

Study on the feasibility of alternative methods for improving and simplifying the collection of VAT through the means of modern technologies and/or financial intermediaries

Executive summary – 20 September 2010

Executive Summary

1. This Study explores the feasibility of alternative methods for improving and simplifying the collection of VAT by means of modern technologies and/or financial intermediaries. The current collection model is based on the following processes:

- the purchaser pays VAT to the supplier (taxable person), mostly together with payment for the goods or services;
- the supplier collects the VAT on behalf of the tax authority;
- the supplier files a VAT return and makes a balance between VAT collected and VAT deductible. Thereafter, the supplier should pay the balance to the tax authority on a regular basis.

2. Inherent in this process is the fact that the tax authorities mostly verify the correct VAT treatment of transactions ex post, i.e. once the taxable person has filed a VAT return.

3. The current collection model brings with it a VAT Gap due to e.g. VAT fraud, insolvencies, mistakes by the taxable persons in the VAT return and VAT avoidance schemes. Desk research shows that the VAT Gap for 2009 can be cautiously estimated at 6,9% of GDP and 12% of total VAT liability in the EU-27. This means that, in the EU-27, a total of EUR 118,8 billion has according to those estimates not been collected by the tax authorities in 2009.

4. This Study examines models to improve and simplify the collection of VAT and/or the audit of transactions. The models in this Study only look at modifying the operational VAT collection process. They do not alter any of the fundamental principles of the VAT system (e.g. time of supply, reverse charge).

5. The Study contains three phases:

- phase 1: designing of the alternatives;
- phase 2: detailed description of the models selected by the Commission Steering Group;
- phase 3: qualitative and quantitative assessment.

6. In order to deliver this Study, we worked with two groups of experts, a Multidisciplinary Core Team and a Global Multidisciplinary Expert Panel.

7. The Multidisciplinary Core team consisted of Ine Lejeune, who acted as the Project Leader and of Inge Cools, Luc Hendrikx and Bert Mesdom, who acted as experts in respectively impact assessments, clearing and payment models and VAT. Bert Mesdom also acted as the project manager for this Study.

8. The Global Multidisciplinary Expert Panel provided input in each Phase of the Study. Throughout the Study, the Global Multidisciplinary Expert Panel assured the robustness of the methodology, data collection, assumptions and conclusions. The Experts involved in this Study are Peter De Bley, Stephen Dale, Rudy Hoskens, Mark Howard, Peter Merrill, Marc van der Graaf and Ingvar Van Droogenbroeck.

9. In addition to these two groups of experts, we also relied on the global network of Indirect Tax and IT specialists of PricewaterhouseCoopers.

10. Equally so a Commission Steering Group was appointed. This Steering Group provided input and challenged findings where needed on a periodical basis.

11. In Phase 1 of this Study, 14 alternatives were considered:

- alternative 1 – Automated split payment – Blocked VAT bank account at the level of the automated clearing house;
- alternative 2 – Automated split payment – Blocked VAT bank account at the level of the taxable person's bank;
- alternative 3 – Automated split payment – Blocked VAT bank account at level of the tax authority's bank;
- alternative 4 – Manual split payment;
- alternative 5 – Automated split payment in the case of credit card payments;
- alternative 6 – Central VAT monitoring database;
- alternative 7 – Central VAT monitoring through direct access by the tax authority to the taxable person's system;
- alternative 8 – Transaction and VAT payment monitoring at the level of the automated clearing house (enriched data);
- alternative 9 – Transaction and VAT payment monitoring at the level of the bank (enriched data);
- alternative 10 – Credit card VAT payment monitoring;
- alternative 11 – Standard Audit File for Tax;
- alternative 12 – Certified VAT service provider;
- alternative 13 – Certified VAT software system;
- alternative 14 – Certified taxable person.

