exemption of the new Article 132 of the VAT Directive, an increase in prices can be expected. However, in this respect it must be pointed out that the ability of the respective public body to deduct incurred input VAT removes the effect of hidden VAT formerly included in the price of the public body's supply. As a consequence, depending on the circumstances of each case, a slight increase in prices should be expected. In contrast, as regards activities, which do not qualify as economic activities according to Article 9 of the VAT Directive and activities which are to be covered by the provisions of the new Article 132 of the VAT Directive, the situation of the public bodies basically remains the same (no input VAT deduction, self-supply bias). As result, no effect on the prices for consumers should be expected.

5.3.27. Tax compliance cost

As a result of a reclassification of the supplies provided for consideration, generally only two categories of the outgoing supplies exist – tax-exempt and non-exempt. This fact would lead to certain reductions of administrative and compliance costs, as the distinction only between these two VAT regimes has to be made and only one mechanism for a calculation of the amount of the deductible part of the input VAT has to be used.¹⁵⁸

However, the disadvantage of current system as regards the input VAT issue would still be the complexity of methods designed for determining the deductible part of input VAT in cases where the public sector entity provides both non-exempt and tax-exempt supplies and therefore, is only entitled to a partial input VAT deduction.¹⁵⁹ In this respect, the VAT Directive provides

¹⁵⁷ M.Aujean, P.Jenkins, S.Podddar, "A New Approach to Public Sector Bodies", IBFD, VAT Monitor, Vol. 10, No. 4, July/August 1999, pg. 146

Dr. Rita de la Feria, "The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction", INTERTAX, Volume 37, Issue 3, 2009, Kluwer Law International, The Netherlands, pg. 160

¹⁵⁸ R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', Intertax 37 No 3, on page 159; M. Aujean/P. Jenkins/S. Podddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149, on page 149.

¹⁵⁹ R. De la Feria (2009), 'The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction', Intertax 37 No 3, on page 159.

M. Aujean/P. Jenkins/S. Podddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149, on page 149.

only very general principles and leaves it to the Member States to design convenient methods for determining the deductible part of VAT. Therefore, the national rules in this area differ significantly within the Member States and can be a source of further distortion, as the amounts of deductible input VAT can vary considerably.¹⁶⁰ Especially in cross-border transactions, it can generate unreasonable competition advantage, as the market operators do not act under same cost conditions.

5.3.28. Impact on charities

We expect no significant impact on charities, because they are not active in broadcasting, postal services and waste disposal.

5.3.29. Risk of circumvention

The risk of circumvention is present with this policy option alike with full taxation. Large, VAT exempt postal, broadcasting and waste disposal firms have much to lose from becoming taxable on even terms with challengers. Public administration, which has to pay VAT on these services, will have an incentive to devise payment forms which re-label services as not for consideration.

This is possible to achieve in the case of waste disposal, where public administration can acquire or build their own waste disposal units. In broadcasting there is also possibilities for financing services by general subsidies instead of by a consideration. On the contrary, in postal services, where the outputs are very tangible and measurable, it is difficult to imagine circumvention by means of re-labelling funding from consideration to no-consideration.

5.3.30. Impact on SMEs

The deletion article 13 policy option analysed here does not remove the incentives for self-supply in public administration, and therefore, the positive SME impact of the refund system and the full taxation system is much reduced in the deletion article 13 option.

Positive effects for SMEs can be expected in waste disposal, where there are also many SMEs. In postal services, introducing a level playing field can potentially benefit SMEs, but the question is whether the national incumbents are not so strong that the SME impact will be limited. In broadcasting, we expect that the advantages of scale are so substantial that there will be a limited impact on SMEs.

¹⁶⁰ “It is clear that results reached based on the calculation with pro-rata will differ from the results of other methods, e.g. a method based on the “direct use” criterion or a method called “fair estimation”, since for each of these methods other criteria are relevant. Member States are free to use the method of their choice to allow, respectively disallow deduction of input VAT. The deductible VAT thus ranges between 0 % and 80 % of the total input VAT.” For more see C. Amand (2006), ‘VAT for Public Entities and Charities – Should the Sixth Directive be Renegotiated?’, *International VAT Monitor*: 433-443, on page 434.

