Fair and simpler taxation supporting the recovery strategy – Ways to improve exchange of information and compliance to reduce the VAT gap

European added value assessment

STUDY

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European added value assessment

European Parliament legislative-initiative reports drawn up on the basis of Article 225 of the Treaty on the Functioning of the European Union are automatically accompanied by a European added value assessment (EAVA). Such assessments are aimed at evaluating the potential impacts, and identifying the advantages, of proposals made in legislative-initiative reports.

This EAVA accompanies a resolution based on a legislative-initiative report prepared by the European Parliament's subcommittee on Tax Matters (FISC), presenting recommendations to the European Commission on avenues to follow to support the Next Generation EU recovery strategy and reduce the VAT gap in the EU by means of fair and simpler taxation.

The main purpose of the EAVA is to identify possible gaps in European Union (EU) legislation. The various policy options to address such gaps are then analysed and their potential costs and benefits are assessed.

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Executive summary

Background

Value added tax (VAT) is an indirect consumption-based tax that applies to almost all goods and services sold and provided within the European Union (EU).[1] VAT is therefore a key source of revenue for Member States, and in total VAT raised around €940 billion for 2020, which corresponds to around 6 % of EU gross domestic product (GDP) or 17 % of Member States' total tax revenues. One of the EU's own resources is also based on VAT (around 12 % of the EU budget). The current transitional EU VAT system remains relatively complicated and vulnerable to fraud however. Moreover, businesses doing cross-border trade often face high compliance costs as the effectiveness of the tax administration in Member States varies widely and as digitalisation could still be further developed.

The European Commission recognises the need to proceed with an overall modernisation of the value added tax system. The objective of the reform envisaged in the action plan of 2016[2] and in the proposal of 2018,[3] is to create a **definitive VAT system**, based on the principle of taxation in the country of destination. Regarding trading of goods, this would bring the practice more in line with what is already in force since 2015 in the field of the provision of services that are taxed in the place where the service is provided. The proposal has yet to be agreed unanimously by the Member States. The scheduled January 2022 launch has already been delayed until July 2022 and more delay could occur as some diverging perspectives, some legitimate questioning and some recurrent apathy remain to be addressed.

Why should the EU act?

The global expansion of value chains, the rapid diffusion of technologies and the digitalisation of the economy are increasingly highlighting unaddressed loopholes and policy gaps in the regulation and administration of EU VAT. The economic consequences of this relative lack of effective administration of the VAT regime have been well documented, in particular regarding its relative **complexity, fragmentation and high level of compliance costs**. Moreover, following the 2008 financial crisis, a number of high profile frauds came to light. A number of sophisticated abuses, such as cases related to missing trader and carousel schemes, have notably attracted a lot of attention. This contributed to calls for an end to complacency and for effective reform in this area.

The current challenging economic situation, where a large amount of debt has been accumulated at Member State level to address the negative impact of the Covid-19 pandemic, is again renewing interest in addressing potential VAT revenue losses. This is even more true as the EU will also need to increase its own resources to reimburse the disbursements made under the Next Generation EU (NGEU) recovery plan. Further action would thus be welcomed as the budgetary losses from cross-border VAT fraud are still estimated at around €50 billion per year on average.[4] More broadly, the VAT gap for the EU as whole, including cross-border VAT evasion and fraud, has been estimated at around €120 billion in 2020,[5] almost equivalent to the entire annual EU budget.

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1 In this report, EU refers to the EU-27, i.e. data are computed without the corresponding values for the United Kingdom.

2 Communication from the Commission on An action plan on VAT Towards a single EU VAT area - Time to decide, COM/2016/0148 final, April 2016.

3 Proposal for a Council directive amending Directive 2006/112/EC as regards the introduction of the detailed technical measures for the operation of the definitive VAT system for the taxation of trade between Member States, COM(2018) 329, European Commission, May 2018.

4 Lamensch M. and Ceci E., VAT fraud Economic impact, challenges and policy issues, Policy Department for Economic, Scientific and Quality of Life Policies, October 2018.

5 Study and Reports on the VAT Gap in the EU-28 Member States 2020 Final Report, European Commission, September 2020.

Description of key findings

Member States agreed that a definitive VAT reform should proceed only if it can be demonstrated that its impact on reducing the VAT gap is substantial and if the burden on businesses is also reduced. In this study, we analyse these issues in detail, with a view to identifying the possible challenges for the EU and to evaluating the EAV of potential policy options to address these challenges. We also conducted a thorough comparative economic analysis of the EAV of a series of scenarios, based upon the policy options identified. The results confirm that **complexity remains the main factor behind both the VAT gap and the high level of compliance costs for businesses in all scenarios**.

More specifically, regarding the impact of each scenario compared to the baseline in 2025, we find an **EAV of around €39 billion for the scenario of extended cooperation with exchange of information and a one-stop shop**. This can be broken down into a reduction of the VAT gap of around €29 billion, and a reduction of the compliance costs for businesses of almost €10 billion. We find a slightly higher **EAV of around €45 billion for the scenario of extended cooperation with a VAT definitive regime and a one-stop shop**. This breaks down into a higher reduction of the VAT gap of around €35 billion, and into a reduction of the compliance costs for businesses of almost €10 billion. Finally, we find a higher **EAV of €71 billion for the most ambitious scenario including establishment of an EU treasury and VAT administered at EU level**. This breaks down into a higher reduction of the VAT gap of around €57 billion, and into a higher reduction of the compliance costs for businesses of €14 billion.

The most ambitious scenario, including establishment of an EU treasury and VAT administered at EU level is, however, rather unlikely to gather sufficient support at the current juncture and would also require substantial Treaty change. As the definitive VAT regime continues to be delayed, our evaluation also emphasises the potential for a scenario of extended cooperation through reinforced exchange of information and a one-stop shop. However, the extent to which Member States are likely to coordinate a concerted move, as assumed by some commentators, remains to be demonstrated at this stage.

Finally, our analysis shows that new obligations imposed to fight tax fraud and reduce the VAT gap do **not necessarily increase compliance costs** if they are accompanied by progress in digitalisation and in reducing complexity, while ensuring that the tax administration is effective and transparent and robust enforcement of the rule of law. If Member States continue to pursue the current fragmented and complex approach, significant reduction of compliance costs and the VAT gap is unlikely.

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List of abbreviations and acronyms

ADR	alternative dispute resolution
B2B	business to business
B2C	business to consumer
CESOP	central electronic system of payment information
CTP	certified taxable person
DAC	Directive on Administrative Cooperation
EAV	European added value
EPPO	European Public Prosecutor's Office
GRCM	generalised reverse charge mechanism
ICT	information and communication technologies
IOSS	import one-stop shop
MTC	missing trader fraud
MTIC	missing trader intra-community fraud
MOSS	mini one-stop shop
NGEU	next generation EU recovery plan
OLAF	European Anti-fraud Office
OSS	One-stop shop
SMEs	small and medium enterprises
TNA	transaction network analysis
VAT	value added tax
VIES	VAT information exchange system
VTTL	value added tax total tax liability
WEF	World Economic Forum

1. Introduction

The global expansion of value chains, the rapid diffusion of technologies and the digitalisation of the economy are increasingly highlighting unaddressed loopholes and policy gaps in the regulation and administration of the EU VAT regime. The economic consequences of this relative lack of effective administration of the current regime have been well documented, in particular regarding its relative complexity, fragmentation and the high level of compliance costs. Moreover, following the 2008 financial crisis, a number of high profile frauds came to light. A number of sophisticated abuses of the EU VAT system, such as cases related to missing trader and carousel schemes, have notably attracted a lot of attention. This contributed to calls for an end to complacency and for effective reform in this area. An action plan on VAT was proposed by the European Commission in 2016,[6] and a proposal on a move towards an **EU definitive VAT regime** was presented in 2018.[7] The aim of this package was to transform the current VAT regime[8] towards a definitive VAT system for business to business (B2B) transactions for goods. The proposal has yet be agreed unanimously agreement by the Member States. The scheduled January 2022 launch has already been delayed until July 2022 and further delay could occur as some diverging perspectives, some legitimate questioning and some apathy still have to be addressed.

The current challenging economic situation, where a large amount of debt has been accumulated at Member State level to address the negative impact of the Covid-19 pandemic is again renewing interest in addressing potential VAT revenue losses. This is even more true as the EU will also need to increase its own resources to reimburse the disbursements made under the next generation EU (NGEU) recovery plan. Further action would thus be welcomed, as the budgetary losses from cross-border VAT fraud are estimated at around €50 billion per year on average.[9] More broadly, the VAT gap for the EU as whole, including cross-border VAT evasion and fraud, was estimated at around €120 billion in 2020,[10] almost equivalent to the entire annual EU budget. As a result, in 2020, the Commission proposed a new tax package containing an **action plan for fair and simple taxation supporting the recovery**,[11] with the objective of adopting a common VAT system that is simpler, fairer and effective at tackling cross-border fraud. The plan presents a set of 25 actions to support the economic recovery and to ensure sufficient public revenue in the EU. The tax package also contains a communication on tax good governance in the EU and beyond.[12] The purpose is to review progress made in enhancing tax good governance in the EU, as well as externally, and to suggest areas for improvement. The tax package finally contains a legislative proposal to revise the Directive on Administrative Cooperation (DAC),[13] which would introduce an automatic exchange of information between Member States' tax administrations for income/revenues generated by sellers

6 Communication from the Commission on An action plan on VAT Towards a single EU VAT area - Time to decide, COM/2016/0148 final, April 2016.

7 Proposal for a Council directive amending Directive 2006/112/EC as regards the introduction of the detailed technical measures for the operation of the definitive VAT system for the taxation of trade between Member States, COM(2018) 329, European Commission, May 2018.

8 Which was initially reformed in 1993, as a transitory arrangement until a definitive destination-based system could be established. A number of attempts, carried out over nearly 30 years, have failed to achieve this.

9 M. Lamensch and E. Ceci, 2018, and MTIC fraud investigation and LEA's cooperation improving, European Union Agency for Law Enforcement Cooperation (Europol), 2016.

10 Study and Reports on the VAT Gap in the EU-28 Member States 2020 Final Report, European Commission, September 2020.

11 Communication from the Commission on An Action Plan for fair and simple taxation supporting the recovery strategy, COM(2020)312 final, July 2020.

12 Communication from the Commission on Tax Good Governance in the EU and beyond, COM(2020)313 final, July 2020.

13 Proposal for a Council Directive amending Directive 2011/16/EU on administrative cooperation in the field of taxation, COM/2020/314 final, European Commission, July 2020.

on digital platforms and would strengthen administrative cooperation through the clarification of existing rules.

In this study, we focus more specifically on ways to reduce the VAT gap and to lower compliance costs for businesses. As emphasised in the literature,[14] the lack of harmonisation and effective cooperation could contribute to complex and costly taxation for cross-border activities. Moreover, this complexity, generated by the existing regulatory framework at individual Member States' level, contributes to maintaining high compliance costs. Administration and enforcement of rules in the current regulatory system is also sometimes relatively ineffective, while exchange of information may be difficult as the information available is not always comparable, as not enough simplification efforts have been made. Advanced data analysis is also not developed to the same extent in all Member States.[15]

To shed some light on these issues and in line with the existing legislation and with the study in annexe, the purpose of this paper is to assess the potential costs and benefits that would arise from reducing the VAT gap and lower compliance costs. We start by describing the current state of play regarding the evolution of the VAT gap and of its components. In the second section, we recall recent legislative progress and the policy challenges faced in reducing the VAT gap and lowering compliance costs. We also describe the various policy options to address these remaining challenges. Finally, in the last section, we conduct a thorough comparative economic analysis of the EAV of the policy options identified.

[14] A. Teasdale, (ed.), Europe's two trillion euro dividend: Mapping the Cost of Non-Europe, 2019-24, EPRS, April 2019.

[15] See for instance Special Report, Tackling intra Community VAT fraud: More action needed, European Court of Auditors, 2015.

2. Understanding, analysing and decomposing the VAT gap and compliance costs for businesses

The concept of a VAT gap is an interesting addition to a number of existing indicators used to measure the potential losses of VAT revenues. As a complement to results available in the economic literature, the European Commission has therefore started to publish a yearly analysis of the factors contributing to the changes in the VAT gap in Member States. Building upon these results, this section provides an updated overview of the current state of play regarding the evolution of the VAT gap and of compliance costs for EU businesses. The main channels of transmission of policy action in this area are also identified.

2.1. Calculation of the total VAT gap

The calculation of the VAT gap is a difficult undertaking, as by definition it involves the estimation of unobserved variables, such as the compliance rate. Moreover, as the share of immaterial content is becoming more prominent in the values of products exchanged, tax authorities' calculation of VAT at micro level is increasingly complex. This is even more relevant as, in addition to cross-border B2B transactions of goods, transactions of services and intangible assets could also be affected by a substantial number of issues. Regarding services, the current legislative provisions are different to those for goods as, the VAT should be charged where the service is effectively provided. In practice, this means that specific criteria [16] are defined to determine the exact location where the service is provided, which with digitalisation and dematerialisation can be cumbersome for less-effective tax authorities to verify. Furthermore, as highlighted in the study in annexe, 'if the customer is neither a taxable person nor established in the EU territory, then the tax is not applicable due to the lack of the territoriality requirement in cases of provision of services related to rights on intangible assets, advertising, technical and legal assistance and data supply, financial services, job hiring, and supply and sale of gas and electricity'. Faced with such a level of complexity and with a number of instances of elaborate fraud, some tax authorities have recently started to develop a series of more advanced verification methods.

From a macro perspective, the European Commission Directorate General on Taxation and Customs Union (TAXUD) has recently produced two comprehensive reports[17] on the calculation and the decomposition of the VAT gap at Member State and at EU level. This section draws largely upon the data and the results provided in these two reports. From an analytical point of view, for year 't', the value of theoretical VAT revenues in each Member State 'i', can be broken down as a product of a theoretical legal VAT base and of a theoretical legal VAT rate. [18] The VAT gap is then obtained as the difference between these theoretical VAT revenues and the amount of VAT revenues effectively

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16 As explained in the study in annex, 'current criteria for identifying the place where the service is provided are different and include, for example, customer tax residence, property location for real estate services, distance travelled for transport services, place of consumption for catering services, and place of performance for artistic, sporting, or cultural activities There are further exceptions for services provided to customers who are non-taxable persons, such as in the case of intermediary services and transport of goods within the territory of a Member State; others refer to the customer's place of residence (such as in the case of vehicle and boat hire, electronic and telecommunications services)'.

17 See G. Poniatowski et al., Study and Reports on the VAT Gap in the EU-28 Member States, final report, European Commission, September 2019, and Study and Reports on the VAT Gap in the EU-28 Member States 2020 Final Report, European Commission, September 2020.

18 The product of the theoretical legal VAT base and of the theoretical legal VAT rate is equivalent to the VAT Total Tax Liability (VTTL) in the Commission study.

collected. The reduction of the VAT gap can then be analysed as the need to reduce the difference between the theoretical legal VAT base and the effective VAT base, and as the need to reduce the difference between the theoretical legal VAT rate and the effective VAT rate. Alternatively, since the amount of VAT revenues effectively collected is a product of the theoretical VAT revenues and of the compliance ratio (in %), VAT revenues effectively collected could be expressed as:

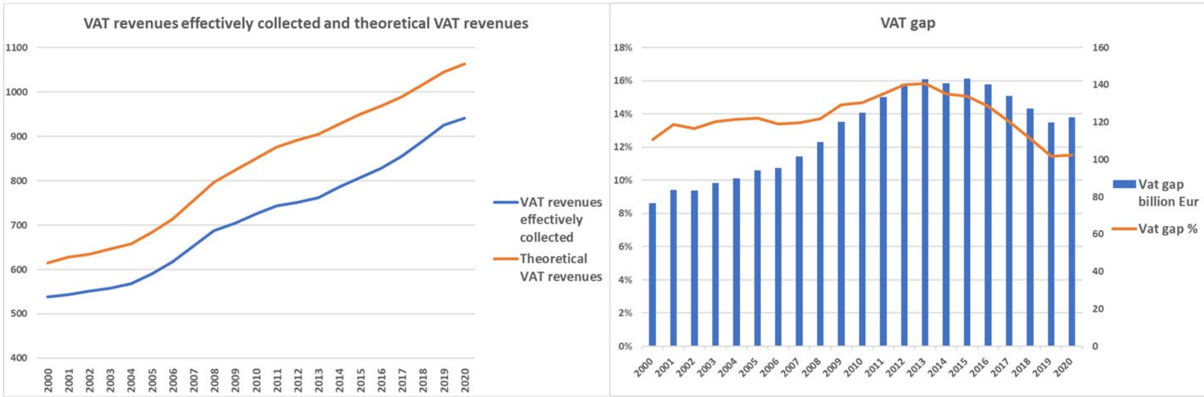
$$\textit{VAT revenues effectively collected}_{i,t} = \textit{theoretical VAT revenues}_{i,t} * \textit{compliance ratio}_{i,t} \qquad (1)$$

where

$$\textit{compliance Ratio}_{i,t} \textit{ (in \%) is: } 1 - \textit{VAT Gap}_{i,t} \textit{ (in \%)} \qquad (2)$$

For all Member States and for the period considered (2000-2020), VAT revenues effectively collected are provided by Eurostat, while compliance ratios are taken from the 2020 study by the European Commission.[19] Theoretical VAT revenues are computed accordingly. Figure 1 presents the evolution[20] of the VAT revenues effectively collected, of theoretical VAT revenues and of the VAT gap in absolute and in % terms. Figure 1a shows that, since 2000, VAT revenues effectively collected have constantly increased. Interestingly, Figure 1b e demonstrates that, from 2000 to 2015, this increase has been commensurate with the increase in the theoretical VAT revenues that could have been collected, should compliance have been higher. From 2015, VAT revenues were collected more effectively. As a result, the VAT gap, which reached a maximum of more than €140 billion in 2015, began to decrease significantly to around €120 billion in 2020. It is important here to recall that the estimate takes account of revenues emerging from VAT rules for cross-border sales of e-services. The estimate also incorporates potential mistakes, bankruptcies, insolvencies, the impact of the shadow economy and other unexplained factors. That being said, the decline in the VAT gap since 2015 could be expected to be directly linked to the effort undertaken during and after the sovereign debt crisis to improve public finances and to improve tax collection. It has also to be analysed in view of the results of all the recent actions undertaken at joint EU and Member State level to tackle tax fraud and tax evasion.

Figure 1 – Evolution of VAT revenues (a) and VAT gap (b) – 5 year averages



Source: author's own estimation based upon data from DG TAXUD and Eurostat.

Our estimates are in line with other results available in the literature. A study in 2015[21] evaluated the EU VAT gap at €150 billion for 2014. More recently, another study[22] computed an EU VAT gap of

[19] European Commission, 2020, op cit.

[20] In this study we use five year averages consistently for all components and aggregates, to reduce cyclical variations.

[21] L. Bardone et al., Study to quantify and analyse the VAT Gap in the EU Member States 2015 Report, European Commission, May 2015.

[22] G. Poniatowski et al., Study and Reports on the VAT Gap in the EU-28 Member States, final report, European Commission, September 2019

€180 billion in 2018. The latest estimation provided by the European Commission[23] gave an EU VAT gap of €117 billion for 2018, with a potential increase in 2020, due to the Covid-19 pandemic, to around €140 billion.[24] In Figure 1, a pause in VAT gap reduction is indeed evident in 2020, although given the size of the economic shock inflicted by the coronavirus pandemic, these numbers should still be interpreted with caution at this stage. Looking at the Member State level (see annexe), currently nine (Bulgaria, Czechia, Greece, Italy, Lithuania, Malta, Poland, Romania and Slovakia), still display VAT gaps above the EU average (at 11 %) in 2020, with Italy, Greece, Lithuania and Romania having values above 25 %.

2.2. Cross-border fraud and the definitive VAT regime

In recent years, cross-border fraud has attracted a lot of attention,[25] with the development of high profile cases related to missing trader fraud (MTC). Missing trader intra-community fraud (MTIC), such as carousel frauds, refers to cases where a business (called the missing trader) charges VAT to other business without actually disclosing and remitting the amount of VAT due to the tax authorities. The missing trader then disappears, leaving the tax authorities empty-handed and without much means of recourse. Missing trader extra-community fraud (MTEC) concerns goods that are imported in the EU with VAT not being remitted to the tax authorities. Again, and as recently highlighted in a report on these issues by the European Commission,[26] 'arriving at robust estimates of the size of cross-border fraud is at present still a challenging task'. In particular, at micro level, the amount, the complexity and the variety of non-harmonised sources to be analysed, greatly increase the costs and reduce the comparability of such undertakings. As with the VAT gap, estimates available in the literature should therefore be considered with caution, as they mainly provide a quantification of the importance of the issue.