12. For each alternative we developed a process description which have been reviewed by the Commission Steering Group and the Multidisciplinary Expert Panel. These alternatives were evaluated against the OECD criteria for tax systems. Based on this evaluation, four alternatives were selected for further analysis. These four alternatives (subsequently described as "*models*") focus on:

- a different way of collecting VAT through split payments made by purchasers of the goods and services (split payment model);

- a better and quicker monitoring of VAT positions through a central VAT monitoring database of e-invoice data (central VAT monitoring database model);
- a better and quicker monitoring of VAT positions through standard audit files for tax that are available in data warehouses (data warehouse model);
- a qualitative method for risk profiling using certification of taxable persons (certified taxable person model).

13. Each model focuses on different aspects of the VAT collection process and applies to different segments of taxable transactions. Furthermore, the suggested or feasible scope of the models is different (e.g. B2B only or both B2B and B2C).

14. Hence, it is not possible to rank the four models absolutely in terms of costs and benefits as their scopes differ and the benefits they might generate are different, and even complementary. The aim of studying the costs and benefits of each of the models is to learn about the opportunities they provide in reducing the VAT Gap and to explore the conditions under which they can be made to work most efficiently.

15. The cost/benefit analysis examines the direct, incremental costs and benefits of introducing each of the four models compared to the current system. Therefore, the Net Present Value (NPV) of both the investment cost and the recurring, operational cost for all the parties involved (the taxable person, the tax authority, and the tax authority's bank) is compared to the NPV of the benefits in terms of potential VAT Gap reduction¹. If the balance is positive, it means that, in the long run, the model will pay for itself. Of course, initial pre-financing will be required, as benefits will only accrue once implementation has been achieved.

16. In order to study the direct effects of different implementation strategies, the NPVs of each model have been calculated under three alternative implementation scenarios:

- the 6+21 scenario: the implementation is piloted in six Member States and, after an evaluation phase, is implemented simultaneously in the other 21 Member States;
- the big bang scenario: implementation takes place simultaneously in all Member States;
- the 6+7+7+7 scenario: the model is implemented gradually, with more Member States implementing it each year.

¹ The benefits only include direct earn-back effects by improved VAT recovery (caused by the reduction of different types of VAT fraud). Indirect earn-back effects, such as reduction of administrative burden, have not been taken into account in the calculation as they do not represent a direct cash flow that can be used to finance the investments.

17. The time frame considered in the assessment is 2011-2038. Each scenario takes an equal preparatory phase of 4 years (2011-2015) into account in which the legislative process takes place at the European level. From 2016 the models are implemented in the Member States according to the different scenarios. As in most scenarios the models will be fully operational from 2020 or 2024, this allows for a proper review of the way costs develop over time under the various scenarios and models. We assume that the benefit in terms of a reduction of the VAT Gap can only be expected when all Member States have fully implemented the model. We do this to e.g. account for the lead time of the investment and the uncertainty on the movements of fraudsters and fraud patterns in the EU-27.

18. In order to compare the incremental costs and benefits of the new models under the three scenarios, data on the current situation are needed and the following questions need to be resolved:

- how many taxable persons are there in the EU-27?
- how many invoices and payments do they generate (B2B and B2C)?
- how many B2B and B2C transactions are there?
- how many VAT returns are filed in the EU-27?

19. The desk research carried out during this Study shows that this data is not readily available and that different sources often state widely varying figures.

20. In order to be able to calculate the NPV for the four models, numerous assumptions needed to be made and numbers have been extrapolated or recalculated. One of the important recommendations of this Study relates to the reliability of fundamental data on the current VAT system. In order to conduct a complete feasibility study for a given model, much more complete and accurate data needs to be available and the cause-and-effect relationships between certain figures need to be studied in greater detail. Issues that need to be resolved include:

- how many businesses account for what share of B2B and B2C transactions?
- are payments for B2B transactions always made by electronic funds transfer (EFT) or do other payment methods also have an important share in B2B trade?
- which proportions of the VAT Gap can be explained by which causes? What is the scope of a given fraud mechanism? What kinds of businesses (B2B or B2C) and what kinds of payments (e.g. electronic funds transfer, credit card, and cash) are involved? What involvement do businesses that are under the VAT registration threshold have in the various fraud schemes?
- what is the magnitude of the VAT Gap caused by each type of fraud? And how many taxable persons are involved?