5.3.31. Conclusion

The option to delete Article 13 of the VAT Directive and to modernise Article 132 of the VAT Directive would provide considerable improvement as regards legal certainty. Although some special rules are eliminated within this system, the complexity of the system remains preserved. Furthermore, problems with the classification of the supplies provided should be expected, if the borderline between taxable and tax-exempt supplies is not sufficiently clear defined.

Maybe the most considerable advantage of this option is that it does not involve a radical change of the current system. By introduction of only a slightly changed, additional costs associated with the comprehensive reform could be avoided.¹⁶¹ This factor can be of high relevancy with respect to the questionable preparedness of Member States to adopt a new legislation at the EU level. Especially, considering the fact that, from the state budget perspective, the current system has positive impacts as it enables to gain VAT revenue by taxing input prior to the final consumption stage, it can be assumed that some Member States will be rather reluctant to agree to any 'radical' changes.

In addition, from a political point of view, there could be also found some arguments supporting existence of the special VAT regime for some supplies¹⁶², such as continuity in tax practices after introduction of the current VAT system, avoidance of conceptual problems created by 'difficult to tax' transactions¹⁶³ or possible price reductions which are in line with distributional targets of e.g. merit goods.

However, a major disadvantage would be the still-existing non-deductibility of input VAT in respect of non-economic activities of the public sector, leaving the problem of self-supply bias. Where former non-taxable activities of Article 13 of the VAT Directive are to be covered by an exemption of the new extended Article 132 of the VAT Directive, the problem of irrecoverable input VAT would persist. This also applies to the exemption of the current Article 132 of the VAT Directive, which are to be included in the modernised version. The non-deductible input VAT will still generate so-called tax cascading in all cases where the supply provided by the public body is only an intermediate step in the production or distribution chain, in particular where

¹⁶¹ P. Gendron (2005) 'Value-Added Tax Treatment of Public Sector Bodies and Non-Profit Organisations: A Developing Country Perspective', ITP Paper 0514, URL:<http://www.rotman.utoronto.ca/riib/> (last checked: 11 January 2011), on page 12.

¹⁶² M. C. Wassenaar & R. H. J. M. Gradus (2004), 'Contracting out: The Importance of a Solution for the VAT Distortion', CESifo Economic Studies 2: 377-396, on page 381.

¹⁶³ For instance, taxation of supplies by public bodies for their provision no consideration is provided.

the public body cannot be regarded as a final consumer of particular purchase.¹⁶⁴ Such results are conceptual incoherent with the general principles of the EU VAT system, especially it is against the principle of fiscal neutrality of VAT, and it causes erosion of VAT base.

¹⁶⁴M. Aujean/P. Jenkins/S. Poddar (1999), 'A new approach to public sector bodies', VAT Monitor 1999: 144-149, page 146.

| REFERENCES

- Aghion, P., Blundell, R., Griffith, R., Howitt, P., Prantl, S. (2004), *Entry and Productivity Growth: Evidence from micro-level panel data*, Journal of the European Economic Association, Papers and Preceedings 2 s. 265-276
- Amand C. (2006), VAT for Public Entities and Charities – Should the Sixth Directive BE Renegotiated? *International VAT Monitor* 433-443
- Assarsson, B. (2004), Consumer demand and labour supply in Sweden 1980-2003. Working paper.
- Aujean, M. et al. (1999), "A New Approach to Public Sector Bodies", 10 *International VAT Monitor* 144 (1999).
- Banks, J., R. Blundell and A. Lewbel (1997), Quadratic Engel Curves and Consumer Demand. *The Review of Economics and Statistics* 79, pp. 527-539.
- Bel G. & Fageda X. (2009), Factors explaining local privatization: a meta-regression analysis, *Public Choice* 139: 105-119
- Bergman (2008), Offentlig upphandling och offentliga inköp
- Blundell, R., Griffith, R., van Reenen, J. (1999), *Market Share, Market Value and Innovation in a Panel of British Manufacturing Firms*, *Review of Economic Studies* nr. 66, s. 529-554
- Browning, M. (1993), Estimating micro parameters from macro data alone: some pessimistic evidence. *Ricerche Economiche* 47, pp. 253-267
- Browning, M. (1998), Modeling commodity demands and labour supply with m-demands. Working paper
- Bye, B., B. Strøm and T. Åvidtsland (2004), Welfare Effects of VAT Reforms: A General Equilibrium Analysis. Statistics Norway Research Department Discussion paper No. 343.