In this study, we therefore apply a variety of existing macroeconomic approaches to compute a range of estimates and to derive a confidence interval for the amount of cross-border VAT fraud within the EU. The first method is based upon an earlier work by Frunza.[27] His econometric model looks at the relationship between changes in exports and exports patterns in each Member State. This allows for the calculation of a potential value of MTIC which is compared with VAT revenues to arrive at an estimate of cross-border VAT gap for all Member States. Building upon these estimations, we recomputed and updated Frunza's results, notably by excluding the United Kingdom (UK) from the EU aggregate. This results in an average value of €59 billion for EU cross-border fraud in 2020.

Our second method builds upon the work carried out on the estimation of corporate income taxation and in particular in the evaluation of base erosion and profit shifting by DG EPRS, published in a study in 2015.[28] Here, the calculation assumes a convergence in the compliance ratio towards an average value, which could either be estimated using existing data or taken as a hypothetical target. We follow the second approach by calibrating an average increase in compliance (corresponding to a theoretical situation where there would be no cross-border VAT fraud), which corresponds to a cross-border VAT gap of €50 billion in 2014 (in line with Commission estimates on

23 Study and Reports on the VAT Gap in the EU-28 Member States 2020 Final Report, European Commission, September 2020.

24 VAT gap report, fact sheet, DG TAXUD, European Commission, September 2020. The numbers do not include the UK.

25 For a review, see M. Lamensch and E. Ceci, VAT fraud Economic impact, challenges and policy issues, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, October 2018.

26 For a review of all methodologies available, see The concept of Tax Gaps Report III: MTIC Fraud Gap estimation methodologies, FISCALIS 2020 Tax Gap Project Group, subgroup VAT fraud (FPG/041), European Commission, November 2018.

27 See M. Frunza, Cost of the MTIC VAT Fraud for European Union Members, April 2016.

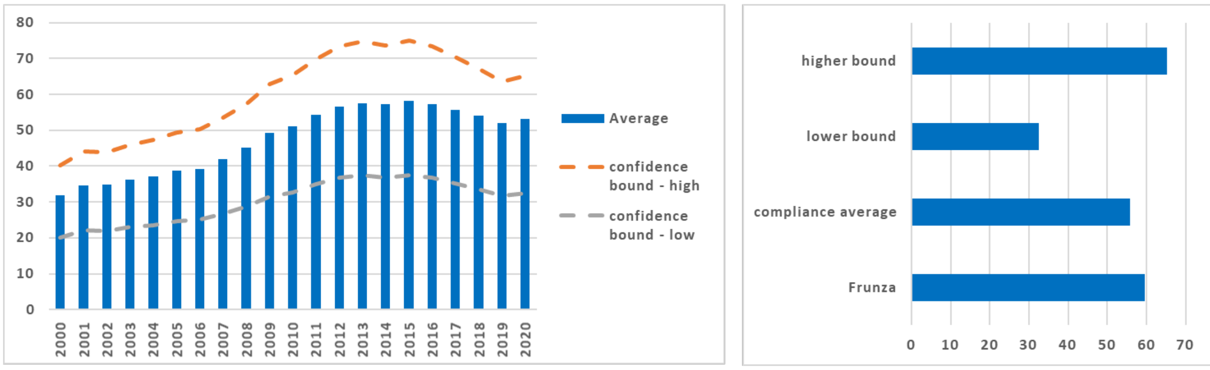
28 Bringing transparency, coordination and convergence to corporate tax policies in the European Union Part I: Assessment of the magnitude of aggressive corporate tax planning, EPRS, September 2015.

cross-border fraud).[29] Once the theoretical compliance ratio is computed, a corresponding value for the size of the VAT gap due to cross-border fraud is obtained by subtracting the original values from the new ones.

Our last method derives from the previous one, but differentiates the effort of compliance in each Member State according to the distance to the VAT compliance border. The advantage of this approach is that it allows the calculation of an upper and a lower bound for the value of cross-border VAT fraud. The upper bound is estimated by assuming a conditional convergence toward a theoretical upper bound of compliance (estimated at one standard deviation above the EU average level of compliance). The lower bound is estimated by assuming a conditional convergence toward a theoretical lower bound of compliance (estimated at one standard deviation below the EU average level of compliance). Again, once the theoretical compliance ratio is computed, a corresponding value for the size of the VAT gap due to cross-border fraud is obtained by subtracting the new values from the original ones.

The results are presented in Figure 2. Our interval of confidence for cross-border VAT fraud within the EU ranges from €32 to €64 billion in 2020, with an average value of around €52 billion.[30] The results also show an increase in the amount of cross-border fraud broadly in line with the evolution of the VAT gap. We therefore also observe a decrease, from a maximum value of almost €60 billion in 2015. Looking at the Member State level, eleven (Bulgaria, Czechia, Greece, Italy, Latvia, Lithuania, Malta, Romania, Slovakia, Poland, Portugal) currently display cross-border VAT fraud as a percentage of total VAT revenues above the EU average (at around 5 % in 2020, see annexe).

Figure 2 – Cross border VAT gap – € billion



Source: author's own estimation based upon data from DG TAXUD and Eurostat.

The proposed definitive tax regime aims at specifically addressing the part of the VAT gap related to cross-border fraud for business to business (B2B) transactions of goods, but it would also naturally directly and indirectly impact the total VAT gap more broadly. The changes introduced by the definitive tax regime proposal would notably imply that the current two-transaction system (i.e., an exempt supply in the country of departure of the goods and an intra-community acquisition taxed in the country of destination), would be replaced by a single transaction. While intra-community supplies were previously exempted from taxation, they would now be subject to VAT taxation as if they were domestic transactions. The proposed system is based on the 'destination principle', meaning that VAT would be paid to the Member State where the delivery occurs. In addition, the Commission proposal changes the provisions regarding the person liable for payment of VAT – The

29 Communication from the Commission on An action plan on VAT Towards a single EU VAT area - Time to decide, COM/2016/0148 final, April 2016.

30 Our results are in line with Frunza and with other estimates in the literature, which on average indicate that cross-border border VAT fraud represents around 49 % of the estimate of the total VAT gap, or around €60 billion in 2020.

supplier would now be responsible for paying VAT. In order to avoid extra costs for suppliers in having to register in all the Member States where they supply goods, the new system envisages the expansion of the one-stop shop (OSS) to B2B transactions. The OSS will allow firms to pay the VAT due to the authority of the Member States where they are established. The VAT would then be transferred by these authorities to the treasury of the Member State where the supply is destined, and to whom the VAT was due. In addition, a proposal also amends the VAT Directive[31] and reforms the rules by which Member States set VAT rates. The reform would enter into force once the definitive system is in place; it should provide Member States with more flexibility to set VAT rates, and will end the current arrangements and their many ad hoc derogations.

The Commission also hopes for swift agreement between the Member States on new rules to improve VAT for e-commerce, proposed in 2016.[32] As the reform putting the definitive system in place is planned in several consecutive steps, it will likely take some years to be effectively operational. This is even more true, as with all initiatives in the area of taxation, unanimous agreement between Member States will be necessary before the proposed changes can come into force. According to the impact assessment carried out by the Commission in 2017, a definitive VAT regime could reduce cross-border fraud by 80 % (about €42 billion resulting from a total estimated cross-border VAT fraud of around €52 billion per year).[33] It could also reduce administrative costs by up to €0.4 billion per year. Moreover, past initiatives to modernise VAT for cross-border e-commerce[34] were also evaluated in an impact assessment by the Commission in 2017.[35] Here, it was estimated that the modernisation of cross-border e-commerce and the introduction of the mini one-stop shop (MOSS)[36] could increase VAT revenue collection by €7 billion and reduce compliance costs for businesses by up to €2.3 billion.

2.3. Addressing the question of the burden of compliance for businesses

European Commission surveys constantly report that the current EU tax system and in particular VAT is one of the main administrative challenges for businesses, both in terms of its complexity and in terms of the burden of compliance that it imposes.[37] This is particularly relevant for small and medium-sized enterprises (SMEs), who often lack internal expertise to deal with all the detailed tax requirements involved with doing cross-border trade. In some Member States, an excessively costly and heavy multi-layered administrative system is also sometimes in place. The implementation of the proposed definitive VAT regime without significant simplification efforts has therefore been seen with some caution by businesses, as they feel that it could contribute to increased compliance costs, in particular if businesses have to follow the evolution of the changes in the VAT legislation in other Member States.[38] It could become even more challenging if greater dispersion of the rules and

[31] Directive 2006/112 of 28 November 2006 on the common system of value added tax.

[32] New rules to improve VAT for e-commerce, European Commission, December 2016.

[33] Impact assessment accompanying the proposal for a Council directive amending Directive 2006/112/EC as regards harmonising and simplifying certain rules in the value added tax system and introducing the definitive system for the taxation of trade, SWD(2017) 325 final, European Commission, October 2017.

[34] The impact assessment takes into account and assesses the implementation of important changes made in 2015 to the VAT place of supply rules and the introduction of the mini one-stop shop (MOSS).

[35] Impact assessment accompanying the proposals for a Council directive, a Council implementing regulation and a Council regulation on modernising VAT for cross-border B2C e-Commerce, SWD(2016) 379 final, New rules to improve VAT for e-commerce, European Commission, December 2016.

[36] The VAT MOSS is an optional scheme that allows VAT – normally due in multiple EU countries – to be accounted for in just one EU country.

[37] Study on tax compliance costs for SMEs, European Commission, November 2018.

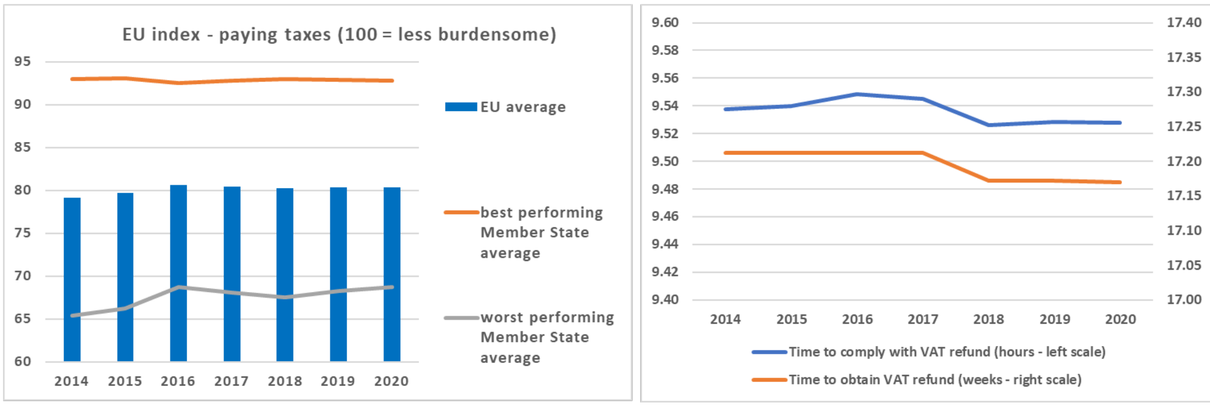
[38] Position paper on Definitive VAT system for cross-border trade, Business Europe, December 2018.

more targeted exemptions are left to be decided entirely by Member States alone. Additionally, businesses rightly express concern about the different systems in place for goods, services and intangible assets, at a time when the distinction between the three concepts is increasingly blurred. Combined with digitalisation and the complexity of exchanges, businesses stress that if these issues are not properly addressed, new types of fraud and unnecessary administrative burdens and related costs could emerge.

Looking at the magnitude of this problem, the cost of data collection for VAT is evidently relatively large in comparison to other types of tax. For instance, VAT data collection costs represent 57 % of tax compliance costs on average, against 44 % for corporate income tax. The problem is particularly acute for SMEs, thus potentially putting them at a constant disadvantage when engaging in cross-border trade. To reply to these concerns, the European Commission recently proposed the transformation of the MOSS into a broader OSS.[39] Initial results from the European Commission on the impact of the MOSS appear positive so far, with an increase in VAT collected from the MOSS for the whole EU from €2.7 billion in 2015 to €5 billion in 2019.[40] Without further progress on a comprehensive framework and on genuine simplification, however, the effectiveness of this type of solution will still need to be confirmed in practice, as it appears rather unlikely that all businesses have the necessary capacity to deal with large and non-harmonised amounts of information, even if it is centralised in a single information system.

More broadly, the World Bank Doing Business database provides a valuable source of information on the burden of taxation and a quantification of the compliance burden faced by businesses.[41] Amongst other indicators, its index on the burden of paying taxes records the taxes and mandatory contributions that a medium-sized company must pay or withhold in a given year, as well as the administrative burden of paying taxes and contributions. The index also provides two sub-indicators of the time taken to comply with VAT refund (hours), and on the time taken to obtain a VAT refund (weeks). The data cover all Member States and the current 2020 version of the database provides comparable data for 2014-2018. Using these data and extending past trends to predict levels for 2019 and 2020, we estimate a corresponding value for the EU[42] as a whole from 2014 to 2020 (see Figure 3).

Figure 3 – Burden of paying taxes – estimate for the EU



Source: author's calculation based upon World Bank index – paying taxes.

39 On 12 February 2020, the Commission adopted the Commission Implementing Regulation (EU) 2020/194, laying down details on the working of the VAT OSS.

40 MOSS statistical report, European Commission, 2020.

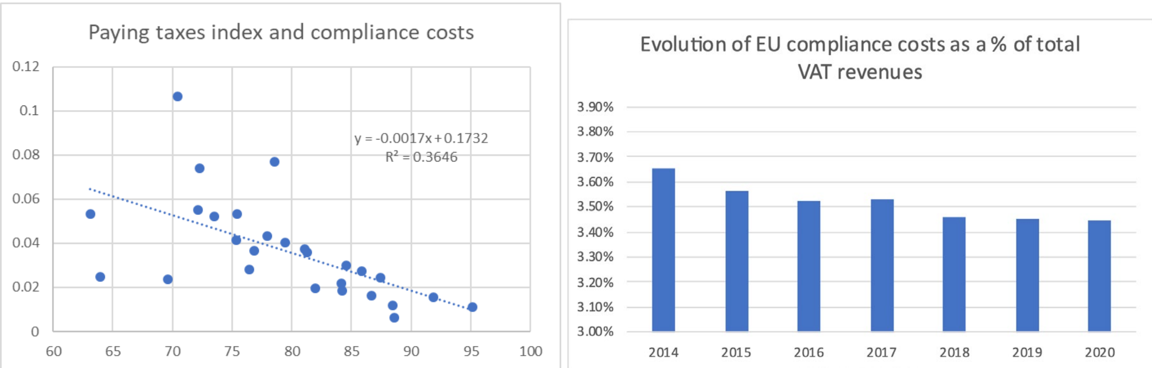
41 Doing Business database – Paying taxes, World Bank, 2020.

42 We use a weighted average, with GDP for 2018 as a constant weight.

The results indicate that in 2020 it still takes more than 9 hours for an average EU business to comply with VAT refund and more than 17 weeks to obtain a VAT refund. Italy and Romania are the two Member States with the highest required numbers of hours to comply with VAT refunds (around 42 and 22 hours respectively). Italy, Cyprus and Greece record the highest number of weeks to obtain a VAT refund (around 62, 43 and 31 weeks respectively). The overall EU index on paying taxes shows some very small signs of improvement over the period under consideration, while the gap between the best EU performers and the worst EU performers remains relatively large. This points to a need for an ambitious agenda in this area at EU level and therefore justifies the European Parliament's regular focus, recommendations and calls for action on this subject.

Another source of information is the comprehensive European Commission Study on tax compliance from 2018.[43] This survey provides a very detailed assessment of the state of play regarding the cost of tax compliance in the EU. The database covers 19 Member States from 2010 to 2014. It contains complete data on the number of businesses and on the average compliance costs for four classes of businesses (micro, small, medium and large size). This allows a calculation of average compliance costs for each Member State. As the data are rather outdated, and as not all Member States are covered (Bulgaria, Croatia, Cyprus, Denmark, Hungary, Latvia, Lithuania, Malta and Portugal are missing), more meaningful information is required for the purpose of this study.

Figure 4 – VAT compliance costs (a) as a % of total VAT revenues (b)



Source: EPRS.

For the purpose of this study, we examined the relationship between the World Bank index on paying taxes and the European Commission's compliance costs data for 2014. As shown by Figure 4a, the linear adjustment is rather strong and the statistical estimation confirms the significance of all the coefficients (see annexe). Using this bridge relationship, we are then able to compute an estimate for the cost of compliance for all Member States (see annexe) during 2014-2020. The results for the EU are presented in Figure 4b. We see that compliance costs have declined slightly from 3.65 % of total VAT revenues in 2014 to around 3.45 % of total VAT revenues in 2020. This represents around €1.8 billion in reduced VAT compliance costs for businesses. Looking at individual Member States, we found that businesses still face VAT compliance costs above 6 % in three of them in 2020; Slovakia (9.9 %), Poland (8.4 %) and Czechia (7.8 %).

2.4. Identifying the main channels of policy action transmission

The increasing complexity of the regulatory framework combined with a lack of exchange of information between Member States and sometimes limited administrative capacities could contribute to a high level of administrative burden. It also opens the door to new types of fraud and to a recurrent and persistent VAT gap. More broadly, the literature on this issue also emphasises that

[43] See European Commission, 2018, op cit.

the lack of transparency, as well as the shadow economy, could explain a large portion of the VAT gap, as businesses – sometimes not registered – operate without reporting their activities to the authorities, or hide some of their revenues. This type of fraud usually takes place in a more diffuse way and could concern all types of products and services, adding further complexity for tax authorities. The proposed definitive VAT regime would therefore naturally not alone address the full extent of the VAT gap. Progress towards tackling the VAT gap is also subject to enhanced cooperation between Member States, to improved administrative capacities, to development of digitalisation and to greater transparency and better enforcement mechanisms.

To quantify the impact of actions in each area more precisely necessitates disentangling the various channels of policy option transmission. Two recent studies by the European Commission[44] provide a list of variables and give estimated related coefficients that could be interpreted as an indication of the potential impact of policy measures. Another recent study,[45] using the same macro-econometric approach based upon panel data regressions, offers additional insights. Interestingly, all three studies break down the VAT gap according to variables reflecting policy differences (e.g. complexity of the tax system, tax administration effectiveness, extent of digitalisation, extent of corruption and transparency). The main results for the variables of interest for the present work are summarised in Table 1.

Regarding the complexity of the tax system, a study by Poniatowski et al. shows that the dispersion of tax rates within a Member State could have a significant impact on the VAT gap, as *ceteris paribus*, a higher level of dispersion in the tax rates increases the VAT gap. Assuming that this variable could be interpreted as a proxy for the complexity of the tax system, the results confirm that more complex tax frameworks are more difficult to administer without adapted advanced digital tools and effective administration. A high level of complexity is also more likely to be accompanied by a greater number of options for loopholes and by the existence of grey areas, thus rendering tax administration rather cumbersome and contributing to higher costs of compliance for businesses.

Regarding administrative effectiveness, all three studies found a negative relationship, meaning that *ceteris paribus*, a higher level of administrative effectiveness decreases the VAT gap. Poniatowski et al., as expected, found a negative, but insignificant, relationship, while Carfora et al., and the European Commission found a negative and significant relationship. Regarding digitalisation of the tax administration, all three studies confirmed the potential of the adoption of digital tools as an effective means to reduce the VAT gap. All things being equal, a higher level of digitalisation reduces the VAT gap, as demonstrated by Carfora et al. and by the European Commission, which found very significant effects of digitalisation in nine different model specifications.

Regarding the need for more transparency, the study by Carfora et al., showed a positive correlation between an index representing the extent of corruption in each Member State and the VAT gap.The European Commission study indicated a positive impact of trade in 'risky products'. Finally, regarding the need for stronger enforcement of the rule of law, Carfora et al. concluded that progress in this area could have a significant positive impact on a reduction of the VAT gap, as *ceteris paribus*, a higher level of shadow economy increases the VAT gap. While this would appear obvious, this is an interesting confirmation of this relationship, in particular as this has not been taken into consideration in the European Commission's studies.

[44] European Commission, 2019 and 2020, op cit.

[45] A. Carfora, S. Dongiovanni, A. Marabucci, S. Pisani , The Impact of Domestic Factors and Spillover Effects on EU Countries VAT Gap, *Agenzia Entrate*, Discussion Papers, N° 1/2020, 2020.

Table 1 – Reducing the VAT gap – main potential policy transmission channels – recent panel data regression analysis

	Poniatowski et al. (2019)		Carfora et al. (2020)		European Commission (2020)	
Dependant variable	VAT gap		VAT gap		VAT gap	
Main potential transmission channel	variable/ proxy	effect	variable/ proxy	effect	variable/ proxy	effect
Complexity	Dispersion of tax rates within a country	between 0.297 and 0.547				
Administrative effectiveness	Government effectiveness	between -0.112 and -0.118	Total professional tax staff in the adminis-tration	-6.958	Public adminis-tration share	-0.641
Digitalisation	IT expenditure	between -0.174 and -0.191	Relative importance of electronic payment services	-0.015	IT expenditure	between -0.147 and -0.19
Lack of transparency			Corruption index	0.078	Import of 'risky products'	between 0.747 and 1.312
Weak enforcement of rule of law					Shadow economy size	0.163

Source: EPRS.