21. A far more solid understanding of these issues will lead to a far more balanced evaluation of the way models can help address the existing problems. It will also provide a better appreciation of the investment that would be justified in order to combat fraud and close the VAT Gap.

22. Taking into account these data collection issues and assumptions, the conclusions and recommendations should be read with extreme caution.

23. Based on the limited data available at the present time, we can state that an overall reduction in the VAT Gap by 10% two years after implementation of a model would generate an NPV of EUR 150 billion over the period 2016-2038. This benefit justifies an investment in new technology and an alteration in how VAT is collected.

24. The more fundamental questions are: which model will be most effective in combating specific parts of the VAT Gap? And how it can be implemented cost-efficiently? These questions have generated the following conclusions for each of the four models.

Conclusions and Recommendations

25. The conclusions for the four models and the rough estimations of costs and benefits are only useful in so far as:

- the model(s) chosen is (are) obligatory for all Member States and the taxable persons. If this is not the case, it can be expected that fraudsters are likely to operate in those Member States that do not impose the model thus shifting the VAT Gap from one Member State to another. This is why in the three scenarios we only take the benefits into account as soon as the model is implemented in all 27 Member States;
- the implementation of the model (obligation, technical requirements, systems,...) is exactly the same, i.e.100% harmonised for all Member States.

The split payment model

26. The split payment model is a model in which the purchaser pays the VAT to a blocked VAT bank account which can only be used by the supplier for paying VAT to his suppliers' blocked VAT bank account. The advantage of this model is that, in an early stage of the VAT collection process, the VAT collected is physically transferred to a blocked VAT bank account with the tax authorities' bank. This model allows the tax authorities to monitor and block funds on the VAT bank accounts and prevent taxable persons from disappearing with VAT funds paid to them.

27. A high-level cash-flow impact assessment ascertained that clearly, for certain taxable persons, the split payment model will not have a significant

impact whereas, for others, it may have a significant impact. However, a negative effect may be compensated partially if the tax authority would refund VAT much quicker than under the current VAT model if some compliance costs would be reduced by providing a pre-filled VAT return for taxable persons with a blocked VAT bank account.

28. The benefits of the model are great, as the tax authority can be sure that it will receive all the VAT collected on B2B transactions. This benefit will, however, only be realised to its fullest extent, if the model is made mandatory, the chargeable event is for all supplies always at the time of payment and a large number of B2B transactions are settled using electronic funds transfer (EFT). It is currently unknown how many B2B payments are settled using EFT versus in cash or with credit or debit cards. If additional research shows that a large number of transactions are paid using credit or debit cards, or even cash, the benefits will dwindle and additional evasion could arise by businesses that start using alternative payment channels instead of EFT.

29. The model requires a high initial investment and a longer implementation phase as banks will have to adapt their payment facilities, such as online banking programs. According to the implementation time frame the timing of the costs and benefits will differ. Under a big bang scenario the implementation could be complete in the year 2020. The impact of this model is comparable to the implementation of the SEPA regulation throughout Europe.

30. In this model there is a limited direct investment required by the taxable person. There is however a considerable operational cost as the taxable person needs to manage this additional blocked VAT bank account. Apart from investments by taxable persons' banks plus the additional clearing costs that will arise for each payment, the model also requires a large investment programme by the tax authorities' banks, which will be in charge of managing the blocked VAT accounts, and by the tax authorities themselves, who will have to monitor each taxable person's VAT current account and (possibly) generate pre-filled VAT returns.

31. The costs of these kinds of applications will vary from Member State to Member State as the requirements will depend on the maturity of existing technology, the required level of integration with other legacy systems and the level of decentralisation of the tax authority in question.

32. We calculated the NPV in 2015 (before the first year of investment) of the costs and benefits in each scenario for the entire time frame 2016-2038. Under the big bang scenario the minimal NPV of the split payment model, in terms of the expected VAT Gap reduction minus the estimated investment and operational costs is estimated to be EUR 966 billion.