- CGI(2004), Upstream goes Outside: A business case for finance and accounting outsourcing in the upstream oil and gas sector
- Cnossen, S. (2008): *Value-Added tax and Excises: Commentary*. In: IFS report for the Commission on Reforming the Tax System for the 21st Century.
- Copenhagen Economics (2007), "Study on reduced VAT applied to goods and services in the Member States of the European Union", for the EU Commission, DG TAXUD.
- Copenhagen Economics (2010): *Main developments in the postal sector (2008-2010)*.
- Copenhagen Economics (2011): *VAT in the public sector and exemptions in the public interest*.
- De la Feria, R. (2009), "The EU VAT Treatment of Public Sector Bodies: Slowly Moving in the Wrong Direction", *Intertax* 37 No 3, 148-165
- Dijkgraaf E. & Gradus R.H.J.M. (2003): Cost Savings of Contracting Out Refuse Collection, *Empirica*, 30, 149-161
- Dimaranan, B.V., R.A. McDougall and T.W. Hertel (1997): Behavioral Parameters. Chapter 20 in "GTAP 6 data base documentation", www.gtap.agecon.purdue.edu
- Direction du Budget (2010):
- Domberger, S., S. Meadowcroft and D. Thompson (1986), "Competitive tendering and efficiency: the case of refuse collection", *Fiscal Studies* 7, 69–87.
- Erkel-Rousse, Helene and Daniel Mirza, 2002. "Import Price Elasticities: Reconsidering the Evidence," *Canadian Journal of Economics*, v35, n2, pp 282-306.
- Ernst & Young (1998), Value added tax. A Study on the application of VAT to the non-profit sector and Public Bodies, study for the European Commission, DG TAXUD.
- European Commission (2006): Consultation Paper on Modernising Value Added Tax Obligations for Financial Services and Insurances

Eurostat (2000), Structural Business Statistics – Theme 4 (Industry, Trade and Services) in New Cronos database. <http://europa.eu.int/comm/eurostat>.

Ferris, M. C. and T. S. Munson (2000). “Complementarity problems in GAMS and the PATH solver”, *Journal of Economic Dynamics and Control* 24,165-188.

Finansministeriet (2003), Budgetredegørelse 2003

Gale, W.G. & Holtzblatt J. (2002): The Role of Administrative Factors in Tax Reform: Simplicity, Compliance, and Administration, in *US Tax Reform in the 21st Century*, eds R. Zodrow & P. Mieszkowski (Cambridge: Cambridge University Press, 2002), 179-214

Gendro, P.-P. (2005), Value-added tax treatment of public sector bodies and non-profit organisations: A developing country perspective, ITP Paper 514 (2005), 5.

Gendron, P.- P. (2009), “How Should the U.S. Treat Government Entities, Nonprofit Organisations, and other Tax-Exempt Bodies under a VAT?” Final Draft: 27 May 2009, available at <http://www.americantaxpolicyinstitute.org>

Gendron, P.-P. (2010), “VAT treatment of public services bodies: The Canadian model”, a presentation held in Oxford, 15-16 april 2010.

Geroski, P. A., (1990), *Innovation, Technological Opportunity, and Market Structure*, Oxford Economic Papers, Vol. 42(3) Vol. 42(3), s. 586-602

HMG(2009), Benchmarking the Back Office: Central Government

HM Treasury. Operational efficiency programme: final report. 2009. www.hm-treasury.gov.uk/vfm_operational_efficiency.htm.

Indenrigs- og Sundhedsministeriet (Danish Ministry of Domestic Affairs) (2004): ”Et nyt udligningssystem - Indenrigs- og Sundhedsministeriets Finansieringsudvalg - Betænkning nr. 1437”. Available at: http://www.im.dk/publikationer/udligningssystem_1/kap12.htm