3. Progress, policy challenges and further potential policy options to reduce the VAT gap and to lower the cost of compliance

As described in the previous section and as highlighted in the literature, the policy challenges the EU legislator faces when aiming to reduce the VAT gap are well identified. Numerous reports and previous action plans have also investigated a series of potential solutions and proposed policy options to put recommendations into practice. In this section, we start by recalling the latest legislative developments in this area. We then describe the policy challenges that remain to be addressed and we draw up a list of potential policy options that could be instrumental in this respect.[46]

3.1. EU legislation state of play

As early as 1970, VAT was established as an own resource to finance European Community' integration. In the ensuing years, with the creation of the single market, Member States agreed on the need to move towards a definitive system, based on the origin principle. Taxation would be based on harmonised rates and would follow the rules of the country of origin. The basis for this system was set out in the Council Directive 92/77/EEC[47], whereby a harmonisation of rates was envisaged with a view to minimising market distortions.[48] A standard rate of 15 % and two reduced rates that could not be less than 5 % were adopted and limited to certain goods or services listed in the directive mentioned above.[49] However, in the Council conclusions of May 2012, Member States recognised the limitations of the origin principle and invited the Commission to analyse different ways to implement the destination principle more efficiently, to achieve a 'VAT system tailored to the single market'.[50] The Commission communication 'VAT Action Plan. Towards a single EU VAT area – Time to decide', recalled this necessity to modernise VAT taxes in order to 'boost jobs, growth, investment and competitiveness'. Some of the proposals to remove VAT barriers in the digital economy, to advance fair taxation on SMEs and to tackle the VAT gap are envisaged to serve those purposes.[51]

In 2017, a Commission communication provided for the introduction of **amendments to the VAT Directive**, with a view to moving towards a definitive regime. To this end, a two-step approach was proposed: first, the definitive regime would be applied to the intra-EU B2B supplies of goods and, second, the new treatment would be extended to all cross-border operations. The concept of an **OSS**, and a **certified taxable person (CTP)**[52], a simplification of rules concerning 'call-off stock' and chain transactions, that would allow VAT made on supplies to be offset against VAT on purchases, were also described in the communication.[53] To qualify as a certified taxable person

46 The results in this section largely build upon the external study by Professor Zavaglia annexed to the EAVA.

47 Directive of 19 October1992 supplementing the common system of value added tax amending Directive 77/388/EEC.

48 Fact Sheets on the European Union: Indirect Taxation, European Parliament website.

49 The current legal framework is based on Directive 2006/112 (VAT Directive), the Implementing Regulation No. 282/11 and Regulation No. 904/2010 on Administrative Cooperation in the field of VAT. This VAT Directive sets the current rates in Articles 96, 97 and 98.

50 Council conclusions on the future of VAT, 3167th Economic and Financial Affairs Council meeting Brussels, May 2012.

51 Communication from the Commission on an action plan on VAT Towards a single EU VAT area - Time to decide, COM/2016/0148 final, April 2016.

52 In other words, a reliable taxpayer.

53 Communication from the Commission on the follow-up to the Action Plan on VAT Towards a single EU VAT area - time to act, COM(2017) 566 final, October 2017.

some requirements must be met by the economic operator: economic solvency, regular compliance with fiscal rules, and internal control of the operations. Once agreed, the status of CTP should be automatically recognised in all Member States, leading to a simplification of the declaration and payment of the tax. To reap the benefits of the OSS and the identification number provided by the 'call-off stock' regime, it is necessary to qualify as a CTP.[54] Other Commission proposals were related to the harmonisation of rates and e-commerce VAT regime. Greater flexibility on reduced VAT rates was deemed necessary by some tax authorities, while the standard rate would be maintained at 15 %.[55] As digital transactions are also vulnerable to fraud, the Commission proposed two legislative initiatives to amend the legal framework of the time: a centralised system to collect data on payments and harmonised rules to collect the relevant documentation of the parts involved in the transactions digitally.[56]

In 2018, the Commission proposed to amend the VAT Directive.[57] The proposal aimed at progressing the destination principle by introducing technical measures directed, mainly, at redefining B2B supply of goods. The concept of 'intra-Union supply of goods' was proposed. A generalisation of the reverse charge mechanism (GRCM), which allows the buyer to declare and deduct the tax due on its purchase in an intra-EU acquisition,[58] and which has been subject to various changes in successive directives was also proposed,[59] aiming at combating fraud more efficiently. A series of proposals for amendments to EU VAT regulations were also adopted via directives and regulations in 2018: Regulations 2018/1541,[60] 2018/1912,[61] and Directive 2018/1910.[62] These legislative instruments introduced 'quick fixes' and 'fundamental principles' to the current VAT system. The 'quick fixes' were based on the regulation of the 'call-off stock' and chain transactions, along with a provision for simplification of the VAT identification number and of the proof of the transport of goods. These legal instruments established fundamental principles or 'cornerstones' of VAT legislation including: the destination principle in the intra-EU cross-border supply of goods, vendor liability (except in those cases in which the buyer is a CTP), and the extension of the OSS.[63]

54 Annexe to this study.

55 Proposal for a Council Directive amending Directive 2006/112 as regards rates of value added tax, COM(2018) 20 final, European Commission, January 2018.

56 Proposal for a Council Directive amending Directive 2006/112 as regards introducing certain requirements for payment service providers, COM(2018) 812 final, European Commission, December 2018.

57 Proposal for a Council Directive amending Directive 2006/112 as regards the introduction of the detailed technical measures for the operation of the definitive VAT system for the taxation of trade between Member States, COM/2018/329 final May 2018.

58 This mechanism remains optional when the supplier of services is not based in the territory where the tax is due. Conversely, it is mandatory when the supplier of goods is not based in the territory and the recipient is a CTP.

59 Directive 2018/2057 of 20 December 2018 amending Directive 2006/112/EC on the common system of value added tax as regards the temporary application of a generalised reverse charge mechanism in relation to supplies of goods and services above a certain threshold and Directive 2018/1695 of 6 November 2018 amending Directive 2006/112/EC on the common system of value added tax as regards the period of application of the optional reverse charge mechanism in relation to supplies of certain goods and services susceptible to fraud and of the Quick Reaction Mechanism against VAT fraud.

60 Regulation 2018/1542 of 2 October 2018 amending Regulations (EU) No 904/2010 and (EU) 2017/2454 as regards measures to strengthen administrative cooperation in the field of value added tax.

61 Implementing Regulation 2018/1912 of 4 December 2018 amending Implementing Regulation (EU) No 282/2011 as regards certain exemptions for intra-Community transactions.

62 Directive 2018/1910 of 4 December 2018 amending Directive 2006/112/EC as regards the harmonisation and simplification of certain rules in the value added tax system for the taxation of trade between Member States.

63 Single VAT Area, European Commission website.

Modernising VAT for cross-border e-commerce is another focus. In the context of the implementation of a digital single market[64] at EU level, the Council has adopted several directives and regulations that are to be implemented gradually. In 2017, the VAT e-commerce package consisted of: first, Directive 2017/2455 (amending Directive 2006/112), regarding obligations for supplies of services and distance sales of goods, which provided for the implementation of the OSS and import OSS.[65] Second, Council Regulation 2017/2454 amending the Regulation on administrative cooperation introduced the special MOSS regime to distance sales of goods and provision of services to consumers.[66] Lastly, Council Implementing Regulation 2017/2459 ensured the uniform implementation of the previous two pieces of legislation.[67] This package was meant to reduce the burden for SMEs in the field of telecommunications, broadcasting and electronic services, through changes to the rules of the place of supply. The general rule establishes that the place of supply is the country where the customer is established. Suppliers have two options: either register for the MOSS in their Member State, or declare and pay the VAT in the Member State of the consumer. The reforms allow suppliers to declare and pay the tax in their own country, on the condition that the transaction does not exceed a threshold established at €10 000.[68] To further complement and amend this package, another Council Directive and Implementing Regulation were enacted in 2019, concerning provisions relating to distance sales of goods and certain domestic supplies of goods to taxable and non-taxable persons. The extension of MOSS to domestic supplies of goods provides by electronic interfaces was also included. These last changes entered into force in January 2021.[69] Most recently, the Commission adopted Implementing Regulation 2020/194 concerning OSS.[70] As a result of these measures, EU businesses, as well as those from outside the EU, that do not charge VAT, will compete on a level playing field in the internal market.

Another **Tax Package for fair and simple taxation was published by the Commission in July 2020**.[71] This new package seeks to ensure cooperation between tax authorities and between EU Member States and third countries, as well as reinforce the fight against tax fraud. Three separate initiatives were adopted to secure 'prosperity through fair taxation': an action plan for fair and simple taxation supporting the recovery, a communication on tax good governance in the EU and beyond, and a proposal on better administrative cooperation.

[64] See Communication from the Commission on a Digital Single Market Strategy for Europe, COM(2015) 192 final, May 2015.

[65] Directive 2017/2455 of 5 December 2017 amending Directive 2006/112 and Directive 2009/132 as regards certain value added tax obligations for supplies of services and distance sales of goods.

[66] Regulation 2017/2454 of 5 December 2017 amending Regulation (EU) No 904/2010 on administrative cooperation and combating fraud in the field of value added tax.

[67] Council Implementing Regulation (EU) 2017/2459 of 5 December 2017 amending Implementing Regulation (EU) No 282/2011 laying down implementing measures for Directive 2006/112 on the common system of value added tax.

[68] Explanatory report on The VAT e-commerce package and the MOSS. What changes on 1 January 2019?, European Commission.

[69] See Directive 2019/1995 of 21 November 2019 amending Directive 2006/112 as regards provisions relating to distance sales of goods and certain domestic supplies of goods and Council Implementing Regulation (EU) 2019/2026 of 21 November 2019 amending Implementing Regulation (EU) No 282/2011 as regards supplies of goods or services facilitated by electronic interfaces and the special schemes for taxable persons supplying services to non-taxable persons, making distance sales of goods and certain domestic supplies of goods.

[70] Commission Implementing Regulation (EU) 2020/194 of 12 February 2020 laying down detailed rules for the application of Council Regulation (EU) No 904/2010 as regards the special schemes for taxable persons supplying services to non-taxable persons, making distance sales of goods and certain domestic supplies of goods.

[71] Special legislation is applicable only to SMEs, due to their limited capacity to deal with heavy compliance requirements and related costs. In this regard, it is worth mentioning the Directive 2020/285 of 18 February 2020, which provides for amendments to the VAT Directive so as to add specific rules aiming at reducing the administrative burden for SMEs.

The **action plan for fair and simple taxation supporting the recovery** contains **25 initiatives** to be implemented between 2021 and 2024, with a view to making taxation simpler and fairer and better adapted to the current challenges of ever-increasing digital consumption. These initiatives provide for the modernisation of VAT rules for financial services and for digital platforms. Clarifying the tax residency rules, as well as progressing the proposed definitive regime, are deemed essential to ensuring a VAT regime fit for the future. Similarly, an EU cooperative compliance framework would be necessary to enhance cooperation between the different tax authorities throughout the Union.[72] Within the digital tax package, rules to modernise VAT reporting obligations, including e-invoicing and the transition towards a single registration, are set to be achieved in 2022,[73] with the aim of simplifying tax rules and reducing the cost of compliance and the administrative burden.[74]

The Commission **communication on tax good governance in the EU and beyond** sets out recommendations to strengthen transparency and promote fair taxation. Improvements to the list of non-cooperative jurisdictions, a reform of the Code of Conduct and the recognition of the role of taxation in ensuring the implementation of the objectives set out in the Agenda 2030 are established in the communication.[75] Finally, the revision of the **Directive on Administrative Cooperation** aims at enhancing the way digital platforms exchange tax related information, to strengthen the transparency of the current tax framework. Under this new legislation, digital platforms would be legally bound to report information on income earned by sellers on their platforms, and Member States to automatically exchange this information.[76] The main objective is to ensure a proper and a fair taxation of revenues coming from the digital economy, as well as keeping pace with the recent EU and international development of this issue.[77]

Furthermore, the abovementioned legal framework is backed by a set of tools and anti-fraud networks, bodies and agencies such as Eurofisc, the European Anti-Fraud Office (OLAF), Europol and the European Public Prosecutor Office (EPPO). In the area of administrative cooperation on VAT, the exchange of information between national tax authorities is coordinated by Eurofisc, a network of tax officials in all the Member States. Eurofisc is also in charge of allowing joint EU audits between some Member States to monitor multinationals. It can exchange information with Europol and OLAF and has access to data on VAT-exempt imports.[78] Recently, reinforced cooperation has been developed with the VAT Forum,[79] with the VAT Expert Group,[80] and in 2019, with the launch of **transaction network analysis (TNA)**, a data mining tool used to enhance the exchange of information on cross-border transactions between tax authorities.[81] OLAF seeks to develop an anti-fraud policy and ensure the proper allocation of EU resources, monitoring of EU funds and related

72 Communication from the Commission on An Action Plan for Fair and Simple Taxation Supporting the Recovery Strategy, COM(2020) 312 final, July 2020.

73 J. Barros, EU watch: the Commission's ambitious tax package, *Tax Journal*, August 2020.

74 Annex to this study.

75 Communication from the Commission on Tax Good Governance in the EU and beyond, COM(2020)313 final, July 2020.

76 Proposal for a Council directive amending Directive 2011/16 on administrative cooperation in the field of taxation, COM(2020) 314 final, European Commission, July 2020.

77 Inception Impact Assessment on a proposal for a Council directive amending Directive 2011/16/EU as regards measures to strengthen the exchange of information framework in the field of taxation, European Commission, February 2020.

78 VAT and Administrative Cooperation, European Commission website.

79 The VAT Forum is a platform where different stakeholders and national tax authorities discuss improvements to VAT legislation in a cross-border environment. For an in-depth analysis of its tasks, memberships and principles, see Commission decision on renewing the mandate of the EU VAT Forum, C(2018) 4422 final, July 2018.

80 The VAT Group of Experts is composed of experts and organisations in the taxation field, aiming to assist the European Commission in this area. See VAT Expert Group, European Commission website.

81 VAT Fraud: New tool to help EU countries crack down on criminals and recoup billion, European Commission press release, 15 May 2019.

staff activities. EU financial interests are protected under a close collaboration between OLAF and EPPO.[82] Finally, Europol provides the EU's law enforcement agency in terms of VAT fraud.[83]

3.2. Policy challenges

The VAT system has undergone profound modernisation in recent years. It is, however, still subject to a series of potential regulatory gaps and loopholes that undermine its effectiveness and efficiency. The study annexed to this EAVA delivers a holistic and detailed overview of the current limitations of the EU legislative framework. Based upon this work and on the wealth of studies in the literature in this area, we have identified some of the main key challenges that the EU still faces in achieving a fair and simpler VAT taxation that effectively supports the pandemic recovery strategy. These challenges are naturally not be seen as completely independent from one another and they therefore need to be addressed as part of a comprehensive and ambitious agenda to deliver mutually reinforcing maximum results.

3.2.1. Complex and fragmented organisation of the VAT tax system at Member State level

Having 27 different tax systems could create opportunities for potential tax abuse and uncertainty. For instance, there are 27 different European VAT codes and, except for businesses that provide telecommunications, broadcasting and electronic services that can use the MOSS, there is still no simplified single European digitalised platform to channel the flow of tax data. In the same vein, rules on application, assessment and collection of data concerning VAT are set out at Member State level. The complexity of having different rates, exemptions and different reporting systems across the EU leaves a lot of room for arbitrage. It also severely complicates the work of tax authorities, as the complex information exchanged is not always comparable and requires additional investigation capacities that are not always available in all Member States. Furthermore, unnecessary complexity hinders cross-border trade, as the cost of compliance is higher for businesses operating in more than one market. For these reasons, a certain level of harmonisation between EU countries would be welcome, allowing for a smoother, more effective and efficient functioning of the EU VAT system.

Additionally, another important weakness of the tax framework is the difference between data from tax revenues and data from collected revenues. This is explained by the time lapse between reporting the transaction to the authorities and the transaction itself. Hence, a portion of tax revenues from the preceding year are recorded as revenues in the next relevant year.[84] Some of the key features that underpin VAT tax are also controversial due to their complex intricacies.[85] For instance, the functioning of the VAT deduction mechanism allows, in certain circumstances, to reduce the net tax owed to the national tax authorities, this is understood as VAT credit. Without the proper controls in place, this mechanism is prone to fraud, such as those aimed at creating fictitious credits in order to benefit from instant liquidity. Opinions also continue to diverge between national tax authorities concerning the GRCM. Similarly, some Member States are reluctant to accept the CTP simplification, as according to them, it could be counterproductive and result in an even more complicated scheme.

3.2.2. Lack of administrative effectiveness

Within the EU, tax issues are primarily addressed by Member State administrations. Some of them, while having sufficient capacities and resources, face a general problem of effectiveness. This could

[82] European Anti-Fraud Office, European Commission website.

[83] About Europol, Europol website.

[84] K. Yiallourou, The limitations of the VAT Gap Measurement, *EC Tax Review*, Nº 4, 2019.

[85] See notably the results of the annexed study.

be explained by obsolete organisation, or as just explained, by national tax bodies that have to deal with sometimes unnecessarily complex tax systems. A lot of progress has been made recently in this area, but further room for improvement remains, especially in the context of cross-border administrative cooperation. This is particularly important in combating carrousel fraud, as authorities attempt to combat it mainly in its first step – to prevent escalation – by investigating occurrences and disallowing the parties to deduct the due tax. This method might not serve as a sufficient deterrent to other fraud however, and besides, disallowing the deduction might not make sense in the context of an 'only subjectively non-existent transaction' in which a true exchange of goods and/or services effectively takes place. The lack of 'free circulation of administrative action' at EU level, the lack of administrative capacity in some Member States and the various levels of administrative effectiveness at Member State level, seriously hampers investigative bodies' efforts to prosecute tax fraud as these issues cannot be averted unilaterally due to their cross-border nature and require cross-border cooperation.

Furthermore, the traditional VAT enforcement mechanism based on tax audits and reporting of aggregate data is not always sufficient to combat fraud. More frequent reporting could be an option to enhance the current mechanism, while a full digitalisation of reporting would greatly facilitate this endeavour. However, if administrative capacities have not been properly deployed by some national authorities, more frequent reporting might result in higher compliance costs. As mentioned above, due to the lack of an internal market of administrative action, the bodies and tools that the EU has deployed to address taxation issues continue to display shortcomings in fighting fraud at EU level. Moreover, the lack of enforcement of OLAF's recommendations or the fact that some bodies have a wider mandate (i.e. not only dedicated to combating fraud, such as Europol), hinder their efforts to detects perpetrators and prosecute financial crimes.[86] The current mechanisms available at Member State level could therefore be significantly simplified and improved to arrive at more coordinated and effective administrative action to tackle the VAT gap.

3.2.3. Lack of digitalisation and integrated advanced systems for analysing and exchanging information

The rapid development of the digital economy is exacerbating the need for reform of the tax administration in many Member States as it is increasingly clear after the Covid-19 pandemic that some tax authorities are still lagging behind. Moreover, this relative lack of digitalisation in some Member States also constitutes both a cause and a consequence of the lack of comparable and reliable data at EU level, which is one of the main limitations to analysing the effects of tax avoidance. In the context of the Commission's 2030 digital compass,[87] a set of tools has been proposed and should be implemented in the coming years. One of these proposals – the European digital identity – should allow citizens and businesses alike to access a wide variety of services online and recognised in all EU countries. To take this proposal a stage further, Member States have to deploy a common toolbox by late 2022. The VAT e-commerce packages also aim at increasing national tax authorities' capacity in this field, in particular regarding the Member States' adoption and use of digital tools for tax reporting and to combat tax fraud. This challenge should not be taken lightly, as for instance, the extent to which Member States are applying the agreed standardised invoices[88] format still differs significantly, resulting in stark disparities in the effectiveness of exchanges of VAT information. A European invoice format also coexists with national formats, creating unnecessary multi-layered levels of confusion. Paper invoices are even still used extensively by some tax authorities, leading to inefficiencies as paper versions require more time and cost for

[86] A. Williams, Fighting fraud in the EU: a note on icebergs and evidence, *ERA Forum*, № 14, 2013, pp. 227-214.

[87] Europe's Digital Decade: digital targets for 2030, European Commission website.

[88] Those that follow the EU format: XML UBL 2.1 and CII 16B set out in the Directive 2014/55 of 16 April 2014 on electronic invoicing in public procurement.

completion. Fragmented reporting systems, with some incompatible software and formats for automatic exchange of information, are constantly reported as a main hurdle to progress on a more integrated and simplified reporting system.