33. The cost/benefit analysis shows that this model has a high minimal cost, which is mainly caused by the requisite level of investment, and a relatively low maximal cost, as there are no additional investments to be made as soon as the system is up and running (unlike the other models which require investments across the time frame per additional taxable person).

34. An issue which needs to be addressed when moving forward with the split payment model is who will bear the costs. As the benefit of a VAT Gap reduction is mostly in the interest of the tax authority it raises the question whether certain incentives should be considered to support the banks and taxable persons when implementing the model. In this view the support would translate the potential benefit to the tax authority into incentives for the taxable person and the banks in order to smoothen the implementation process.

The central VAT monitoring database model

35. This model can only work if e-invoicing is made obligatory for B2B transactions² and if the data contained in e-invoices is actively mined by the tax authorities. The main cost component of this model is the investment by taxable persons to change from paper invoicing to e-invoicing. Additional operational costs will include the cost of the data transfers to the central VAT monitoring database and the cost of maintaining and mining large volumes of data by the tax authorities. According to the implementation time frame, the timing of the costs and benefits will differ. Under a big bang scenario the implementation could be complete in the year 2018.

36. One benefit of this model is that the tax authorities gain access to information on sales transactions at a very early stage, i.e. at the time the invoice is issued. However, the tax authority will not be able to block VAT at the time of payment, as it could in the split payment model. Hence, the recovery rate in cases of detected VAT fraud is not always guaranteed.

37. We calculated the NPV in 2015 (before the first year of investment) of the costs and benefits in each scenario for the entire time frame 2016-2038. Under the big bang scenario the minimal NPV of the central VAT monitoring database model, in terms of the expected VAT Gap reduction minus the estimated investment and operational costs is estimated to be EUR 788 billion.

An issue which needs to be addressed when moving forward with the central VAT monitoring database model is who will bear the costs. As the benefit of a VAT Gap reduction is mostly in the interest of the tax authority it raises the question whether certain incentives should be considered to support the taxable persons when implementing the model. In this view the support would

² It may be envisaged to also include (certain) B2C transactions. However, the impact of such an enlargement of scope has not been assessed in this Study.

translate the potential benefit into incentives (e.g. subsidies to invest in technology) in order to smoothen the implementation process.

The data warehouse model

38. The data warehouse model requires two initial investments by the taxable person: the accounting system needs to be able to generate a standard audit file for tax and the data in that file needs to be stored in a data warehouse that can be accessed by the tax authority. This model has already (partially) been implemented in some Member States. The use, format and data elements have been defined in OECD Guidance.³ Experience in these Member States shows that the first type of investment is limited, as most suppliers of accounting software adapt their applications to comply with the requirement of generating a standard audit file for tax purposes. Implementing data warehouses by each taxable person would, however, require a large-scale investment. According to the implementation time frame, the timing of the costs and benefits will differ. Under a big bang scenario the implementation could be complete in the year 2018.

39. The benefits of this model are greater than those with the split payment model and the central VAT monitoring database model as it also allows monitoring of B2B and B2C transactions. All activities (sales, invoices, payments) within an entire sector and supply chain can be audited.

40. We calculated the NPV in 2015 (before the first year of investment) of the costs and benefits in each scenario for the entire time frame 2016-2038. Under the big bang scenario the minimal NPV of the data warehouse model, in terms of the expected VAT Gap reduction minus the estimated investment and operational costs amounts to EUR 1.389 billion. Nonetheless, the level of investment is considerable. There are different ways to reduce those costs. The first solution could be that the data needed would not have to be made accessible in a data warehouse, but the authorities could, at any time or on a periodic basis (e.g. once a year), request to be provided with the standard audit file. This could mean a cost reduction of respectively 24% and 44% .

41. A second solution that could be combined with the first one, would be to require a data warehouse only from certain types of taxable persons (e.g. those that require closer monitoring and auditing due to their fraud-risk profile).