- Jaumotte, F., Pain, N. (2005), *Innovation in the Business Sector*, OECD Economics Department Working Papers, nr. 459, OECD Publishing
- Kakabadse et. Al (2005), Trends in Outsourcing: Contrasting USA and Europe
- Kitchen, H.M. (1976), "A statistical estimation of an operating cost function for municipal refuse collection", *Public Finance Quarterly* 4, 43–72.
- Konkurrencestyrelse(2009), Klar til Konkurrence i Kommunerne
- KPMG (2005): 'Summary Final Report on the Expert Opinion "PPP in Public Construction Projects – VAT Refund System" for the Federal Ministry of Transportation, Construction, and Housing (available at www.bmvbw.de)
- Lentz, B. F. (2003), *New estimates of economies of scale and scope in higher education*, Southern Economic Journal
- Letho (2005), On Publicly Provided Services – Public or Private Production
- Levin, R, Cohen, W, Mower, D.(1985)
- Mas-Colell A., M. Whinston, J. Green (1995), *Microeconomic Theory*, Oxford University Press, New York 1995
- Mause, K. (2009): "Contracting out the state in the OECD World: What do we (not) know?", *Paper prepared for FoJuS-Panel, DVPW-Kongress 2009 Kiel*.
- Morgan, L. and Robinson, J. (2009): "VAT and Public Bodies", *The Tax Journal*, Monday 29 June, 2009.
- Nemeth, G., Szabo, L., and J.C. Ciscar (2008): "Estimation of Armington elasticities in an energy CGE model," Working Paper.
- Nesta (2009), The innovation index - Measuring the UK's investment in innovation and its effects

OECD (2001), "Measuring Globalisation: The role of multinationals in OECD economies - Volume II: Services, OECD, Paris.

OECD (2008), "Programs to reduce the administrative burden of tax regulations in selected countries," Information note, 22 January 2008.

Ohlsson, H. (2003): *Ownership and production costs – choosing between public production and contracting out*, Department of Economics, Göteborg University

Paldam (2001), Public Versus Private Production and Economies of Scale

Pommerehne, W.M. and B.S. Frey (1977), "Public versus private production efficiency in Switzerland: a theoretical and empirical comparison", *Urban Affairs Annual Review* 12, 221–241.

Reeves, E. and M. Barrow (2000), "The impact of contracting out on the costs of refuse collection services: The case of Ireland", *Economic and Social Review* 31, 129–150.

Revenue Commissioners (2005): "VAT implications for Public Private Partnerships", *Central Guidance Note No. 5*, November 2005.

Rutherford, Thomas F. (1999), "Applied General Equilibrium Modeling with MPSGE as a GAMS Subsystem: An Overview of the Modeling Framework and Syntax", *Computational Economics* 14, 1-46.

SOU (1999): *Betänkandet Kommunkontosystemet och rättvisan – momsen, kommunerna och konkurrensen*, Statens Offentliga Utredningar, Regeringskansliet, Finansdepartementet, Dnr 3/00.

SPD (2009)

Statistic Denmark; Consumer survey (2001-2003) www.statistikbanken.dk

Statistics Denmark (2010)

Stevens, B.J. (1978), "Scale, market structure and the cost of refuse collection", *Review of Economics and Statistics* 60, 438–448.

Udbudsråder (2010a), Analyse af Barrierer for Konkurrenceudsættelse i den Offentlige Sektor

Udbudsrådet (2010b), Erfaringer med Konkurrence om Offentlige Opgaver – overblik over eksisterende dokumentation af effekterne

Wassenaar M. C. & Gradus R. H. J. M. (2004): Contracting out: The Importance of a Solution for the VAT Distortion, CESifo Economic Studies 2, 377-396

Wassenaar, M.C. & Gradus, R.H.J.M. (2001): Contracting out: The importance of a level playing field, *Research memorandum 0108*, Erasmus University Rotterdam.

Wassenaar, M.C., et al. (2007): *Contracting out: Dutch municipalities reject the solution for the VAT-distortion*, manuscript.

Yang, X. (2005): VAT Treatment of Government Procurement: A Comparative Analysis, *International VAT Monitor* 5, 342-348

World Bank and PwC (2011): *Paying Taxes 2011 – the Global Picture*.

ZEW (2009): Productivity Effects of Business Process Outsourcing A Firm-level Investigation Based on Panel Data. Discussion Paper No. 09-088.