The deployment and greater use of artificial intelligence (AI) constitute a new challenge for tax authorities as new skills and new working methods have to be developed. The use of these more advanced tools could however significantly enhance the flow and treatment of VAT data for all national tax authorities. To implement this, further investment in this field would be necessary. National tax authorities would also have to think about a legal framework to address the challenges that AI might entail, as taxpayers' rights might be put at risk in the context of a digital administration. Use of AI should definitely enhance the exchange of data currently managed by the VAT information exchange system (VIES), the MOSS and OSS, as these platforms will reap the benefits of further innovation, resulting in better monitoring and potentially higher tax revenue collection. Similarly, AI could reinforce the fight against tax evasion, assisting the investigation of complex financial crimes. Collection and analysis of VAT data could be further boosted at EU level, especially if other tools are also developed in close cooperation with a fully-fledged AI policy, including big data and network analysis.

3.2.4. Lack of transparency

Some Member States remain reluctant to exchange information on tax issues, as they consider that this is a strategic field where some aspects fall under privacy rights for individuals or organisations. Low tax jurisdictions are also naturally less prone to be fully transparent about taxation. Some,[89] however, recall that this lack of transparent, easily-available and disaggregated VAT data at regional, local and even individual level can significantly hinder efforts to combat the VAT gap. Although the EU has adopted measures to enhance its position in combating tax fraud, due to the current lack of transparency and to the lack of visionary leadership at EU level in this area, their impact will remain limited.

Furthermore, new business models and new consumption models could pose a challenge for tax authorities in terms of collecting VAT data and even in properly taxing transactions between customers and digital providers. There is, for instance, increasing concern regarding under-reporting of earnings resulting from digital platforms on the part of taxpayers. In addition, national tax authorities do not have the proper means and the information to address the problem if a digital platform is between the recipient and the supplier.[90] New means of payment, such as cryptocurrencies have recently attracted a lot of attention as they could be used to fuel the development of invisible markets and hidden transactions. Similarly, the increasing use of electronic currencies, if not regulated properly, might result in an increase in anonymous online payments, which could further contribute to lower levels of transparency.

3.2.5. Disaggregated enforcement

Tax policy is a field with substantial differences between Member States, as tax remains a prerogative of each individual Member State and taxation policy decisions require unanimity in the Council.[91] A certain level of harmonisation is nevertheless established in Article 113 TFEU, to the extent that national laws, regulations or administrative provisions may affect the 'establishment or functioning of the internal market and to avoid distortion of competition'. Unanimity in the Council,

[89] M. Karaboytcheva, Addressing the VAT gap in the EU, EPRS, European Parliament, December 2020.

[90] Inception Impact Assessment on a Proposal for a Council Directive amending Directive 2011/16/EU as regards measures to strengthen the exchange of information framework in the field of taxation, European Commission, February 2020.

[91] Communication from the Commission on Towards a more efficient and democratic decision making in EU tax policy, COM(2019) 8 final, January 2019.

following consultation of the European Parliament and the Economic and Social Committee, is always required.[92] The ability of the EU to act is limited to supporting national authorities, while both the EU and the Member States shall take measures to counteract any illegal activity in accordance with Article 325 TFEU. Globalisation, digitalisation, increasing capital movement and other emerging challenges could present reasons to justify the adoption of common solutions at EU level. The European Commission presented a communication proposing a shift to qualified majority voting in the area of taxation, on the premise that the scale of these challenges reaches beyond borders.[93]

3.3. Policy options and opportunities to progress

The policy options discussed below are taken from the study in annexe to this report and from a comprehensive review of the recent literature. The list does not pretend to be exhaustive, but rather covers the main policy options aiming at addressing the policy challenges identified in the previous section. An assessment of the potential links and qualitative impacts of each option is given in Table 2.

3.3.1. Strengthen administrative cooperation and reinforce EU technical support

Cooperation between national authorities and with the EU is the cornerstone of any successful action against tax fraud. Much progress has been made through the Directives on Administrative Cooperation (DAC1 to DAC6 directives). Cooperation could nevertheless be further strengthened and promoted, in particular as the digital economy is now taking centre stage. The latest revision of the **Directive on Administrative Cooperation (DAC7)** seeks to address some of these challenges. Its main purpose is to enhance cooperation between Member States on the exchange of information regarding tax duties in the digital economy.[94] The joint investigation team could also be reinforced, while best practices and the reinforcement of tax administration capacity could be conducted. Best practices, in particular on simplification of multi-layered administrative burden and on the adoption of digital tools could benefit from further support and assistance. The recent proposal for a regulation on a **technical support instrument**[95] might be instrumental in this respect.

3.3.2. Extend the GRCM and split payment mechanisms

Inadequate and complex VAT collection systems present a sizeable problem, as tax authorities often have to investigate and to prevent fraud with insufficient and fragmented information. As highlighted in the study in annex, the reverse charge and split payment mechanisms could be possible remedies.[96]

The reverse charge mechanism operates in the context of an intra-EU acquisition. The buyer, in this case, declares and deducts the due tax on its operations. As this measure has proven efficient in

92 See Article 115 Treaty on the Functioning of the European Union (TFEU).

93 Communication from the Commission on Towards a more efficient and democratic decision making in EU tax policy, COM(2019) 8 final, January 2019.

94 Inception Impact Assessment on a Proposal for a Council Directive amending Directive 2011/16/EU as regards measures to strengthen the exchange of information framework in the field of taxation, European Commission, February 2020.

95 Proposal for a regulation of the European Parliament and of the Council establishing a Technical Support Instrument, COM(2020) 409, European Commission, May 2020.

96 Although these two options could increase the complexity of the system, this disadvantage might be offset by the increase in transparency. Administrative effectiveness would be put to the test. In this context, a high level of digitalisation might help.

counteracting carrousel fraud, Member States are authorised to deploy a **generalised reverse charge mechanism** under the assumption that certain criteria are met. These criteria are: the mechanism shall be proved to be the only option to combat fraud; the parties involved shall comply with reporting obligations through electronic means, as e-invoicing and the economic benefits of using this mechanism shall offset the losses of the normal method by at least 25 %.[97] The use of this mechanism has been limited to those sectors worst affected by tax evasion. However, a wider use of this mechanism could be envisaged, leading to better national tax authority control of VAT obligations.

Similarly, a more widespread use of the **split payment** mechanism may also be instrumental. Through this mechanism, the net sale amount and the VAT due are paid by the recipient to two different supplier bank accounts. The latter account, the one with the VAT amount, can only be used for the purposes established by VAT regulation. The VAT amount and the net sale amount or taxable base are therefore split. This mechanism has proven to be efficient in combating both VAT fraud and non-compliance, as it prevents the supplier from charging the tax and disappearing without declaring it to the tax authorities (MTF). Presently, this mechanism is only deployed in some Member States and a broader implementation might entail an increase in the cost of compliance.[98]

3.3.3. Generalised EU VAT number

The VAT number is an essential tool for the tax authorities as it allows them to identify the tax liable operator and the jurisdiction where the transaction took place. As invoices flow into European and national databases, tax authorities can cross-check the data in an attempt to prevent fraud and for statistical reasons. Although EU VAT directives provide for certain level of harmonisation, a **European VAT number** has not been yet properly implemented throughout the EU. As already mentioned, each Member State is responsible for the application, assessment and collection of data regarding VAT, which leads to different rules being applied and to an increase in compliance costs for businesses involved in cross-border trade. Economic operators would benefit from access to a number that is recognised throughout the EU and registered in VIES. In addition, as VAT revenues are partially paid into the EU's own resources,[99] there is always the need for a more uniform VAT number framework. This number could simply result from joining the country code and the national VAT code.[100] Another development of this approach that could also be considered is extending this number even to those European operators involved in transactions beyond the EU borders.

3.3.4. Accelerate adoption of a mandatory EU electronic invoice

A potential benefit of advancing digitalisation among tax authorities is that it could minimise the risk of tax evasion and reduce the cost of compliance. As mentioned above, there is a standardised EU format for electronic invoices, but the extent to which Member States use it varies significantly. The use of the XML UBL format[101] would enhance the exchange of data between tax authorities and facilitate certain cross-border operations (i.e. reconciliation). In an attempt to reduce VAT fraud, **mandatory electronic invoices** across the EU could provide a policy option, as a higher level of uniformity concerning VAT data would then be possible. Furthermore, mandatory electronic invoices could be an effective tool in the fight against tax fraud involving VAT credits. In the same vein, they could assist implementation of an **invoice clearance model at EU level**, which would

97 Annex to this study.

98 Analysis of the impact of the split payment mechanism as an alternative VAT collection method, European Commission, December 2017.

99 Fact Sheets on the European Union: The Union's revenue, European Parliament. Approximately 10 % of the total EU own resources" revenue is due to this tax.

100 See Article 215 of the VAT Directive.

101 EU format: XML UBL 2.1 and CII 16B, set out in Directive 2014/55 of 16 April 2014 on electronic invoicing in public procurement.

allow national tax authorities both to recognise the validity of the invoice and to report real-time tax data. This would stand national tax authorities in good stead in the detection of fraud in due time. In the communication on an action plan for fair and simple taxation, the Commission highlighted the need to make electronic invoices mandatory to modernise VAT reporting obligations.[102] The deadline for this measure has been set for 2022/2023. Some countries have already deployed the measure, including France, Italy, Poland and Portugal. A common solution at EU level, however, remains a necessity. The key is to find a balanced approach to driving digitalisation, while at the same time ensuring respect for the rules on privacy and the fundamental principles governing taxation. This could pave the way for promotion of a single digitalised platform.

3.3.5. Continue development of the VAT OSS

Currently, the MOSS provides an electronic system allowing service providers supplying telecommunications, broadcasting and electronic services to consumers in the EU to declare and pay VAT due in all EU Member States in one single Member State. From 1 July 2021, the MOSS has been extended to all business-to-consumer (B2C) services taking place in EU Member States where the supplier is not established. This new OSS will also apply to all distance sales of goods within the EU and to certain domestic supplies of goods facilitated by electronic interfaces under certain conditions. Moreover, another new scheme will be created for the declaration and payment of VAT on distance sales of low-value goods imported from outside the EU, the import one-stop shop (IOSS).

3.3.6. Accelerate the move towards a central electronic system of payment information (CESOP) and a single digital platform

On 18 February 2020, the Council adopted a legislative package requiring payment service providers to transmit information on cross-border payments originating from Member States and on the beneficiary of these cross-border payments.[103] As of 2024, this information will then be centralised in a European database (**CESOP**), where it will be stored, aggregated and cross-checked against other European databases. All information in CESOP will then be made available to Member States' anti-fraud experts via Eurofisc. This new tool could help tax authorities to properly control the correct fulfilment of VAT obligations on cross-border B2C supplies of goods and services.

A more rapid transition towards a **single digital platform** would also contribute to clear any ambiguity regarding the exchange of data and ensure identical treatment across Member States. This potential platform could make the most of the tools already in place, including MOSS, OSS and TNA. Although the latter, TNA, is a powerful tool for the exchange and process of data, it is necessary to advance towards a platform that is easily accessible to all tax authorities. The mandatory use of electronic invoicing, coupled with a strategy based on AI, would increase the likelihood of the digital platform succeeding.

3.3.7. Develop and invest in TNA and other advanced analytical tools

As mentioned above, **TNA** is a data mining tool that assists Member States in their fight against tax fraud by ascertaining the successive stages in any given relevant transaction. It provides an automated network that is interconnected with the national platforms that help by swift reporting of suspicious VAT transactions.[104] It allows Member States to cross-check and spot inconsistencies

[102] Communication from the Commission on An Action Plan for fair and simple taxation supporting the recovery strategy, COM(2020)312 final, July 2020.

[103] Directive 2020/284 of 18 February 2020 amending Directive 2006/112/EC as regards introducing certain requirements for payment service providers. Regulation (EU) 2020/283 of 18 February 2020 amending Regulation (EU) No 904/2010 as regards measures to strengthen administrative cooperation in order to combat VAT fraud.

[104] New Data Mining Tool to Combat VAT Fraud, The European Criminal Law Associations' Forum, September 2019.

in the information on VAT returns regarding cross-border operations provided by VIES, Intrastat, MOSS, IOSS and OSS. The TNA could enhance the exchange of tax information, providing for an effective sharing tax data system that could be complementary to the national risk assessment of suspicious transactions.[105] Similarly, TNA is a valuable tool in the exchange and coordination of information concerning tax payers between other EU bodies, such as Europol, OLAF or Eurofisc.

The study in annex therefore flags TNA as a beneficial tool in terms of efficiency, transmitting and storing tax data. The tool is however relatively new, as it was implemented in the spring of 2019,[106] and room remains for improvement. Moreover, it is not without risk, particularly concerning taxpayer privacy rules and the difficulties in using such software for collecting and exchanging tax information at EU level. For this reason, national authorities are likely to themselves discover the correct level of trade-off between the tool's advantages and disadvantages. To benefit fully from TNA, its use should be aligned with the deployment of the CESOP, the enhanced OSS mechanism and the idea of making electronic invoices mandatory at EU level. Additionally, use of TNA would reap the benefits of a far-reaching AI proposal concerning the exchange of tax information across countries.

3.3.8. Qualified parties' VAT credit certification obligations

As discussed above, VAT credit allows businesses to reduce the net tax they owe to the government. On one hand, it constitutes a valuable source of instant liquidity for businesses; on the other hand, it involves a mechanism that could be prone to fraud, as businesses could create fictitious credit through other organisations linked to them. The aim of this operation is to allow businesses to benefit from instant debt paying liability. The issue might be especially acute if these fictitious credits are offset against tax debts, implying a twofold fraud. Similarly, authorities closely monitor tax credits used for equity injections as well as those used to comply with social security obligations, as they could constitute a part of fraudulent operations.

To address these issues **VAT credit certification obligation** on qualified parties could be introduced. To single out which parties are to be covered by this policy option easily, the proposal should be accompanied with the description of the minimum requirements that these parties should meet to benefit from tax credits. Additionally, it could contain an insurance policy to comply with national tax obligations, as well as administrative and criminal measures if the credit payments fail. To a certain extent, this proposal could be harmonised at EU level, otherwise forms of harmful competition may arise, especially, in cases where tax credits are allowed for certain investments. Similarly, it should be aligned with the SME tax incentives already in place.[107] The idea of making use of an electronic invoice mandatory is definitely consistent with this policy option, as it would facilitate detection of fraudulent tax credit operations. In the same vein, CESOP would provide a useful database to cross-check unlawful tax refunds and tax credits.

3.3.9. Further harmonisation of special schemes for SMEs

To address the remaining distortions in the current EU VAT system and to reduce the costs imposed on SMEs, the Commission introduced a proposal for a comprehensive simplification VAT package for SMEs.[108] The proposal aims at reducing compliances costs and involves a review of the special

[105] Good Practice Guide, Applying Data and Analytics in Tax Administration, Intra-European Organisation of Tax Administrations (IOTA).

[106] VAT Fraud: New tool to help EU countries crack down on criminals and recoup billions, European Commission website.

[107] For an in-depth analysis of the tax incentives for SMEs, see: S. M. Bergner, R. Bräutigam, M.T. Evers, C. Spengel, The Use of SME Tax Incentives in the European Union, Centre for European Economic Research (ZEW), Discussion Paper No 17-006, January 2017.

[108] Proposal for a Council directive amending Directive 2006/112/EC on the common system of value added tax as regards the special scheme for small enterprises, COM/2018/021 final, European Commission, January 2018. Council

scheme for small enterprises under the VAT Directive. It is therefore linked to the proposals for removing VAT obstacles to cross-border e-commerce and to the proposal on a definitive VAT regime for intra-EU cross-border trade. The proposal would introduce an EU-wide threshold allowing more companies to benefit from simpler rules reducing SME's VAT compliance costs, along with national exemption thresholds in Member States. The proposal however does not sufficiently address the lack of harmonisation between rules in each Member State. A renewed EU focus on harmonising simplified VAT obligations, simplified procedures for charging and collecting VAT would be welcome.

3.3.10. Move towards a definitive VAT regime

As already explained, the Commission proposal for a definitive VAT regime involves a switch to a destination-based VAT regime for B2B cross-border goods transactions. This would replace the existing 'temporary' origin basis. The latest plan would require vendors in cross-border transactions to charge and collect the VAT of their customer's country of residence in the case of cross-border B2B sales. The collected VAT would then be remitted by the vendor to their national tax authority. The national tax authority would in turn distribute the VAT to the appropriate Member State where the vendor's customers are located. However, Member States appear sceptical regarding the proposed system. In particular, Member States agreed that the reform should proceed only if it can be demonstrated that the potential significant upheaval and burden on businesses and tax authorities can be justified in terms of reduced VAT fraud.

3.3.11. Shift to qualified majority voting on taxation issues in the Council

Globalisation and digitalisation, among other recent developments, are an increasingly powerful justification of the need for more common taxation solutions at EU and international level. In 2019, the European Commission presented a communication proposing a shift to qualified majority voting in the area of taxation on the evidence that the scale of some of the challenges in this area reach beyond Member States' borders.[109] This would allow for more flexible procedures.[110] The following options envisaged in the Treaties were discussed in the communication: first, enhanced cooperation procedure should at least nine Member States agree on advancing towards a proposed initiative, as was the case for the financial transaction tax – although this progress halted when discussed at the Council; and second, qualified majority voting, which is established in the Treaties to either 'counter fraud and any other illegal activities affecting the financial interests of the Union',[111] or to ensure competition in the internal market, after consulting the Member States concerned.[112]

3.3.12. Change the EU taxation framework to improve enforcement – move towards an EU treasury

As emphasised by the study in annexe, even with a fairly comprehensive EU regulatory framework in the field of administrative cooperation and with legislation offering various possibilities for the exchange of information, the potential for elaborated fraud is still present. This could mainly be

Directive (EU) 2020/285 was adopted by the Council on 18 February 2020. Provisions amending Directive 2006/112/EC are to be adopted and published by Member States by 31 December 2024 and provisions amending Regulation (EU) No 904/2010 will apply from 1 January 2025.

[109] Communication from the Commission on Towards a more efficient and democratic decision making in EU tax policy, COM(2019) 8 final, January 2019.

[110] Communication from the Commission on Towards a more efficient and democratic decision making in EU tax policy, COM(2019) 8 final, January 2019.

[111] See Article 325 Treaty on the Functioning of the European Union (TFEU).

[112] See Article 116 Treaty on the Functioning of the European Union (TFEU) and Communication from the Commission on Towards a more efficient and democratic decision making in EU tax policy, COM(2019) 8 final, January 2019.

explained by the complexity created by the current fragmented system and by varying degrees of administrative effectiveness and transparency in the Member States. The setting up of centralised procedures at EU level for verification and assessment in relation to VAT and for harmonising the penalty regimes would represent an ambitious move towards addressing the roots of the current VAT gap. The European Parliament [113] has proposed the creation of an EU treasury that could equip the Union with greater capacity to apply the existing economic governance framework and facilitate development of the euro area. In response, in 2017, the Commission proposed[114] that an EU treasury could be entrusted with (i) the economic and fiscal surveillance of the euro area and of its Member States, as well as (ii) the coordination of issuing a possible European safe asset, and (iii) the management of the macro-economic stabilisation function. The proposed treasury could be placed under the responsibility of an EU finance minister. As all Member States collect VAT through this type of centralised approach, it appears highly surprising that such an option is not extensively discussed and integrated in impact assessments at EU level.

[113] Resolution of 16 February 2017 on budgetary capacity for the euro area, European Parliament.

[114] Reflection Paper on the deepening of the Economic and Monetary Union, European Commission, May 2017.

Table 2 – Impact of policy options on the main channels of transmission

Policy options	Reduction in tax system complexity	Administrative effectiveness	Digitalisation	Transparency	Enforcement efficiency
Strengthen administrative cooperation and reinforce EU technical support	0	++	+	+	0
Extend the GRCM and split payment mechanisms	0	+	0	0	0
Generalised EU VAT number	++	+	+	++	+
Accelerate the adoption of EU mandatory electronic invoice	++	+	++	+	+
Continue the development on the VAT OSS	++	+	++	+	0
Accelerate the move towards a central electronic system of payment information (CESOP) and a single digital platform	+	+	++	++	+
Develop and invest in TNA and other advanced analytical tools	0	+	++	0	+
Qualified parties' VAT credit certification obligations	0	+	0	++	+
Further harmonisation of special schemes for SMEs	++	+	0	+	0
Move towards a definitive VAT regime	0	+	0	+	+
Shift to qualified majority voting on taxation issues in the Council	+	0	0	+	+
Change the EU taxation framework to improve enforcement – move towards an EU treasury	++	++	0	+	++

Source: EPRS.