42. An issue which needs to be addressed when moving forward with the data warehouse model is who will bear the costs. As the benefit of a VAT Gap reduction is mostly in the interest of the tax authority it raises the question whether certain incentives should be considered to support the taxable persons when implementing the model. In this view the support would

³ OECD, Guidance for the Standard Audit File – Tax, April 2010, <http://www.oecd.org/dataoecd/42/35/45045602.pdf>

translate the potential benefit into incentives (e.g. subsidies to invest in technology) in order to smoothen the implementation process.

The certified taxable person model

43. Under this model, the taxable person needs to comply with the requirements for certification and invest in an internal control system. The model requires limited investment for taxable persons whose VAT accounting systems have been approved and authorised by the tax authorities and/or that already comply with other legislation that poses similar requirements, such as Sarbanes-Oxley. The benefit of the model is additional assurance that taxable persons use compliant systems and that the risk level diminishes. This could offer opportunities to target audit efforts on segments of taxable persons that pose a higher risk. The benefit in terms of reduction of the VAT Gap is lower than in the other models. According to the implementation time frame the timing of the costs and benefits will differ. Under a big bang scenario the implementation could be complete in the year 2018.

44. Under the big bang scenario the minimal NPV of the certified taxable person model, in terms of the expected VAT Gap reduction minus the estimated investment and operational costs amounts to EUR 813 billion.

45. We calculated the NPV in 2015 (before the first year of investment) of the costs and benefits in each scenario for the entire time frame 2016-2038. An issue which needs to be addressed when moving forward with the certified taxable person model is who will bear the costs. As the benefit of a VAT Gap reduction is mostly in the interest of the tax authority it raises the question whether certain incentives should be considered to support the taxable persons when implementing the model. In this view the support would translate the potential benefit into incentives (e.g. subsidies to invest in technology) in order to smoothen the implementation process.

General Conclusion

46. The way the actual costs and benefits will turn out, will strongly depend on the way a model is implemented by the Member States (as apparent when comparing the results per implementation scenario for each model). The implementation in all Member States with full harmonisation and cooperation between Member States are key to achieve the effectiveness of each model as the VAT Gap is not only dependent on local measures but also on how the fraud is tackled across the Member States (as apparent for missing-trade intra-Community fraud).

47. One model of itself will not effectively close the VAT Gap. This is because not all the models apply to all taxable persons and to both B2B and B2C transactions and in no model is it possible to monitor all transactions and take action in real-time. Some of the models have shown themselves to be potentially effective for parts of the VAT Gap. A final conclusion in this area will require further detailed analysis of the VAT Gap and greater study of the cause-and-effect relationship between certain types of transactions and businesses. From this Study, we can conclude that a combination of models that tackles both tracing transactions on a real-time or nearly real-time basis (data warehouse model) and offers the ability to block funds for some transactions (split payment model) offers the greatest prospects of success. Additional assurance can be gained from further monitoring transactions and enhanced control requirements (e.g. by means of certification requirements for certain types of businesses).

Recommendations

Overall recommendation

48. Based on our Study it appears that a combination of the split payment model with a limited version of the data warehouse model as described above (hereafter referred to as the “*limited*” data warehouse model), i.e. a model where data is produced in a standard format but without direct access in a data warehouse, offers the best combination in reducing the VAT Gap while keeping the estimated costs as low as possible.

49. The split payment model reduces the VAT Gap by intervening in the payment and collection cycle, which is the most effective way to ensure that VAT is paid. The disadvantage of the split payment model, however, is its “*limited*” scope (i.e. electronic funds transfer for B2B transactions). Furthermore, the split payment model may have a couple of other shortcomings relating to the cash-flow impact and the difference between the time of payment and the time VAT becomes due. The potential cash-flow disadvantage and mismatch between the VAT payment between parties and the moment VAT becomes due could be overcome by making VAT due at the moment the payment is received. However, as this is a fundamental principle