Chapter 6 APPENDIX

6.1. VAT RATES

Table 6.1: VAT rates charged on outputs for consideration as modelled in full taxation option, variant 1, per cent

	AU T	BE L	BG R	CY P	CZ E	DN K	ES T	FI N	FRA U	DE U	GR C	HU N	IRL	ITA	LV A	LT U	LU X	ML T	NL D	PO L	PR T	RO M	SV K	SV N	ES P	SW E	GB R
Exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private Broadcasting	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public cultural services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private cultural services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private waste disposal	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public hospitals	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private hospitals	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public education	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private education	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Table 6.2: VAT rates charged on outputs for consideration as modelled in full taxation option, variant 2, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Non-exempt postal supply	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public Broadcasting	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	4	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private Broadcasting	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	4	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public cultural services	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private cultural services	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private waste disposal	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public hospitals	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private hospitals	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public education	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private education	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Table 6.3: Cost of input VAT for services delivered against a consideration as modelled in full taxation option per cent

	AU	BE	BG	CY	CZ	DN	ES	FI	FRA	D	GR	HU	IR	IT	LV	LT	LU	ML	NL	PO	PR	RO	SV	SV	ES	SW	GB		
	T	L	R	P	E	K	T	N		E	C	N	L	A	A	U	X	T	D	L	T	M	K	N	P	E	R		
Public postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Public Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	20	21	20	15	20	0	20	0	19,6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0	0	0
Private postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: A zero does not imply a zero-rate, but that the sector is exempt or non-taxable.

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Table 6.4: VAT rates charged on outputs as modelled in refund system option, both variants, per cent

	AU	BE	BG	CY	CZ	DN	ES	FI	FRA	DE	GR	HU	IRL	ITA	LV	LT	LU	ML	NL	PO	PR	RO	SV	SV	ES	SW	GB
	T	L	R	P	E	K	T	N	U	U	C	N		A	A	U	X	T	D	L	T	M	K	N	P	E	R
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	10	21	0	0	0	25	0	23	7	0	0	0	0	0	22	0	3	0	0	0	23	0	0	0	0	0	0
Private Broadcasting	10	21	20	15	20	25	20	23	7	19	13	27	23	10	22	21	3	18	19	8	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	21	0	0	0	25	0	23	0	0	0	27	13.5	0	22	0	3	0	0	0	0	24	20	8.5	0	25	0
Private waste disposal	10	21	20	10	14	25	20	23	19.6	19	13	27	13.5	15.5	22	21	3	18	19	8	14.5	24	20	8.5	8	25	10
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Note: A zero does not imply a zero-rate, but that the sector is exempt or non-taxable.

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Table 6.5: VAT paid on inputs, as modelled in refund system option, variant 1, per cent

	AU	BE	BG	CY	CZ	DN	ES	FI	FRA	DE	GR	HU	IRL	ITA	LV	LT	LU	ML	NL	PO	PR	RO	SV	SV	ES	SW	GB
	T	L	R	P	E	K	T	N		U	C	N		A	A	U	X	T	D	L	T	M	K	N	P	E	R
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: A zero does not imply a zero-rate, but that the sector is exempt or non-taxable.

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Table 6.6: VAT paid on inputs, as modelled in refund system option, variant 2, per cent

	AU T	BE L	BG R	CY P	CZ E	DN K	ES T	FI N	FRA U	DE U	GR C	HU N	IRL	ITA	LV A	LT U	LU X	ML T	NL D	PO L	PR T	RO M	SV K	SV N	ES P	SW E	GB R
Exempt postal supply	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	20	15	20	0	20	0	0	19	23	27	23	21	0	21	0	18	19	23	0	24	20	20	18	25	20
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public waste disposal	0	0	20	15	20	0	20	0	19,6	19	23	0	0	21	0	21	0	18	19	23	23	0	0	0	18	0	20
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: A zero does not imply a zero-rate, but that the sector is exempt or non-taxable.