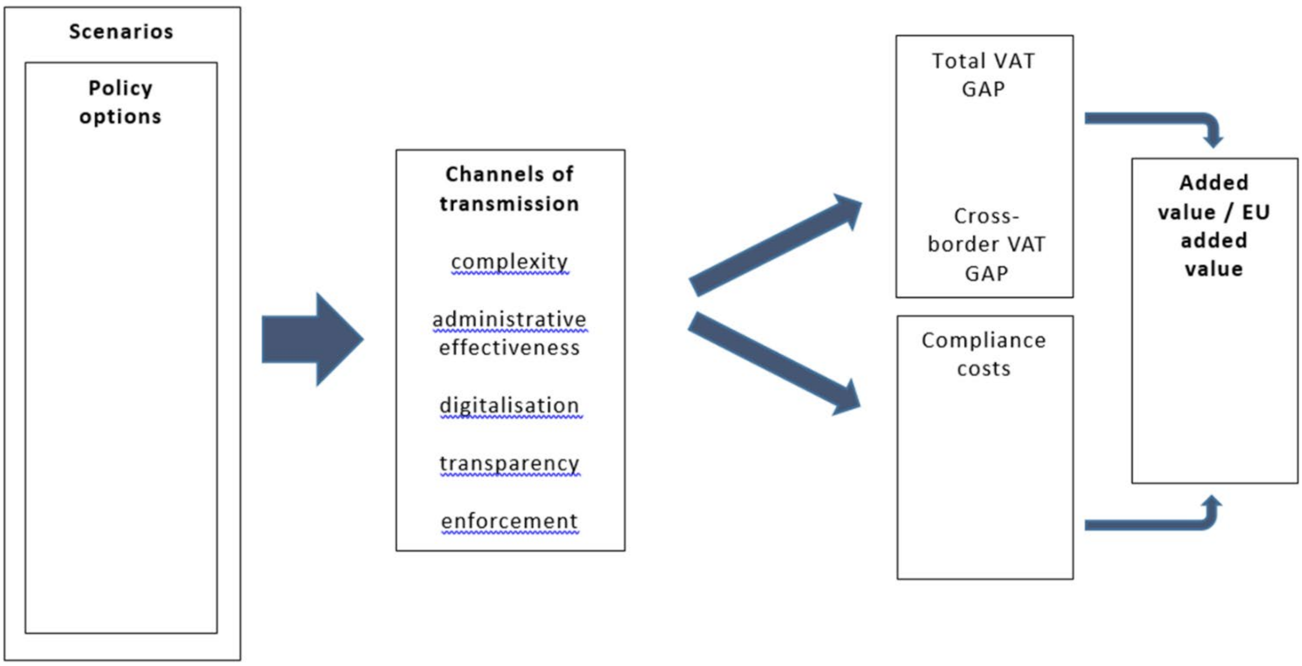
4. Comparative analysis of the EAV of various policy options

In this section, we start by describing the conceptual framework and by estimating the relationships of the model related to this framework. Then, we present the different scenarios and the assumptions underpinning the evaluation of implementing the policy options previously described. We follow by discussing the results of the quantification of the EAV. Finally, we broaden the scope by conducting a qualitative assessment for different stakeholders.

4.1. Conceptual framework and analytical model

From an economic point of view (see Figure 5), the added value of fair and simpler VAT taxation supporting the recovery strategy could be analysed as the sum of the net potential impact stemming from a reduction of the VAT gap, including the cross-border VAT gap and of the net potential impact on compliance costs for businesses. To evaluate these impacts, the effects of each policy option on the main channels of transmission (summarised in Table 2 above) should first be considered. Then, the econometric relationships between improvements in each channel of transmission and the VAT gap have to be estimated. Similarly, the econometric relationships between improvements in each channel of transmission and compliance costs also have to be estimated. With an estimation of the various relations in hand, a number of scenarios can be defined and the added value corresponding to each scenario calculated. A final comparison between the added value for each scenario allows an estimate of the EAV and analysis of the results.

Figure 5 – Conceptual framework



Source: EPRS.

Transmission channels have already been extensively identified in recent studies on the VAT gap (see Table 1). In line with these results, our model therefore distinguishes between five channels of transmission: complexity of the taxation system; administrative effectiveness; extent of digitalisation; level of transparency; and enforcement of the rule of law. Based upon this conceptual framework, we can proceed with the statistical estimation of the two relationships between the transmission channels and the VAT gap and between the transmission channels and the total amount of compliance costs. We use a cross-sectional approach, with data for 2015-2019. Our overarching model could be written as follows:

$$VAT\ gap = \propto_1 * complexity + \propto_2 * admin\ effectivenes + \propto_3 * digitalisation + \propto_4 * transparency + \propto_5 * rule\ of\ law + \mu \quad (3)$$

$$Compliance\ costs = \beta_1 * complexity + \beta_2 * admin\ effectiveness + \beta_3 * digitalisation + \beta_4 * transparency + \beta_5 * rule\ of\ law + \mu \quad (4)$$

Due to the number of variables demonstrated in the literature and of the potential combinations of model specifications, we have selected proxy variables related to each transmission channel and which have already proved statistically significant in the literature. Our final reduced dataset consists of six key explanatory variables. A summary of the descriptive statistics of these variables is shown in Table 4. The expected indications of the relationship with the dependant variables is given in brackets next to the names of each explanatory variable. As some of the listed variables are significantly correlated with others, we also consider the potential co-linearity and endogeneity problem, which is partly tackled by the selection of variables for each specification. All relationships are estimated for the whole period available for the dependant and explanatory variables, using a linear regression methodology.

Table 3 – Descriptive statistics – dependant variables

Dependant variables	Unit	Original source	Mean	Standard deviation	Min.	Max.
VAT gap	% of total VAT theoretical revenues	DG Taxud	12 %	9 %	1 %	37 %
Compliance costs	% of total VAT revenues	DG Grow	3.5 %	2.2 %	0.6 %	10 %

Source: EPRS

In the first equation, the dependant variable is the VAT gap. Our first explanatory variable, acting as a proxy for complexity, is a variable on the burden of government regulation. The reasoning here is relatively straightforward, as *ceteris paribus*, one would expect Member States that display a high level of administrative burden to also show a larger VAT gap. The second variable, acting as a proxy for the lack of administrative effectiveness, is the amount of VAT arrears registered for each Member State. Member States that are not effective at collecting and reimbursing VAT could also be expected to record a higher level of VAT gap. The third variable relates to the transparency of government policy-making, as a more transparent administration where exchange of information is automatic and reliable should, *ceteris paribus*, display lower levels of VAT gap. The fourth variable concerns the extent of adoption of digitalisation in public administration. It is represented by the expenditure on information and communication technology (ICT) in each Member State's tax administration. The reasoning is that Member States where digitalisation is more advanced should present a lower level of VAT gap. The last explanatory variable concerns the strength of the enforcement of the rule of law, proxied by an estimation of the extent of organised crime in each Member State. All things being equal, Member States with a high level of organised crime are expected to have more difficulties fighting VAT fraud and thus should exhibit higher levels of VAT gap.

The reasoning for the second equation is relatively similar. A higher level of burden of government regulation and a higher level of organised crime should, *ceteris paribus*, contribute to increasing the compliance costs for businesses. A more transparent administration and a higher level of expenditure on ICT in the public sector should, *ceteris paribus*, contribute to reducing compliance costs for businesses. The only difference here is that a variable regarding the level of difficulty to pay taxes is used as a proxy for the effectiveness of the administration in each Member State. This variable appears better adapted to the explanation of the compliance costs for business, as *ceteris paribus*, Member States where businesses face difficulties in settling their VAT bill could be expected to also face higher compliance costs.

Table 4 – Descriptive statistics – explanatory variables

Channel of transmission	Explanatory variables (proxy)	Unit	Original source	Mean	Standard deviation	Min.	Max.
Complexity	Burden of govern-ment regulation (+)	Index*	WEF	61	13	35	86
Lack of administrative effectiveness	VAT arrears (+)	Values *	OECD	37 %	59 %	1 %	335 %
Lack of administrative effectiveness	Difficulty in paying taxes (+)	Index	World Bank	18	7	5	40
Digitalisation	Tax admin-istration spending on ICT (-)	Values **	OECD	0.019 %	0.019 %	0.0005 %	0.12 %
Transparency	Trans-parency of govern-ment policy-making (-)	Index**	WEF	64	14	41	90
Weak enforcement of rule of law	Extent of organised crime (+)	Index* **	WEF	28	11	3	58

Index*: 0 = not burdensome – 100=extremely burdensome.
Values*: % of VAT collected.
Values**: % of GDP.
Index**: 0 = difficult for businesses to obtain information about changes in government policies and regulations affecting their activities – 100 = easy.
Index***: 0 = not at all, imposes no costs – 100 = to a great extent, imposes large costs.

Source: EPRS.

The results of the econometric estimation for the model with the VAT gap as a dependant variable are shown in Table 5 (equation (3)), while the detailed statistical results are given in an annexe to this study. All the models show a significant relationship between the variables under consideration, with a relatively high degree of explained variability.[115] As we can see in Table 5, all the variables also have the right signs. The variables linked to complexity and lack of administrative effectiveness are statistically significant, to a high degree, in all the specifications tested. Transparency and digitalisation also appear as significant in some partial specifications. Finally, the variable on the enforcement of the rule of law exhibits a significant level of relationship in the two specifications tested. When included with the variables on transparency and digitalisation, a relative correlation however affects the results of the models.

According to our estimation (see specification 4 in Table 5), in order to decrease the VAT gap by one percentage point (*ceteris paribus*), the index on burden of government regulation needs to decrease by close to six units, which for the EU on average means a move from an index of currently 61 units

[115] See values for F test and R squared.

to around 55 units. Here, VAT arrears would need to decrease substantially, by close to 17 percentage points, from currently 37 % on average to around 20 %. Transparency would need to increase by 15 units, which for the EU on average means a move from an index of currently 64 units to around 79 units, a substantial move towards the best performers in the area. Spending on ICT for tax administration should continue, rising from currently an average of 0.019 % of GDP to 0.022 % of GDP, which for the EU would represent an increase of around €0.5 billion in ICT operation and capital expenditure for Member States' tax administrations. Finally, substantial progress on fighting organised crime should be recorded. On average for the EU, the index should move by 7 units from a value of currently 28 to 35 units.

Table 5 – Econometric estimations (dependant variable is VAT gap in %)

	(1)	(3)	(3)	(4)
Complexity (+)	0.002 ***	0.002***	0.001*	0.002***
Lack of administrative effectiveness (+)	0.051***	0.065***	0.063***	0.059***
Digitalisation (-)	-	-77.6***	-	-35.11
Transparency (-)	-0.0008***	-	-	-0.0006**
Weak enforcement of rule of law (+)	-	-	0.001*	0.001**
R squared	0.80	0.79	0.79	0.81

*** p<0.01, ** p<0.05, * p<0.15

Source: EPRS.

The results of the econometric estimations for the compliance cost as a dependant variable are shown in Table 6 (equation (4)), while the detailed statistical results are given in annexe to this study. Again, all the models show a significant relationship between the variables under consideration with a relatively high degree of explained variability.[116] As we can see in Table 6, all the variables have the right signs. The variables linked to complexity and digitalisation are statistically significant to a high degree in all the specifications tested. Lack of transparency also appears as significant in four partial specifications, albeit at low significance degrees. The variable regarding the enforcement of the rule of law does not exhibit a significant level of relationship in the specification tested. Again, this might be explained by a strong correlation with the other variables in the model. Regarding the variable on the lack of administrative effectiveness, a first proxy, the VAT arrear indicator, does not appear to be significant.[117] We replace it with the broader index on the difficulty experienced to pay taxes, which displays the right sign and a significant relationship (see specification 5).

According to our estimation (see specification 5), in order to decrease compliance costs by one percentage point (*ceteris paribus*), the index on burden of government regulation needs to decrease by 18 units, which for the EU on average means a move from an index of currently 61 units to around 43 units. This would represent a significant improvement in this area. The index regarding the difficulty experienced to pay taxes would also need to decrease very substantially, by close to 12 units, from a current average of 18 units, to around 6 units, which is almost the minimum

[116] See values for F test and R squared.

[117] We also test the model with a series of specifications, including the other variables from the World Bank database. Only the most significant results are presented.

recorded for the EU for this variable. Transparency would need to be improved in all Member States to a level below the one currently recorded for the best performer in this area. Assuming a less ambitious move from the current average of 64 units to the value for the best EU performer (which is 41 units), progress in this area would at maximum lead to a 0.3 % reduction in the compliance costs for businesses. Tax administration spending on ICT would also again need to be substantially boosted, from a current average of 0.019 % of GDP to almost 0.025 % of GDP, which for the EU would represent an increase of almost €1 billion in ICT operation and capital expenditure for Member States' tax administrations. These results are naturally unsurprising and largely confirm the estimations already provided in the literature.

Table 6 – Econometric estimations (dependant variable is compliance costs in %)

	(1)	(2)	(3)	(4)	(5)
Complexity (+)	0.0007***	0.0007***	0.0008***	0.0007***	0.0005***
Lack of administrative effectiveness (+)	-	-	5.91E-05	2.7E-05	0.0008***
Digitalisation (-)	-31.7***	-25.1***	-23.8***	-23.4***	-17.5**
Lack of transparency (-)	-	0.0001*	0.0001*	0.0001*	0.0001*
Weak enforcement of rule of law (+)	-	-	-	0.0002	-
R squared	0.80	0.80	0.81	0.81	0.82

Source: EPRS *** $p<0.01$, ** $p<0.05$, * $p<0.15$

4.2. Description of scenarios and results of the simulations

Based upon the same conceptual framework, and considering the various policy challenges and the policy options to address them described in the previous sections, we distinguish between a baseline and four alternative scenarios. We assume a full implementation over a five year period (2020 to 2025). The **baseline scenario** (limited cooperation) considers a situation where no major change is made to the regulation of VAT in the EU. This corresponds to a status quo scenario where cooperation is limited and where additional policy options to significantly reduce the VAT gap and to reduce compliance costs for businesses are not introduced or are further delayed. This would therefore also correspond to very low standards for harmonisation and convergence at EU level. As a result, under such a situation, we assume that past trends observed for Member States in all transmission channels will continue to evolve in an identical trend (see Figure 6 below). In this scenario, for the EU on average, and thanks to the measures already implemented in the past, the burden of government regulation and the difficulty experienced in paying taxes indices continue to decrease slightly, from a level of respectively 60 and 17.4 units in 2020, to around 58.7 and 16.8 units in 2025. Very little progress is registered on reducing VAT arrears, on increasing transparency, and on addressing organised crime more strongly. Digitalisation continues to be adopted at a moderate pace in public administration, with spending growing from 0.020 % of GDP in 2019, to 0.022 % in 2025.

Our first alternative scenario **(extended cooperation scenario with enhanced exchange of information and OSS)** considers a situation of substantial progress, where Member States move forward with implementing policy options in a coordinated fashion and with the OSS rapidly coming into full gear. In this scenario, the priority is to render the exchange of information more automatic, and on options that improve Member States administration effectiveness, as well as on digitalisation of the tax system in Member States. Policy options aiming at further strengthening the instruments of enhanced cooperation with the tax authorities (cooperative compliance and advance agreements with businesses that operate internationally, limitation on circulation and offsetting of VAT credits), and policy options that aim at developing services for the generation, transmission, receipt and storage of electronic invoices (such as a European VAT number, mandatory European electronic invoices, accelerated deployment of TNA and artificial intelligence tools, electronic money payment devices for the certification of receipts, automated VAT accounting), would be favoured. However, a lot of latitude is left to Member States on the best way to arrive at improvements in their tax systems. Complexity is therefore reduced to a lower extent, transparency improved at a slower pace and this scenario does not assume a significant convergence between Member States' institutional systems.

To simulate the impact of progress in each area, we assume an increase in the value for each indicator by a percentage of the standard deviation (see assumptions for individual shocks in Table 7). The individual shocks are chosen so that the impact on each variable at the end of the five-year implementation period remains within the margins of possible changes for this length of time and consider the distance to the frontier given by the best performers in each area. Moreover, the comparative size of each individual shock between scenarios is mostly derived by building upon the various scenario of the European Commission impact assessments on exchange of information,[118] on the definitive VAT regime,[119] and on the OSS.[120]

Table 7 – Main assumptions – Size of individual shocks for each scenario

Channel of transmission (proxy variable)	Baseline – limited cooperation	Extended cooperation – exchange of information + OSS	Extended cooperation - VAT definitive regime + OSS	Ambitious scenario – EU treasury and VAT administered at EU level
Complexity (Burden of government regulation)	Adjusted trend	-0.50 standard deviation	- 0.75 standard deviation	- 0.50 * distance to the frontier
Lack of administrative effectiveness (VAT arrears)	Adjusted trend	-0.20 standard deviation	- 0.10 standard deviation	- 0.50 * distance to the frontier
Lack of administrative effectiveness (Difficulty of paying taxes)	Adjusted trend	-0.75 standard deviation	- 0.50 standard deviation	- 0.50 * distance to the frontier
Digitalisation (Tax administration spending on ICT)	Adjusted trend	+1 standard deviation	+0.75 standard deviation	- 0.25 * distance to the frontier
Transparency (Transparency of government policy-making)	Adjusted trend	+0.25 standard deviation	+0.50 standard deviation	- 0.50 * distance to the frontier

118 European Commission, February 2020, op cit.

119 European Commission, October 2017, op cit.

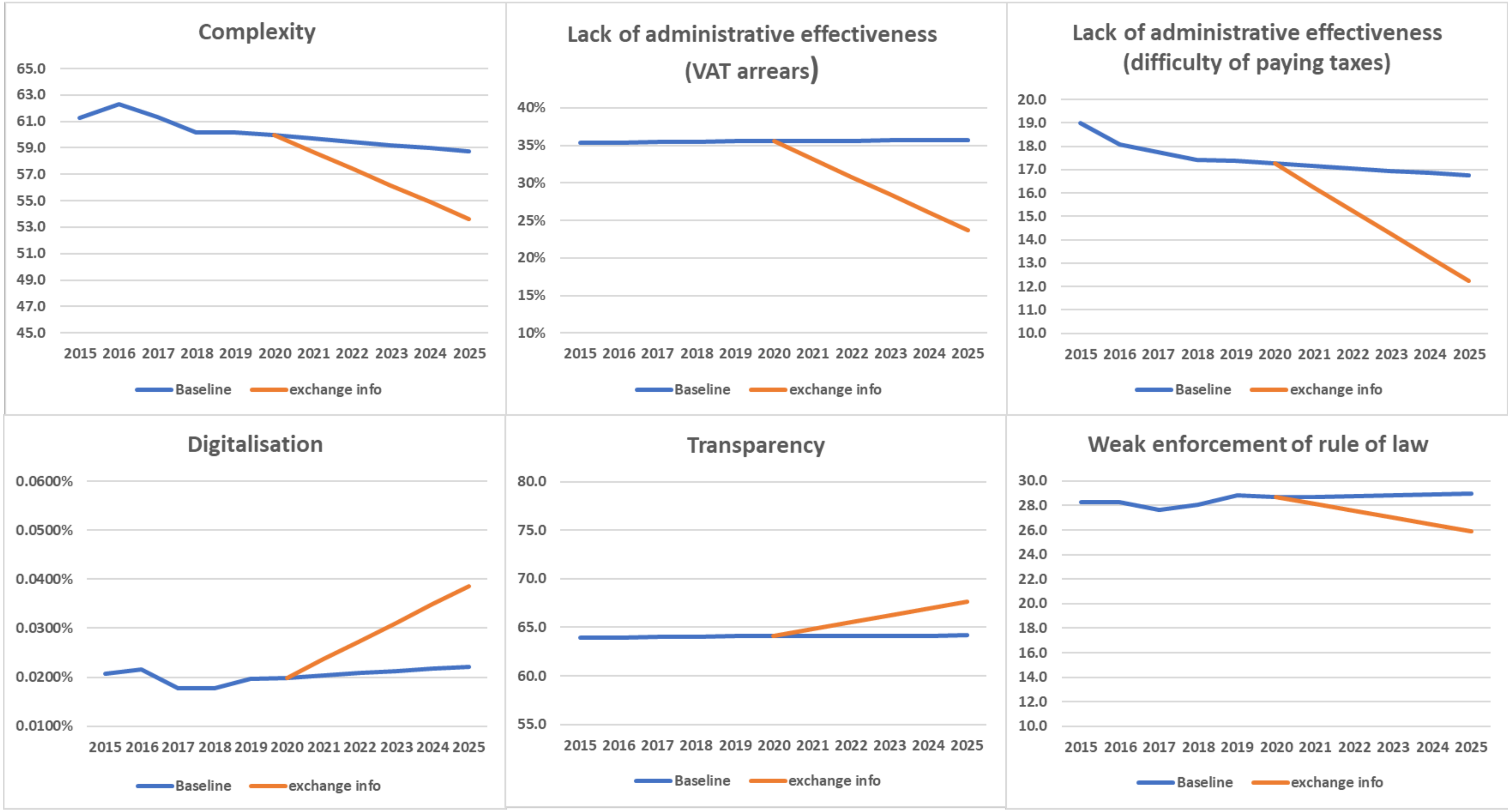
120 European Commission, December 2016, op cit.

Weak enforcement of rule of law (Extent of organised crime)	Adjusted trend	+0.25 standard deviation	+0.50 standard deviation	- 0.50 * distance to the frontier

Source: EPRS.