of the VAT system this has not been further investigated in the Study. The disadvantage of the limited scope however, is overcome in the data warehouse model. By having access to a full set of data, the tax authority is able to monitor a full supply chain (both B2B and B2C transactions and both cash, EFT and credit or debit card payments) and detect patterns that could create a VAT Gap (e.g. threshold fraud by customers). The main disadvantage of the data warehouse model is the cost of keeping a data warehouse accessible at all times. In order to limit these costs, it may be envisaged to eliminate the data warehouse requirement and require that the standard audit file is available on simple request by the tax authorities. This *“limited”* data warehouse model could be implemented in all Member States as from 2018 thus already producing its benefits from that time. It could then be complemented with the split payment model that could be operational under the big bang scenario as from 2020. This will not allow the tax authorities to perform audits on a real time basis. However, this disadvantage may be partially off-set by robust audit methodologies and risk profiling by the tax authority allowing them to identify high-risk taxpayers who would be required to provide the data within short time frames (close to real time audit).

50. Finally it should be noted that, in this combination, a couple of benefits for the taxable persons may be created. As mentioned in the Study, the split payment model may allow for a pre-filled VAT return, which will be beneficial for some taxable persons. Additionally, it may be envisaged to eliminate certain listing requirements (e.g. yearly client listing, yearly consolidated VAT return) if the tax authorities are provided with a standard audit file for tax. This file will give the tax authorities much greater audit opportunities than some of the listings currently required and thus it may not be useful anymore to impose these compliance obligations. Finally, it may be envisaged to refund VAT quicker if taxable persons comply with certain requirements of the (combined) model.

51. A combination of the split payment model with the central VAT monitoring database model will also increase the possible reduction of the VAT Gap. However, there are two important downsides compared to the first combination. Firstly, the combination of the split payment model and the central VAT monitoring database has a more limited scope than the combination of the split payment model and the data warehouse model. Indeed, the central VAT monitoring database would be applicable to all situations in which an invoice is issued. This is primarily obligatory for B2B transactions. Although this is a broader scope than the B2B transactions paid for by EFT, it still does not allow a tax authority to monitor B2C transactions for which no invoice is issued.

Secondly, there is no potential to reduce costs related to the central VAT monitoring database and there do not seem to be cost reductions related to combining the split payment model and the central VAT monitoring database. Indeed, the cost of implementing an e-invoicing platform cannot be broken up like the cost for creating and storing a standard audit file. Furthermore, the cost of the split payment model is primarily linked to investments and

operational costs with the banking industry, whereas the cost of the central VAT monitoring database is primarily linked to investments and operational costs with the taxable persons. Therefore, implementing a combination of both models will not reduce costs significantly.

52. A combination of the split payment model and the certified taxable person model is also possible. The advantage is that it has a large scope (comparable to the first combination). However, the expected cost/benefit ratio is lower than the first combination.

Recommendations for next steps

- further data collection and data quality improvement is required in order to have more robust and more accurate data to estimate the potential costs and benefits of the different collection model. In general, this good quality data with regard to VAT across the EU can be used for various purposes (e.g. increase administrative cooperation, benchmark collection cost of VAT, regulatory impact assessments,...);
- for all models a detailed analysis is needed to investigate how the authorities could compensate additional costs incurred by taxable persons (or banks in the split payment model);
- based on the results of this Study, the split payment model, possibly in combination with a “*limited*” data warehouse model should be further investigated;
- it should be further investigated whether it is possible to compensate for the cash-flow impact in the split payment model by granting quicker VAT refunds and to reduce the compliance burden on taxable persons, e.g. by reducing the information obligations such as filing client listings, in case alternative collection models are implemented;
- a consultation and interviews with various stakeholders may be envisaged in order to further assess the impact of any selected model. However, in order to ensure that the information collected is useful, it is important that the details of the model (including information and compliance obligations for taxable persons and other stakeholders) are described in detail. This will allow stakeholders to better assess the impact of a specific model;
- whatever model is further investigated, it is important that the model is made obligatory in all Member States and that the implementation is fully harmonised in all Member States. Furthermore, an analysis should be made of the impact on the NPV of the model where the technology needed would be centralised in one EU platform instead of 27 different

platforms, i.e. one for each Member State. Therefore, all Member States should contribute with relevant data and input to ensure harmonisation.