Source: Copenhagen Economics, KPMG AG and DGTAXUD

Table 6.7: VAT rates charged on outputs as modelled in Deletion Article 13 scenario, variant 1, per cent

	AU	BE	BG	CY	CZ	DN	ES	FIN	FR	DE	GR	HU	IRL	ITA	LV	LT	LU	ML	NL	PO	PR	RO	SV	SV	ES	SW	GB
	T	L	R	P	E	K	T		A	U	C	N		A	U	X	T	D	L	T	M	K	N	P	E	R	
Exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private Broadcasting	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private waste disposal	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.8: VAT rates charged on outputs as modelled in Deletion Article 13 scenario, variant 2, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Non-exempt postal supply	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public Broadcasting	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	4	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private Broadcasting	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	4	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Private waste disposal	10	6	9	5	14	5	9	9	5.5	7	6.5	5	9	10	12	5	6	5	6	5	6	5	10	8.5	8	6	5
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.9: VAT paid on inputs in Deletion Article 13 scenario, both variants, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	0	0
Private cultural services	20	0	20	0	0	25	0	0	0	19	0	27	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public business services	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Private business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private hospitals	0	21	20	15	20	25	20	23	19.6	19	0	27	23	21	22	0	15	18	0	0	0	24	20	20	18	25	20
Public education	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private education	20	21	20	15	20	25	20	0	19.6	19	23	27	23	21	22	0	15	18	19	23	23	24	20	20	18	0	20
Public administration	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.10: VAT rates charged on outputs variant 1, Deletion Article 13 scenario, only broadcasting, standard rates assumed, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private Broadcasting	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	21	0	0	0	25	0	23	0	0	0	27	13.5	0	22	0	3	0	0	0	0	24	20	8.5	0	25	0
Private waste disposal	10	21	20	10	14	25	20	23	19.6	19	13	27	13.5	15.5	22	21	3	18	19	8	14.5	24	20	8.5	8	25	10
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.11: VAT rates charged on outputs variant 2, Deletion Article 13 scenario, only broadcasting, standard rates assumed, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	4	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Private Broadcasting	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	4	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Public cultural services	0	0	0	0	0	12,5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12,5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	21	0	0	0	25	0	23	0	0	0	27	13,5	0	22	0	3	0	0	0	0	24	20	8,5	0	25	0
Private waste disposal	10	21	20	10	14	25	20	23	19,6	19	13	27	13,5	15,5	22	21	3	18	19	8	14,5	24	20	8,5	8	25	10
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.12: VAT paid on inputs in Deletion Article 13 scenario, only broadcasting, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	20	21	20	15	20	12.5	20	23	19.6	19	23	0	23	21	22	21	15	18	19	23	23	24	20	20	18	0	0
Private cultural services	20	0	20	0	0	25	0	0	0	19	0	27	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public business services	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Private business services	20	0	20	0	0	12.5	0	0	0	19	0	0	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public waste disposal	0	0	20	15	20	0	20	0	19.6	19	23	0	0	21	0	21	0	18	0	23	23	0	0	0	18	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private hospitals	0	21	20	15	20	25	20	23	19.6	19	0	27	23	21	22	21	15	18	0	0	0	24	20	20	18	25	20
Public education	20	21	20	15	20	25	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private education	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public administration	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.13: VAT rates charged on outputs, Deletion Article 13 scenario variant 1, only waste disposal, standard rates assumed, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	10	21	0	0	0	25	0	23	7	0	0	0	0	0	22	0	3	0	0	0	23	0	0	0	0	0	0
Private Broadcasting	10	21	20	15	20	25	20	23	7	19	13	27	23	10	22	21	3	18	19	8	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Private waste disposal	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.14: VAT paid on output in Deletion Article 13 scenario variant 2, only waste disposal, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	10	21	0	0	0	25	0	23	7	0	0	0	0	0	22	0	3	0	0	0	23	0	0	0	0	0	0
Private Broadcasting	10	21	20	15	20	25	20	23	7	19	13	27	23	10	22	21	3	18	19	8	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12,5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12,5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	10	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Private waste disposal	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	10	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.15: VAT paid on inputs in Deletion Article 13 scenario, only waste disposal, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	20	15	20	0	20	0	0	19	23	27	23	21	0	21	0	18	0	23	0	24	20	20	18	25	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	20	21	20	15	20	12,5	20	23	19,6	19	23	0	23	21	22	21	15	18	19	23	23	24	20	20	18	0	0
Private cultural services	20	0	20	0	0	25	0	0	0	19	0	27	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public business services	20	21	20	15	20	0	20	0	19,6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Private business services	20	0	20	0	0	12,5	0	0	0	19	0	0	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	21	20	15	20	0	20	0	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private hospitals	0	21	20	15	20	25	20	23	19,6	19	0	27	23	21	22	21	15	18	0	0	0	24	20	20	18	25	20
Public education	20	21	20	15	20	25	20	0	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private education	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public administration	20	21	20	15	20	0	20	0	19,6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.16: VAT rates charged on outputs variant 1, Deletion Article 13 scenario, only postal services, std. rates assumed per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Non-exempt postal supply	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public Broadcasting	10	21	0	0	0	25	0	23	7	0	0	0	0	0	22	0	3	0	0	0	23	0	0	0	0	0	0
Private Broadcasting	10	21	20	15	20	25	20	23	7	19	13	27	23	10	22	21	3	18	19	8	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12.5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12.5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	21	0	0	0	25	0	23	0	0	0	27	13.5	0	22	0	3	0	0	0	0	24	20	8.5	0	25	0
Private waste disposal	10	21	20	10	14	25	20	23	19.6	19	13	27	13.5	15.5	22	21	3	18	19	8	14.5	24	20	8.5	8	25	10
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rest of economy	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.17: VAT rates charged on outputs variant 2, Deletion Article 13 scenario, only postal services, std. rates assumed per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	10	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Non-exempt postal supply	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	10	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Public Broadcasting	10	21	0	0	0	25	0	23	7	0	0	0	0	0	22	0	3	0	0	0	23	0	0	0	0	0	0
Private Broadcasting	10	21	20	15	20	25	20	23	7	19	13	27	23	10	22	21	3	18	19	8	23	24	20	20	18	25	20
Public cultural services	0	0	0	0	0	12,5	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private cultural services	0	6	0	5	14	12,5	20	9	7	0	13	27	0	0	0	21	3	5	6	8	13	9	0	0	0	6	0
Public business services	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private business services	20	21	20	15	20	25	20	23	19,6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public waste disposal	10	21	0	0	0	25	0	23	0	0	0	27	13,5	0	22	0	3	0	0	0	0	24	20	8,5	0	25	0
Private waste disposal	10	21	20	10	14	25	20	23	19,6	19	13	27	13,5	15,5	22	21	3	18	19	8	14,5	24	20	8,5	8	25	10
Public hospitals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private hospitals	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Public education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Private education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public administration	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	10	12	5	6	5	6	5	6	5	10	8,5	8	6	5
Rest of economy	10	6	9	5	14	5	9	9	5,5	7	6,5	5	9	10	12	5	6	5	6	5	6	5	10	8,5	8	6	5