The results are presented in Figure 6 below. In this scenario, thanks to new measures implemented by Member States to enhance cooperation, to improve exchange of information, and to implement the OSS and digitalise the tax system, we observe improvements in all transmission channels. For the EU on average, the burden of government regulation should decrease from 60 units to around 53.6 units in 2025; VAT arrears could decrease from 35.6 % to 23.7 %; the difficulty of paying taxes index could decrease from 17.3 to 12.3 units. Digitalisation in the administration is adopted at a fast pace, with spending growing from 0.020 % of GDP in 2020 to 0.039 % in 2025, while the transparency index improves (from 64.1 to 67.6 units) and the fight against organised crime is progressing (index of extent of organised crime could decrease from 28.7 to 25.9 units).

Figure 6 – Baseline and extended cooperation scenario (exchange of information + OSS)

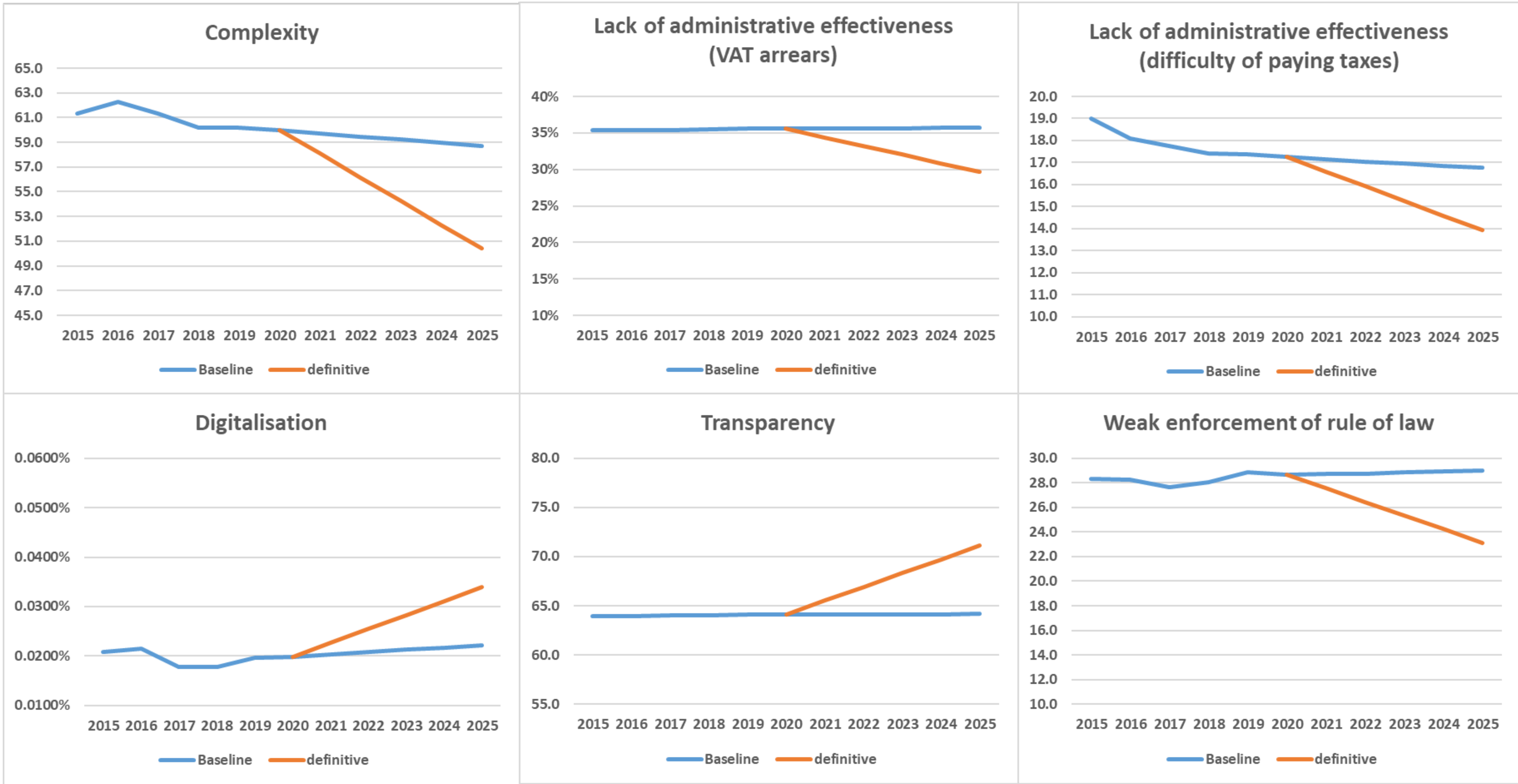


Source: EPRS.

Our second alternative scenario, (**extended cooperation with a VAT definitive regime and OSS)** corresponds to the progressive implementation of the definitive VAT regime and to the OSS coming into full gear. The European Commission produced a detailed impact assessment of these policy options. We therefore rely on these results to arrive at an evaluation of the potential impact of this scenario on the VAT gap and on compliance costs for businesses. In particular, the results indicate that the administration of the system would be less costly and less burdensome than the current transitional system. The impact assessments also emphasise the potential for this scenario to significantly reduce complexity by addressing the inefficiencies of the current VAT system and by providing a level playing field for businesses, whether engaged in domestic or cross-border transactions. The impact assessments point to increased prevention of fraud and abuse, as breaks in the VAT chain within the single market could be avoided and as the robustness and fraud-proofing of the VAT system would be boosted. In our model, this is reflected in the size of the individual shocks for this scenario (see Table 7), where compared to the previous alternative scenario (extended cooperation scenario with enhance exchange of information and OSS), the values for the transmission channels related to reducing complexity, increasing transparency and enforcing the rule of law have been raised incrementally. However, like the previous scenario, Member States retain a lot of latitude in deciding the best way to arrive at improvements in their tax systems. As a result, this scenario does not incorporate a significant convergence between Member States' institutional systems.

The results are presented in Figure 7 below. In this scenario, thanks to the implementation of the definitive VAT regime, of the OSS and of other new measures, we again observe improvements in all variables. For the EU on average, the burden of government regulation could decrease from 60 units to around 50.4 units in 2025, VAT arrears could decrease from 35.6 % to 29.7 %, and the difficulty experienced in paying taxes index could decrease from 17.3 to 13.9 units. Digitalisation in the administration is adopted at a fast pace, with spending on ICT growing from 0.020 % of GDP in 2020, to 0.035 % in 2025, while the transparency index improves significantly (from 64.1 to 71.1 units), and the fight against organised crime also makes substantial progress (the index of extent of organised crime could decrease from 28.7 to 23.1 units).

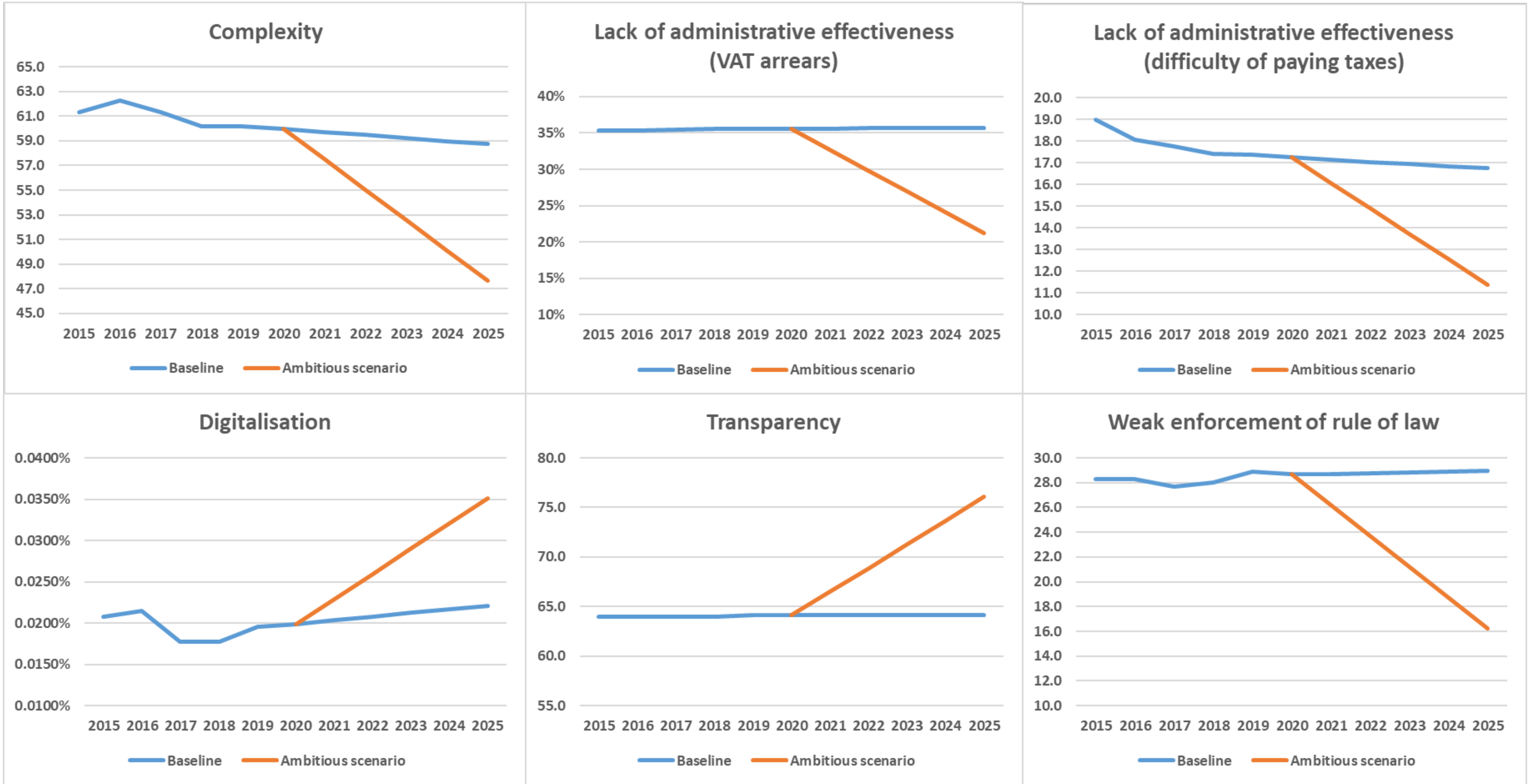
Figure 7 – Baseline and extended cooperation scenario (definitive VAT regime + OSS)



Source: EPRS.

Finally, our third alternative scenario (**ambitious scenario with a EU treasury, QVM and administered VAT at EU level**), builds upon the fact that, for countries participating in a single monetary union and in a single market, the evidence at Member State and international level points to the simplicity, higher level of enforcement, transparency and reduced administrative burden provided by a united approach. This might even have greater relevance, as in the European Commission's public consultation on the definitive VAT regime proposal, a large proportion of businesses (43 % of SMEs and 39 % of large businesses), alleged that they were not persuaded that a definitive VAT regime would by itself be sufficient to improve the fight against tax fraud, with 16 % considering that it could increase compliance costs. Furthermore, over 74 % of the respondents also agreed that the current transitional system is not sufficiently resistant to VAT fraud within the EU. Furthermore, all Member States, including the most institutionally decentralised, have a unique treasury which deals with the collection of VAT. The lack of ambition and of EU leadership in this area is probably the main source of inefficiency at the current stage and a more visionary move could constitute a decisive improvement in terms of tackling the VAT gap and in terms of reducing compliance costs for businesses to a minimum. A recent proposal to move towards QVM in the area of taxation could represent an improvement. A more centralised approach, while extremely unlikely at this stage, is therefore worth exploring. In addition to the benefits on all transmission channels leading to a reduced VAT gap and reduced compliance costs, the resulting improved collection of tax revenues would increase responsibility, sustainability and resilience in Member States and confidence between them. Contrary to the previous scenarios, such a visionary approach would also improve convergence between Member States, ensure more fairness and legal certainty, while also reducing risks associated with cross-border trade.

Figure 8 – Baseline and ambitious scenario (EU treasury, QVM and VAT administered at EU level)

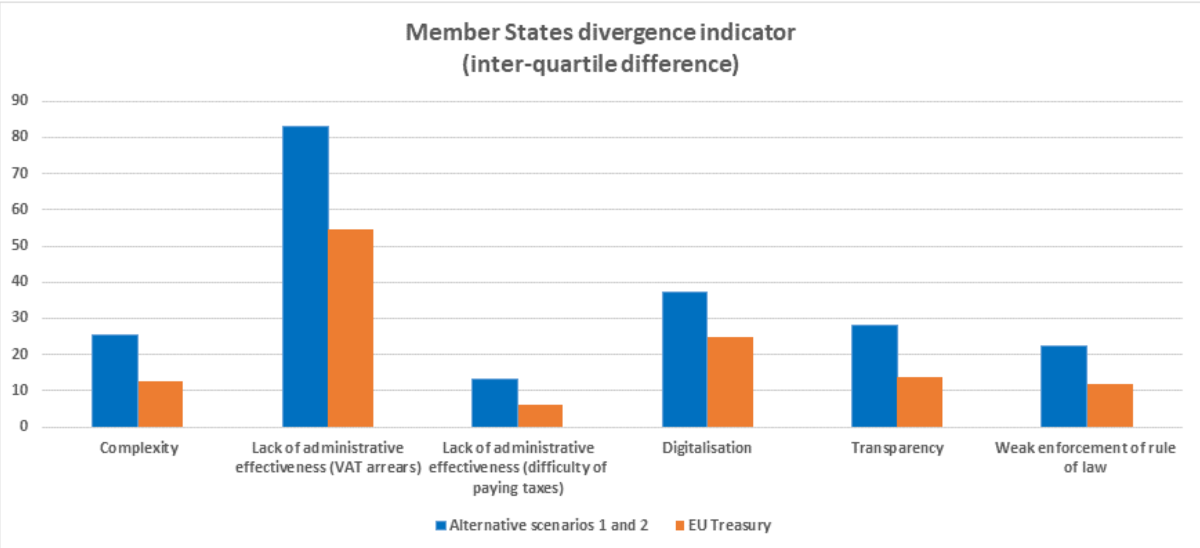


Source: EPRS.

To simulate the potential impact of this scenario, we use a distance to frontier methodology, which for each Member State computes the impact of a reduction (see Table 7) of the distance between this Member State and the best performer in each area. We assume a smaller shock for digitalisation, as it could be expected that this scenario will not significantly improve digitalisation in the EU compared to the previous ones. In all the other transmission channels, however, this scenario provides results that could be interpreted as the limit of what could be achieved in the five-year period. Once the values are computed for all Member States, the EU average based upon these new values is then obtained.

The results are presented in Figure 8. In this scenario, we obviously again observe improvements in all variables. For the EU on average, the burden of government regulation could decrease from 60 units to 47.6 units in 2025, VAT arrears could decrease from 35.6 % to 21.2 %, and the difficulty of paying taxes index could decrease from 17.3 to 11.4 units. Digitalisation in the administration is adopted at a fast pace, with spending on ICT growing from 0.020 % of GDP in 2019, to 0.035 % in 2025, while the transparency index improves significantly (from 64.1 to 76.1 units), and the fight against organised crime could make impressive progress (index of extent of organised crime could decrease from 28.7 to 16.2 units). Furthermore, an important result here is that a corresponding level of convergence is achieved, or put differently, that divergences between Member States are reduced (see Figure 9). For all transmission channels, a centralised approach would ensure that less performant Member States benefit from a more effective administration and from more transparent and more fraud-resistant tax frameworks. This is particularly relevant for the variable regarding VAT arrears, where the amount of arrears currently represents more than 100 % of VAT collected for some Member States. With a centralised approach, the maximum would be reduced to 60 %, still a sizeable amount but far less than with a purely decentralised approach.

Figure 9 – Convergence under a hypothetical EU treasury scenario



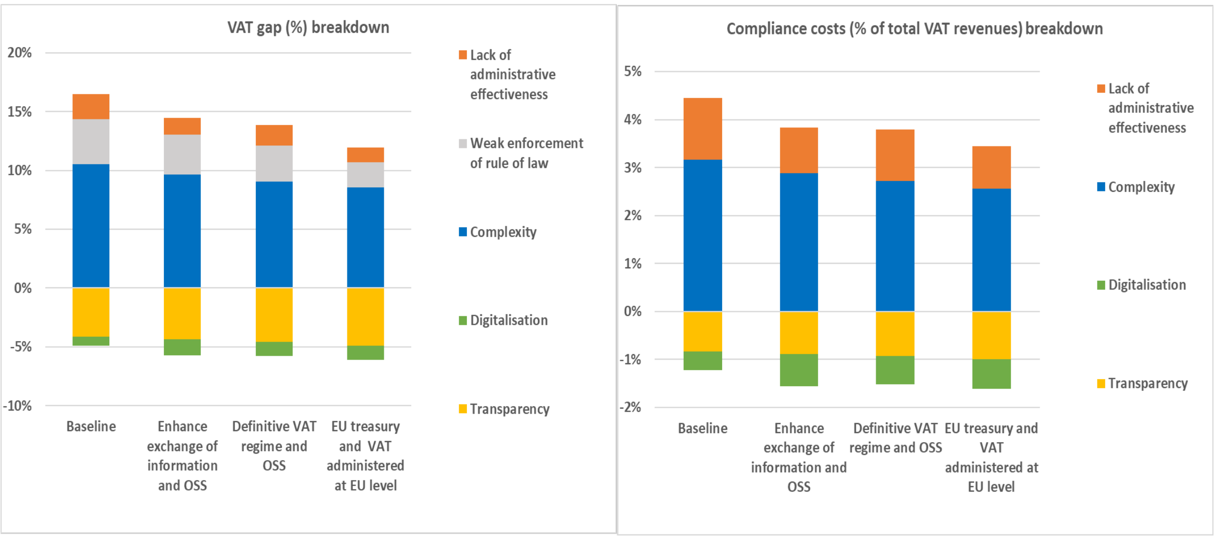
Source: EPRS.

4.3. European added value assessment

Using the results described in the previous section on the changes in each transmission channel, we are then able to compute the economic impact on the VAT gap and on compliance costs for businesses. This is achieved on the basis of equation (3) on the VAT gap and equation (4) on compliance costs (see above), using the coefficients estimated in Table 5 (specification 4) and

Table 6 (specification 5).[121] The results of the breakdown of the VAT gap and of the compliance costs are given in Figure 10.

Figure 10 – Breakdown of the VAT gap and of compliance costs (end of the implementation period – 2025)



Source: EPRS.

We observe that **complexity remains the main factor behind both the VAT gap and the high level of compliance costs for businesses** in all scenarios. As acknowledged by the European Commission, this is of great concern for SMEs, which do not always have easy and affordable access to support, in particular for cross-border trade. The OSS might help to some extent, but will probably be insufficiently instrumental to incentivise simplification in the medium term. The lack of administrative effectiveness is also of particular relevance for businesses, as it has a relatively large impact on compliance costs. The same is true for increasing transparency, with a noticeable reduction in compliance costs in the scenarios where more transparency is ensured. Our results also emphasise that weak enforcement significantly contributes to the VAT gap. Finally, as expected, the move towards digitalisation of tax administration appears an important option to reduce both the VAT gap and compliance costs in all scenarios, but probably to a lower extent than is sometimes assumed.

Based upon these final results, we are able to compute the change in absolute terms (in billion euro per year) in the VAT gap and in the total amount of compliance costs for all scenarios in 2025, compared to the value for the baseline scenario in 2025. Regarding first the **baseline scenario itself** from 2020 to 2025, a very small decrease in the VAT gap could be obtained, of more than €3 billion in absolute terms, from around €120 billion in 2019, to €116 billion in 2025. Under this scenario, the compliance costs for business could further increase by almost €1 billion, from €31 billion in 2019, to €32 billion in 2025. This underlines that without EU action in this area (extended cooperation or more ambitious approach), the relative decrease in compliance costs observed recently might not continue. Regarding the impact of the other scenarios compared to these results for the baseline in 2025 (see Table 8), we find an **EAV of around €39 billion for the scenario of extended cooperation – exchange of information + OSS**. This breaks down into a reduction of around €29 billion of the VAT gap and into a reduction of almost €10 billion in compliance costs for businesses. We find a slightly higher **EAV of around €45 billion for the scenario of extended cooperation – definitive VAT regime + OSS**. This breaks down into a higher reduction, of around

[121] In line with mainstream practices, we select the specification with the highest number of significant variables and with the highest R square.

€35 billion, of the VAT gap, and into a reduction of almost €10 billion in the compliance costs for businesses. Finally, we find a higher **EAV of €71 billion for the most ambitious scenario of an EU treasury, QVM and VAT administered at EU level**. This breaks down into a higher reduction of around €57 billion of the VAT gap, and into a higher reduction of €14 billion in the compliance costs for businesses.

Table 8 – EAVA – Summary table (billion € per year)

	Baseline – limited cooperation	Extended cooperation – exchange of information + OSS	Extended cooperation – VAT definitive regime + OSS	Ambitious scenario – EU treasury, QVM and VAT administered at EU level
VAT gap (billion € in 2025)	116	87	81	59
Reduction in VAT gap compared to the baseline (A)	-	29	35	57
Compliance costs (billion € in 2025)	32	23	23	18
Reduction in compliance costs compared to the baseline (B)	-	10	10	14
EAV (A+B)	**-**	**39**	**45**	**71**
Likelihood	**Unlikely**	**likely**	**likely**	**Unlikely**
Driver or possible game-changer	Increasing protection-ist and narrow-minded outlook	High VAT gap in times of challenge for public finances	High VAT gap in times of challenge for public finances	Realisation of the relative complexity, cost and lack of effectiveness of other options/ Treaty change/ renewed EU ambition

Source: EPRS.

As already explained, the most ambitious scenario of an EU treasury and VAT administered at EU level nevertheless remains rather unlikely to gather sufficient support at the current juncture. It would also require substantial Treaty change to be pursued. It is however a genuine pursuit of the continuation of past ambitious and forward-looking achievements of previous generations of EU leaders, who have contributed to the construction of the single market and to launching the European and Monetary Union. Left with functionalist perspectives, we conclude that the two other alternatives are most likely to be implemented in the coming years. Our evaluation broadly confirms the European Commission's assumptions on the potential impact of a definitive VAT regime and of the OSS on the VAT gap and on reducing compliance costs. As the launch of the definitive VAT regime continues to be delayed, our evaluation also emphasises the potential for a scenario of extended cooperation through reinforced exchange of information and an OSS used to its full extent. This second scenario offers a relatively comparable reduction of the VAT gap and of compliance costs, in particular if, as assumed in this study, it is accompanied by a strong, accelerated and effective move towards the digitalisation of tax administration in all Member States. Combined with a renewed focus on increasing transparency and simplification of the tax system, this scenario seems an alternative that cannot be excluded. However, the extent to which all Member States are likely to coordinate a concerted move towards this scenario, as assumed by some, still needs to be demonstrated at this stage.

Finally, beyond the economic results,[122] the broader qualitative impact that progress in this area would bring should also be taken into account. First, from a general **business perspective**, VAT fraud generates direct costs, but also a whole range of indirect costs that are not necessarily reflected in econometric evaluations. Some businesses might fall victim to VAT fraud on a large scale, sometimes under the umbrella of organised crime organisations. Businesses also sometimes unknowingly become involved in a fraudulent supply chain and may need to bear the unpaid VAT and any relevant penalties. More broadly, the complexity of the system and the persistence of some requirements, such as for instance, the requirement to use national banks for VAT purposes, continue to create a costly and time-consuming administrative burden for businesses. As strongly emphasised in the European Commission impact assessments, this is more likely to seriously affect **SMEs** and to limit the export potential of the most successful SMEs, thus slowing their growth and market development potential. This creates conditions for sometimes unbalanced competition within the single market and directly impacts trade and potential growth. Furthermore, undetected fraud due to a lack of digitalisation, a lack of transparency, to less effective administration, and to weak judicial systems, also create diverging competition conditions between compliant businesses and those who intentionally 'play the system'. Finally, fraud generates extra compliance costs for businesses, in particular for those with less developed administrative capacities, such as SMEs. This situation could favour the survival of uncompetitive businesses and therefore negatively affects aggregate productivity.

From a **consumer and individual taxpayer perspective**, as highlighted in the first part of this study, despite encouraging recent efforts, the VAT gap remains substantial and the cross-border VAT gap still needs to be reduced. According to our estimations, the EU VAT gap still represents around €120 billion in 2020, while the EU cross-border VAT gap is around €50 billion. This represents a direct cost for the public finances in each Member State, through lost tax revenue. This also constitutes a cost for consumers and taxpayers, as revenue needs to be generated through increases in other taxes, or as the services that could have been provided had the VAT gap been addressed, are not delivered.

Finally, from a **Member States' administration perspective**, the efforts to reduce the VAT gap and fight VAT tax fraud could generate additional administrative costs through the need for additional audits, and administrative and/or judicial proceedings. As shown in our analysis, new obligations imposed to fight tax fraud and reduce the VAT gap do not necessarily increase compliance costs if they are accompanied by progress in digitalisation and in reducing complexity, while also making sure that the tax administration is effective and that enforcement of the rule of law is robust. The costs might nevertheless remain considerable if a fragmented approach is followed at Member State level, while more ambition and a more united approach would substantially reduce them. An EU treasury would be particularly relevant in this respect. A more united approach could also help a more effective combat against organised crime, for instance through the involvement of the new European Public Prosecutor's Office (EPPO).

[122] The calculation of any macroeconomic impact of the additional revenues for the public finances generated by each option is highly dependent on the way that these resources will be recycled. To be of any relevance, such an exercise would require a comprehensive assessment with advanced models, which would go beyond the purpose of this study. As a rule of thumb, and assuming a multiplier of 0.55, a general assumption of many public finance models, a macroeconomic GDP impact of EU action in this area could be derived of between 0.1 % and 0.3 % of GDP.

5. Conclusion

Given the importance of VAT in the EU tax framework, and after the revelation of a series of high-profile recent incidences of fraud, a reform of the current transitional VAT system appears highly relevant. Today's challenging economic situation, where a large amount of debt has been accumulated at Member State level to address the negative impact of the Covid-19 pandemic, will also renew interest in addressing potential VAT revenue losses. This is even more true as the EU will need to increase its own resources to reimburse the disbursement made under the next generation EU (NGEU) recovery plan. The economic consequences of the relative lack of effective administration of the current EU VAT regime are well documented, in particular regarding its complexity, fragmentation and high level of compliance costs. Further action would thus be welcome, as we estimate the budgetary losses due to cross-border VAT fraud at around €50 billion per year on average.[123] More broadly, the VAT gap, including cross-border VAT evasion and fraud, could be estimated at around €120 billion in 2020,[124] almost equivalent to the entire annual EU budget.

The European Commission recognises the need to proceed with a general modernisation of the VAT system. The objective of the reform envisaged in the 2016 action plan and in the 2018 proposal is to create a **definitive VAT system**, based on the principle of taxation in the country of destination of the goods – the application of which is ordinarily delegated not to the recipient but to the supplier of the goods themselves. However, Member States agreed that the definitive VAT reform should proceed only if it can be demonstrated that its impact on reducing the VAT gap is substantial and if the burden on businesses is also reduced. In this study, we analysed these issues with a view to identifying the possible challenges in current EU legislation and to evaluating the EAV of potential policy options to address these challenges. We also conducted a thorough comparative economic analysis of the EAV of a series of scenarios based upon the policy options identified. This allowed us to calculate the change in the VAT gap and in the amount of compliance costs in absolute terms (in billion euro) for all scenarios in 2025, compared to the value for the baseline scenario in 2025.

Regarding the **baseline scenario itself** from 2020 to 2025, we see a very small decrease in the annual VAT gap, of more than €3 billion in absolute terms, from around €120 billion in 2019, to €116 billion in 2025. Under this scenario, the compliance costs for businesses further increase by almost €1 billion, from €31 billion in 2019, to €32 billion in 2025. This underlines that without EU action in this area (extended cooperation or a more ambitious approach), the relative decrease in compliance costs observed recently might not continue. Regarding the impact of the other scenarios, compared to these results for the baseline in 2025, we find an **EAV of around €39 billion for the scenario of extended cooperation – exchange of information + OSS**. This breaks down into a reduction of around €29 billion in the VAT gap and into a reduction of almost €10 billion in the compliance costs for businesses. We find a slightly higher **EAV of around €45 billion for the scenario of extended cooperation – VAT definitive regime + OSS**. This breaks down into a higher reduction of around €35 billion in the VAT gap and into a reduction of almost €10 billion in the compliance costs for businesses. Finally, we find a higher **EAV of €71 billion for the most ambitious scenario of an EU treasury, QVM and VAT administered at EU level**. This breaks down into a higher reduction of around €57 billion in the VAT gap and into a higher reduction of €14 billion in the compliance costs for businesses.

The most ambitious scenario of setting up an EU treasury and administering VAT at EU level is however unlikely to gather sufficient support at the current juncture, as it would require pursuit of substantial Treaty change. As the launch of the definitive VAT regime is delayed, our evaluation also emphasises the potential for a scenario of extended cooperation through reinforced exchange of

[123] Lamensch and Ceci, 2018, op cit.

[124] European Commission 2020 op cit.

information and an OSS used to its full extent. However, the extent to which all Member States are likely to coordinate a concerted move towards greater cooperation on tax matters, as is sometimes assumed, remains to be demonstrated at this stage. Finally, our analysis shows that new obligations imposed with a view to fighting tax fraud and to reducing the VAT gap do not necessarily increase the compliance costs for businesses if they are accompanied by progress in digitalisation and in reductions in complexity, while also ensuring that tax administration is effective and transparent and that enforcement of the rule of law is robust.

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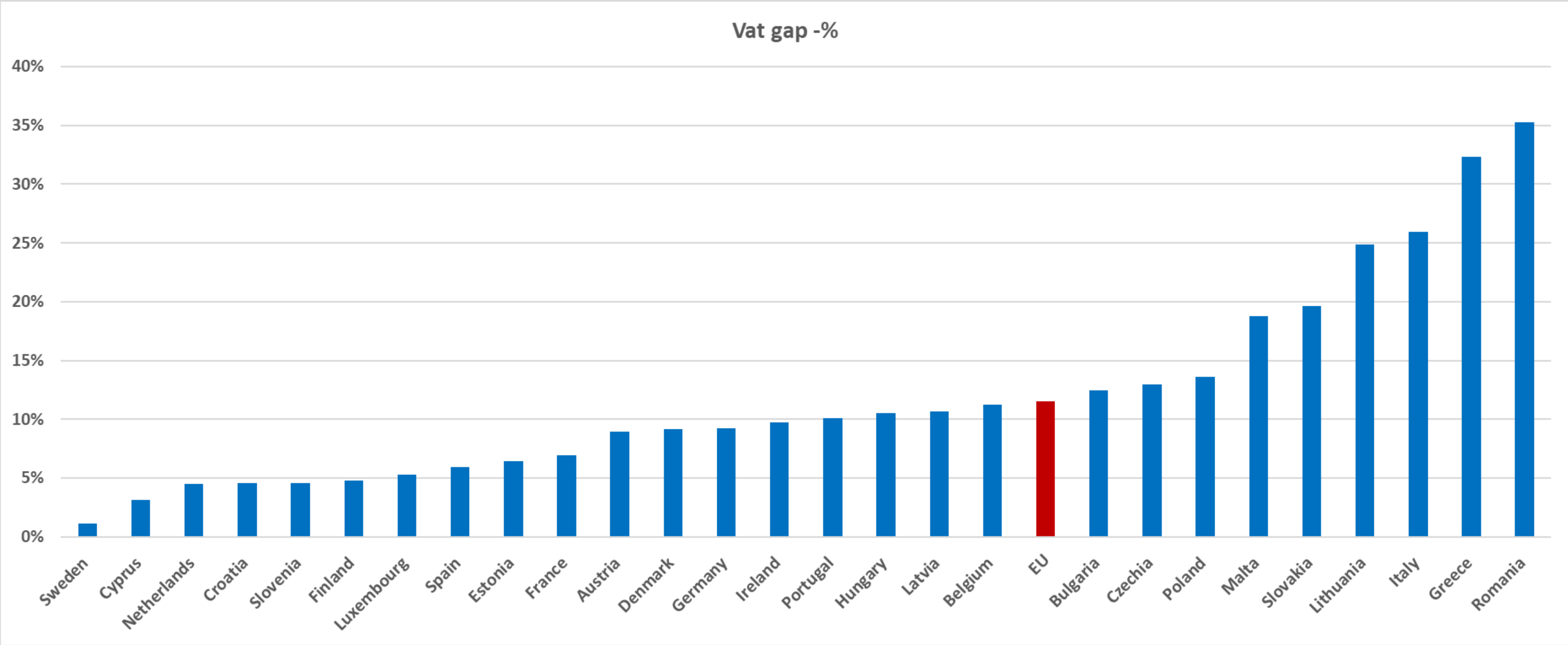
ANNEX 1

VAT gap (%)



Data source: European Commission, 2020.

VAT revenues effectively collected (€ billion)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	17	17	17	17	18	18	19	19	20	21	21	22	23	24	24	25	26	26	27	28	29
Belgium	18	18	18	19	19	20	21	22	23	24	24	25	26	26	27	27	28	29	29	30	31
Bulgaria	1	1	1	1	1	2	2	2	3	3	3	3	3	3	4	4	4	4	4	5	5
Croatia	3	3	3	3	3	4	4	4	5	5	5	5	5	5	5	5	6	6	6	7	7
Cyprus	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Czechia	4	4	4	5	5	6	6	7	8	9	9	10	11	11	11	12	12	13	14	15	15
Denmark	16	17	17	17	18	18	20	21	22	22	23	23	23	24	24	25	25	26	27	28	29
Estonia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Finland	11	11	11	12	12	12	13	14	14	15	15	16	16	17	18	18	19	19	20	20	21
France	107	108	109	110	112	116	121	126	131	133	134	136	137	139	142	146	148	152	157	162	164
Germany	140	140	139	138	138	138	140	146	154	162	170	179	184	188	193	199	205	211	219	227	230
Greece	9	10	10	11	11	12	13	14	15	15	16	16	15	14	14	13	13	13	14	15	15
Hungary	4	5	5	5	6	6	7	7	8	8	8	8	8	9	9	9	10	10	11	12	13
Ireland	8	8	8	9	9	10	11	12	13	13	12	12	11	10	10	11	11	12	13	13	14
Italy	77	78	78	79	79	81	84	97	90	91	93	94	94	94	96	97	98	100	103	106	106
Latvia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Lithuania	1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	3	4
Luxembourg	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4
Malta	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
Netherlands	28	30	31	32	33	35	36	38	40	41	42	42	42	42	42	43	44	46	48	51	53
Poland	13	14	14	14	14	15	17	19	22	24	25	27	27	27	28	29	29	31	33	36	38
Portugal	10	10	10	10	11	11	12	13	13	13	14	14	14	13	14	14	15	15	16	17	17
Romania	3	3	3	3	3	4	5	6	8	9	9	10	10	10	11	12	12	12	12	12	13
Slovakia	2	2	2	2	2	2	3	3	3	4	4	4	4	4	5	5	5	5	6	6	6
Slovenia	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4
Spain	38	39	40	41	43	47	52	56	57	54	54	52	51	52	58	61	64	68	72	75	76
Sweden	23	23	23	23	24	25	26	27	28	29	30	32	33	35	37	39	40	41	42	43	44

Data source: Eurostat, 2020.

Theoretical VAT revenues (€ billion)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	18	19	19	19	19	20	21	22	23	23	24	25	25	26	27	28	28	29	30	31	32
Belgium	19	20	20	21	21	22	23	24	25	26	27	28	30	30	31	31	32	32	33	34	34
Bulgaria	2	2	2	2	2	3	3	3	4	4	4	4	5	5	5	5	5	5	5	5	6
Croatia	3	3	3	4	4	4	4	5	5	5	6	6	6	6	6	6	6	6	6	7	7
Cyprus	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Czechia	5	5	6	6	6	7	7	8	9	10	11	12	13	14	14	14	15	15	16	17	18
Denmark	19	19	19	19	20	21	22	23	24	25	26	26	26	27	27	28	28	29	30	30	32
Estonia	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Finland	12	12	12	12	13	13	14	15	16	16	17	17	18	18	19	20	20	21	21	21	22
France	112	114	116	118	120	125	130	136	141	146	148	150	153	155	158	161	165	167	171	174	176
Germany	156	158	157	157	157	157	158	166	175	182	190	200	205	209	216	223	229	235	242	249	253
Greece	11	12	13	14	14	15	17	19	20	21	22	22	22	21	20	19	19	19	20	21	21
Hungary	5	6	6	6	7	8	8	9	10	10	10	10	11	11	11	12	12	12	13	14	14
Ireland	9	9	9	10	10	11	12	14	15	15	14	14	13	12	12	12	13	13	14	15	15
Italy	105	107	108	110	112	116	120	124	127	130	132	135	136	136	137	138	138	139	141	143	143
Latvia	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3
Lithuania	1	1	1	1	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4	5
Luxembourg	1	1	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4
Malta	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Netherlands	33	34	35	36	36	38	39	41	42	44	45	46	46	46	46	47	48	49	51	54	56
Poland	17	19	18	18	18	20	21	23	26	28	31	33	35	36	37	38	39	40	41	43	44
Portugal	10	10	10	11	11	12	12	13	14	14	15	15	16	16	16	17	17	18	18	19	19
Romania	4	5	4	5	5	6	7	10	12	13	15	16	17	17	18	19	19	19	19	19	19
Slovakia	2	2	2	2	2	3	3	4	4	5	6	6	6	7	7	7	7	7	7	8	8
Slovenia	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4
Spain	40	42	43	44	46	50	53	58	62	62	63	63	62	63	66	68	71	74	77	80	80
Sweden	25	24	25	25	25	26	28	29	30	31	32	33	35	37	39	40	41	42	43	44	44

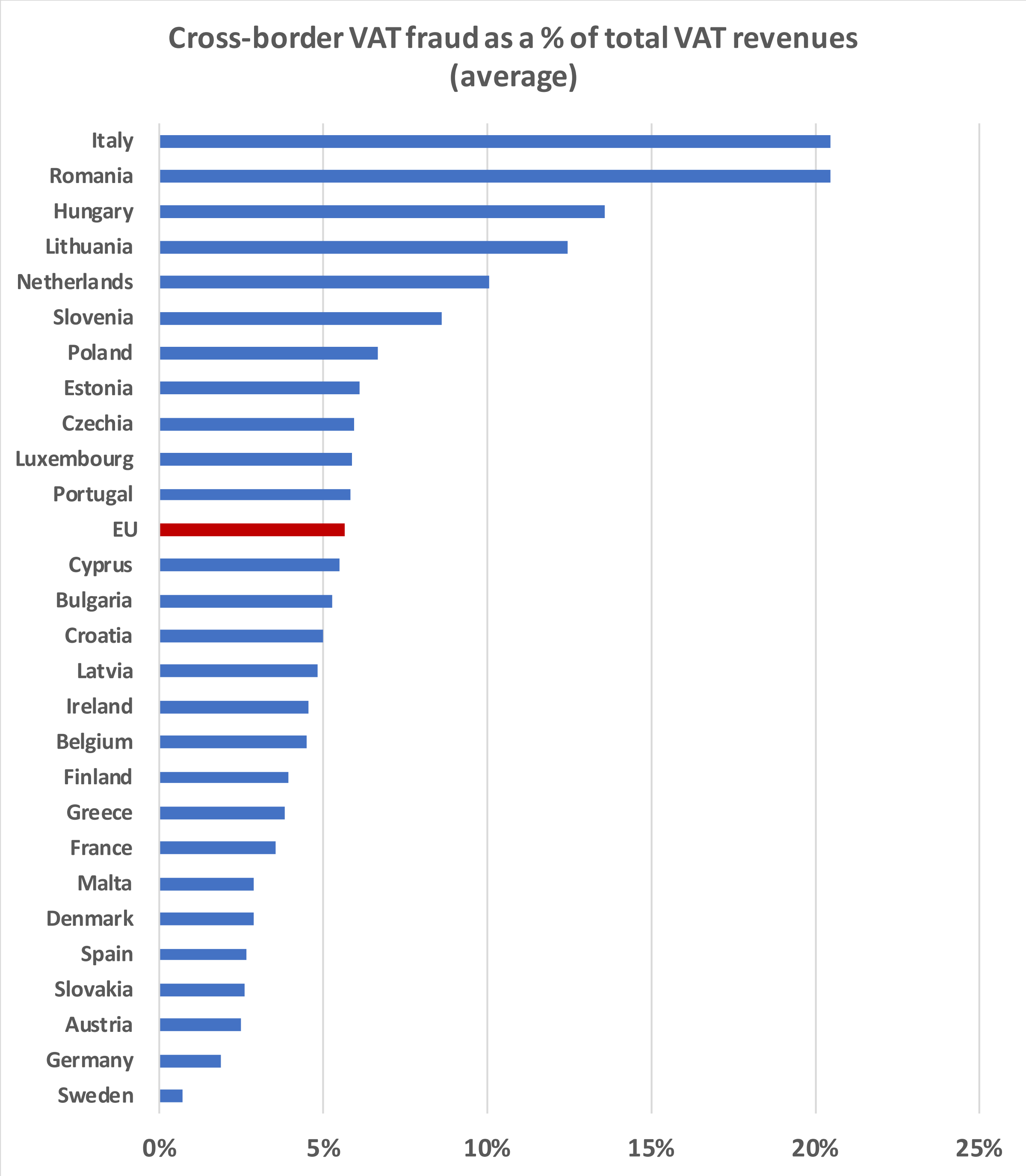
Data source: European Commission, 2020.