Source: Copenhagen Economics, KPMG AG and DGTAXUD.

Table 6.18: VAT paid on inputs in Deletion Article 13 scenario, only postal services, per cent

	AUT	BEL	BGR	CYP	CZE	DNK	EST	FIN	FRA	DEU	GRC	HUN	IRL	ITA	LVA	LTU	LUX	MLT	NLD	POL	PRT	ROM	SVK	SVN	ESP	SWE	GBR
Exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-exempt postal supply	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Broadcasting	0	0	20	15	20	0	20	0	0	19	23	27	23	21	0	21	0	18	0	23	0	24	20	20	18	25	0
Private Broadcasting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public cultural services	20	21	20	15	20	12.5	20	23	19.6	19	23	0	23	21	22	21	15	18	19	23	23	24	20	20	18	0	0
Private cultural services	20	0	20	0	0	25	0	0	0	19	0	27	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public business services	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Private business services	20	0	20	0	0	12.5	0	0	0	19	0	0	23	21	22	0	0	0	0	0	0	0	20	20	18	0	20
Public waste disposal	0	0	20	15	20	0	20	0	19.6	19	23	0	0	21	0	21	0	18	0	23	23	0	0	0	18	0	0
Private waste disposal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Public hospitals	0	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private hospitals	0	21	20	15	20	25	20	23	19.6	19	0	27	23	21	22	21	15	18	0	0	0	24	20	20	18	25	20
Public education	20	21	20	15	20	25	20	0	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	0
Private education	20	21	20	15	20	25	20	23	19.6	19	23	27	23	21	22	21	15	18	19	23	23	24	20	20	18	25	20
Public administration	20	21	20	15	20	0	20	0	19.6	19	23	27	23	21	22	21	15	18	0	23	23	24	20	20	18	0	0
Rest of economy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Copenhagen Economics, KPMG AG and DGTAXUD.