Compliance ratio (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	92%	91%	92%	92%	91%	91%	90%	89%	89%	89%	89%	89%	90%	90%	90%	90%	91%	91%	91%	92%	91%
Belgium	94%	91%	91%	90%	90%	90%	90%	90%	90%	89%	89%	88%	87%	87%	88%	88%	88%	89%	89%	89%	89%
Bulgaria	65%	63%	60%	61%	64%	68%	72%	76%	79%	78%	78%	77%	77%	77%	78%	79%	82%	84%	85%	87%	88%
Croatia	90%	92%	93%	94%	95%	96%	96%	96%	95%	94%	94%	94%	94%	94%	94%	94%	94%	95%	95%	95%	95%
Cyprus	95%	95%	95%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	97%	97%	97%
Czechia	76%	77%	77%	76%	80%	84%	87%	88%	89%	86%	83%	82%	81%	80%	81%	82%	82%	84%	85%	87%	87%
Denmark	87%	88%	88%	88%	88%	89%	89%	90%	89%	89%	89%	89%	89%	89%	89%	89%	89%	90%	91%	92%	91%
Estonia	91%	89%	88%	88%	86%	86%	87%	89%	89%	90%	90%	89%	88%	88%	88%	89%	91%	92%	94%	95%	94%
Finland	93%	92%	93%	93%	92%	92%	93%	92%	91%	92%	92%	92%	93%	94%	94%	94%	94%	95%	95%	96%	95%
France	96%	95%	94%	93%	93%	93%	92%	93%	92%	91%	91%	91%	90%	90%	90%	90%	90%	91%	92%	93%	93%
Germany	90%	89%	88%	88%	88%	88%	88%	88%	88%	89%	90%	90%	90%	90%	89%	89%	89%	90%	91%	91%	91%
Greece	80%	81%	81%	80%	79%	78%	76%	74%	74%	73%	73%	71%	71%	69%	70%	69%	70%	69%	70%	69%	68%
Hungary	83%	80%	85%	83%	82%	81%	81%	79%	79%	79%	79%	79%	78%	79%	79%	80%	82%	84%	86%	89%	89%
Ireland	86%	90%	91%	90%	91%	91%	90%	89%	88%	86%	85%	84%	84%	84%	87%	88%	89%	90%	90%	90%	90%
Italy	74%	72%	72%	71%	71%	70%	70%	70%	70%	70%	70%	70%	69%	69%	70%	70%	71%	72%	73%	74%	74%
Latvia	88%	86%	85%	84%	83%	84%	87%	89%	87%	82%	79%	74%	71%	71%	74%	76%	80%	82%	85%	88%	89%
Lithuania	76%	74%	74%	73%	71%	70%	70%	72%	74%	74%	74%	73%	72%	70%	71%	72%	73%	73%	74%	76%	75%
Luxembourg	92%	92%	92%	93%	94%	95%	96%	96%	96%	97%	97%	97%	97%	98%	97%	97%	96%	96%	96%	95%	95%
Malta	69%	69%	76%	74%	72%	74%	75%	72%	73%	75%	74%	73%	72%	71%	70%	71%	73%	75%	78%	81%	81%
Netherlands	87%	88%	90%	90%	90%	91%	93%	93%	93%	92%	93%	92%	91%	90%	91%	90%	91%	92%	93%	94%	95%
Poland	75%	72%	79%	78%	77%	79%	82%	82%	84%	83%	83%	81%	78%	76%	76%	75%	75%	78%	82%	85%	86%
Portugal	100%	100%	98%	98%	98%	98%	98%	98%	98%	95%	93%	90%	88%	86%	86%	86%	86%	87%	88%	90%	90%
Romania	62%	58%	68%	67%	65%	67%	68%	66%	66%	65%	63%	62%	61%	61%	61%	62%	62%	63%	64%	65%	65%
Slovakia	78%	78%	83%	83%	82%	84%	83%	79%	78%	75%	72%	71%	69%	68%	68%	70%	71%	74%	77%	79%	80%
Slovenia	97%	96%	95%	95%	95%	94%	95%	94%	94%	93%	92%	92%	91%	92%	92%	92%	92%	93%	94%	95%	95%
Spain	95%	94%	93%	93%	94%	95%	97%	96%	93%	88%	86%	83%	82%	84%	88%	89%	91%	92%	93%	95%	94%
Sweden	93%	93%	93%	93%	93%	94%	94%	94%	94%	95%	95%	96%	96%	96%	96%	96%	96%	97%	98%	98%	99%

Data source: European Commission, 2020.

Cross-border VAT fraud (%)



Source: EPRS

Cross-border VAT fraud (€ billion)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.3
Belgium	0.6	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.6
Bulgaria	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Croatia	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Cyprus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Czechia	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Denmark	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.2	1.3
Estonia	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Finland	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6
France	2.7	3.3	3.6	3.8	3.9	4.3	4.5	4.7	5.0	5.6	5.8	5.9	6.3	6.5	6.3	6.6	6.8	6.4	6.3	5.8	5.8
Germany	7.6	8.3	8.3	8.4	8.4	8.6	8.5	8.9	9.4	9.4	9.4	9.8	10.0	10.3	11.0	11.3	11.3	11.2	11.0	10.7	11.4
Greece	1.1	1.0	1.1	1.2	1.3	1.6	1.8	2.1	2.3	2.5	2.6	2.8	2.8	2.8	2.6	2.6	2.5	2.6	2.6	2.8	3.0
Hungary	0.4	0.5	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7
Ireland	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Italy	9.9	10.4	10.5	11.1	11.5	12.2	12.5	12.9	13.1	13.7	13.6	14.1	14.5	14.6	14.3	14.4	14.1	13.8	13.4	13.1	13.2
Latvia	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
Lithuania	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Luxembourg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Malta	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Netherlands	1.5	1.6	1.4	1.5	1.4	1.4	1.3	1.3	1.3	1.5	1.5	1.6	1.8	1.8	1.7	1.9	1.8	1.7	1.6	1.6	1.3
Poland	1.6	1.9	1.5	1.5	1.6	1.6	1.5	1.6	1.7	1.9	2.1	2.4	2.9	3.2	3.4	3.6	3.6	3.3	3.0	2.7	2.6
Portugal	-0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.4	0.6	0.8	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
Romania	0.6	0.7	0.5	0.6	0.7	0.8	0.9	1.2	1.5	1.8	2.0	2.2	2.4	2.5	2.6	2.6	2.6	2.6	2.5	2.5	2.6
Slovakia	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5
Slovenia	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Spain	1.4	1.6	1.8	1.8	1.7	1.5	1.1	1.4	2.6	3.8	4.3	5.0	5.1	4.7	3.9	3.8	3.5	3.4	3.1	2.8	3.0
Sweden	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.8	0.7	0.8	0.8	0.8	0.9	0.8	0.6	0.5	0.4	0.3

Source: EPRS

Estimation of the statistical relationship between compliance costs and the World Bank paying taxes index

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.60380906
R Square	0.36458538
Adjusted R Square	0.33916879
Standard Error	0.01861815
Observations	27

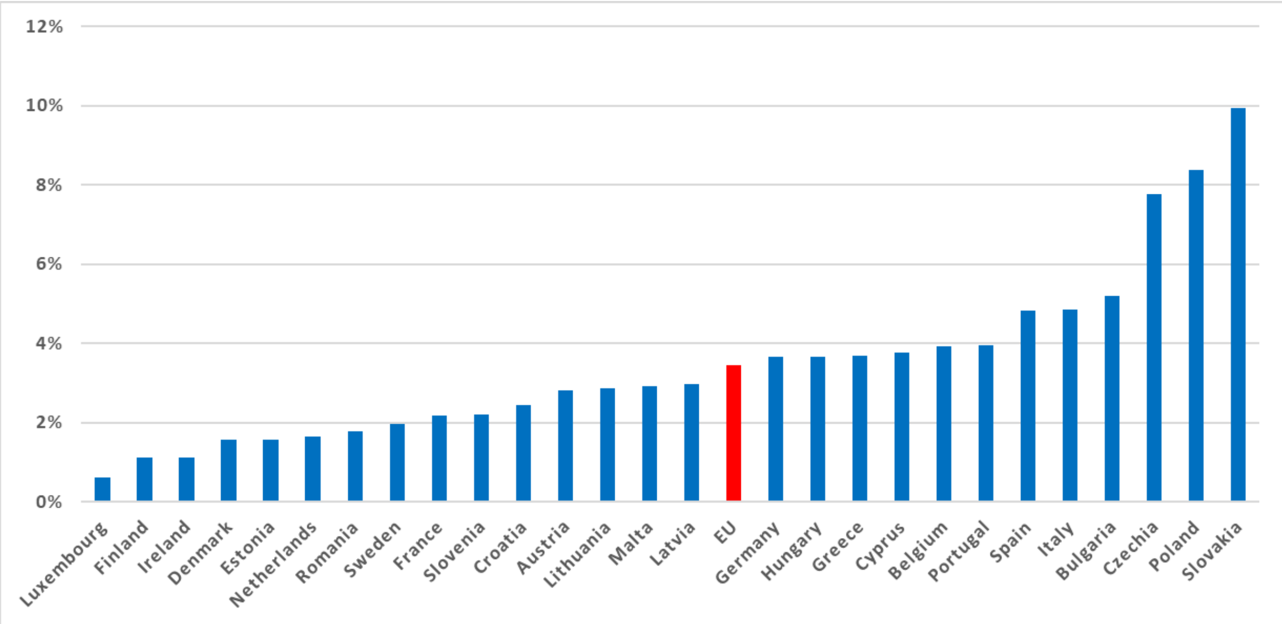
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.00497228	0.00497228	14.344389	0.00085353
Residual	25	0.00866589	0.00034664		
Total	26	0.01363817			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.17324845	0.0362774	4.77565734	6.66E-05	0.09853374	0.24796317	0.09853374	0.24796317
Paying taxes index	-0.00172	0.00045414	-3.7873987	0.00085353	-0.0026554	-0.0007847	-0.0026554	-0.0007847

Source: EPRS

Compliance costs as a percentage of VAT revenues (%)



Source: EPRS

Compliance costs as a percentage of VAT revenues (%)

	2014	2015	2016	2017	2018	2019	2020
Austria	2.83%	2.82%	2.83%	2.81%	2.81%	2.81%	2.81%
Belgium	4.13%	4.15%	4.04%	4.08%	3.92%	3.92%	3.91%
Bulgaria	5.22%	5.22%	5.23%	5.25%	5.18%	5.19%	5.19%
Croatia	2.44%	2.50%	2.50%	2.44%	2.44%	2.45%	2.44%
Cyprus	4.05%	3.86%	5.18%	4.99%	3.77%	3.85%	3.88%
Czechia	7.68%	7.60%	7.83%	7.74%	7.77%	7.77%	7.78%
Denmark	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%	1.56%
Estonia	1.84%	1.65%	1.62%	1.62%	1.57%	1.56%	1.56%
Finland	1.18%	1.19%	1.20%	1.14%	1.11%	1.11%	1.11%
France	2.36%	2.33%	2.26%	2.17%	2.18%	2.17%	2.17%
Germany	3.66%	3.66%	3.66%	3.67%	3.66%	3.66%	3.66%
Greece	3.59%	3.66%	3.72%	3.73%	3.69%	3.70%	3.70%
Hungary	5.51%	5.37%	4.35%	3.93%	3.67%	3.61%	3.53%
Ireland	1.10%	1.10%	1.10%	1.10%	1.11%	1.11%	1.11%
Italy	5.34%	5.03%	4.27%	4.53%	4.85%	4.80%	4.77%
Latvia	3.01%	2.76%	2.76%	2.77%	2.97%	2.96%	2.95%
Lithuania	3.72%	3.72%	3.11%	2.90%	2.86%	2.82%	2.79%
Luxembourg	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%	0.63%
Malta	2.76%	2.91%	2.92%	2.92%	2.92%	2.93%	2.93%
Netherlands	1.64%	1.60%	1.62%	1.62%	1.64%	1.64%	1.64%
Poland	7.41%	7.42%	7.28%	8.35%	8.37%	8.39%	8.43%
Portugal	4.34%	3.95%	3.95%	3.95%	3.95%	3.93%	3.92%
Romania	2.47%	2.38%	2.39%	2.39%	1.79%	1.80%	1.79%
Slovakia	10.64%	10.02%	10.02%	9.93%	9.93%	9.91%	9.88%
Slovenia	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%	2.20%
Spain	5.34%	5.00%	4.91%	4.87%	4.82%	4.80%	4.78%
Sweden	1.97%	1.97%	1.97%	1.97%	1.97%	1.97%	1.97%

Source: EPRS

Econometric estimations (dependant variable is VAT gap in %)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.893770142
R Square	0.798825067
Adjusted R Square	0.788201204
Standard Error	0.067925451
Observations	135

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	2.418336956	0.806112319	174.715122	1.33836E-45
Residual	132	0.609030431	0.004613867		
Total	135	3.027367387			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.002444891	0.000265249	9.217346028	6.25757E-16	0.001920202	0.002969579	0.001920202	0.002969579
VAT arrears	0.059660796	0.010083931	5.916422383	2.67029E-08	0.039713783	0.079607808	0.039713783	0.079607808
Transparency	-0.000798355	0.000237366	-3.363392837	0.001007926	-0.001267888	-0.000328822	-0.001267888	-0.000328822

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.889765217
R Square	0.791682141
Adjusted R Square	0.780950052
Standard Error	0.069120815
Observations	135

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	2.396712696	0.798904232	167.2156886	1.31435E-44
Residual	132	0.630654692	0.004777687		
Total	135	3.027367387			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.001868244	0.00014609	12.78834585	7.30768E-25	0.001579265	0.002157224	0.001579265	0.002157224
VAT arrears	0.06538946	0.010118306	6.462491108	1.82503E-09	0.045374452	0.085404469	0.045374452	0.085404469
ICT	-77.60982964	30.68174058	-2.529511956	0.012598294	-138.3013452	-16.91831412	-138.3013452	-16.91831412

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.889839203
R Square	0.791813808
Adjusted R Square	0.781083714
Standard Error	0.069098968
Observations	135

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	2.397111299	0.7990371	167.3492713	1.26105E-44
Residual	132	0.630256089	0.004774667		
Total	135	3.027367387			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.000928312	0.000299883	3.095583229	0.002399086	0.000335114	0.00152151	0.000335114	0.00152151
VAT arrears	0.063686529	0.010135021	6.28380807	4.44867E-09	0.043638455	0.083734603	0.043638455	0.083734603
Org crime	0.00155622	0.00061106	2.546754867	0.012020752	0.000347483	0.002764958	0.000347483	0.002764958

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.899275387
R Square	0.808696222
Adjusted R Square	0.795117644
Standard Error	0.066745603
Observations	135

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	5	2.448220567	0.489644113	109.9094954	9.21044E-45
Residual	130	0.57914682	0.004454976		
Total	135	3.027367387			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.001795565	0.000390462	4.598566843	9.96056E-06	0.001023083	0.002568047	0.001023083	0.002568047
VAT arrears	0.05942483	0.009954237	5.969802698	2.12472E-08	0.039731563	0.079118097	0.039731563	0.079118097
Transparency	-0.000643474	0.000254721	-2.526190104	0.012730895	-0.001147409	-0.000139539	-0.001147409	-0.000139539
ICT	-35.11587325	32.59399089	-1.077372617	0.283309001	-99.59918616	29.36743965	-99.59918616	29.36743965
Org crime	0.001315472	0.000596978	2.203550906	0.029316895	0.000134422	0.002496522	0.000134422	0.002496522

Source: EPRS

Econometric estimations (dependant variable is compliance costs in %)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.897367689
R Square	0.80526877
Adjusted R Square	0.796285828
Standard Error	0.018346521
Observations	135

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	2	0.185124677	0.092562339	274.9963276	8.48046E-48
Residual	133	0.044767111	0.000336595		
Total	135	0.229891788			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.00068093	3.52253E-05	19.33071984	1.8867E-40	0.000611256	0.000750604	0.000611256	0.000750604
Transparency	-31.73482642	8.143714593	-3.896849043	0.000153738	-47.84277843	-15.62687441	-47.84277843	-15.62687441

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.90028292
R Square	0.810509336
Adjusted R Square	0.800062507
Standard Error	0.018166392
Observations	135

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	0.18632944	0.062109813	188.2014128	2.66097E-47
Residual	132	0.043562348	0.000330018		
Total	135	0.229891788			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.000787437	6.57566E-05	11.97502682	7.93835E-23	0.000657364	0.00091751	0.000657364	0.00091751
Transparency	-25.11173637	8.777250073	-2.861002724	0.004911602	-42.47400457	-7.74946816	-42.47400457	-7.74946816
ICT	-0.000130184	6.81357E-05	-1.910654438	0.058217572	-0.000264963	4.59537E-06	-0.000264963	4.59537E-06

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.900800889
R Square	0.811442241
Adjusted R Square	0.799490537
Standard Error	0.018190653
Observations	135

ANOVA

	df	SS	MS	F	Significance F
Regression	4	0.186543908	0.046635977	140.9368334	2.87855E-46
Residual	131	0.04334788	0.0003309		
Total	135	0.229891788			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.000750444	8.02928E-05	9.3463418	3.18308E-16	0.000591605	0.000909282	0.000591605	0.000909282
Transparency	-23.84699179	8.92827004	-2.67095324	0.008522884	-41.50923967	-6.184743905	-41.50923967	-6.184743905
ICT	-0.000121189	6.91356E-05	-1.752910609	0.081956693	-0.000257955	1.55782E-05	-0.000257955	1.55782E-05
Time VAT refund	5.90644E-05	7.33658E-05	0.805067621	0.422239438	-8.60706E-05	0.000204199	-8.60706E-05	0.000204199

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.901525626
R Square	0.812748455
Adjusted R Square	0.799294561
Standard Error	0.018197124
Observations	135

ANOVA

	df	SS	MS	F	Significance F
Regression	5	0.186844195	0.037368839	112.8506568	2.32729E-45
Residual	130	0.043047592	0.000331135		
Total	135	0.229891788			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.000685901	0.000105096	6.526434907	1.37415E-09	0.000477982	0.000893821	0.000477982	0.000893821
Transparency	-23.41128382	8.943158043	-2.617787107	0.009900177	-41.10425246	-5.718315187	-41.10425246	-5.718315187
ICT	-0.000123151	6.91909E-05	-1.779878678	0.077432106	-0.000260037	1.37345E-05	-0.000260037	1.37345E-05
Time VAT refund	2.77046E-05	8.04415E-05	0.34440651	0.731097099	-0.000131439	0.000186848	-0.000131439	0.000186848
Org crime	0.000169595	0.000178093	0.9522831	0.342720645	-0.00018274	0.00052193	-0.00018274	0.00052193

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.905588937
R Square	0.820091323
Adjusted R Square	0.808337689
Standard Error	0.017768556
Observations	135

ANOVA

	df	SS	MS	F	Significance F
Regression	4	0.18853226	0.047133065	149.286801	1.36867E-47
Residual	131	0.041359527	0.000315722		
Total	135	0.229891788			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Burden gov	0.000538471	0.000114108	4.718975854	5.99722E-06	0.000312739	0.000764203	0.000312739	0.000764203
Difficult paying taxes	0.000771933	0.000292242	2.641419597	0.00926064	0.000193809	0.001350056	0.000193809	0.001350056
Transparency	-17.49924909	9.055855613	-1.932368385	0.055472468	-35.41389167	0.415393493	-35.41389167	0.415393493
ICT	-0.000130615	6.66438E-05	-1.959892835	0.052131181	-0.000262452	1.22263E-06	-0.000262452	1.22263E-06

Source: EPRS.

Annex

Use of data on VAT transactions in the EU, reduction of the VAT gap and compliance costs: Case analysis and identification of solving tools

Research paper

This study, starting from a brief description of the EU VAT operating mechanisms, proceeds with an analysis of the exchange of information on VAT transactions between Member States. Taking into account the important impact that the Covid-19 pandemic has had and is having on transactions between Member States, we have come to the indication in this study of the proposals aimed at further reducing the VAT gap and compliance costs. These measures cannot be separated from greater automation and computerisation of the public administrations of the member countries. The introduction, where not yet mandatory, or the strengthening of the use of electronic invoices is certainly one of the main tools identified to contribute to these two problems, but the data coming from these documents cannot be used effectively if the public administration does not implement its own assessment and verification procedures with modern technological tools of "big data analysis" and artificial intelligence.

EPRS | European Parliamentary Research Service

AUTHOR

This study has been written by Prof. Alessandro Zavaglia at the request of the European Added Value Unit of the Directorate for Impact Assessment and European Added Value, within the Directorate-General for Parliamentary Research Services (EPRS) of the Secretariat of the European Parliament.

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Executive Summary

This Study has been written for the European Parliament, Directorate-General for Parliamentary Research Services, Directorate for Impact Assessment and European Added Value for the research paper "*Assessment of European Added Value related to better information and exchange of data on the VAT transactions with a view of reducing the VAT gap – FISC INL Fair and simpler taxation supporting the recovery strategy*".

This study, starting from a brief description of the EU VAT operating mechanisms, proceeds with an analysis of the exchange of information on VAT transactions between Member States. The exchange mechanisms between operators from different EU countries currently in force or coming into operation are: VIES (VAT Information Exchange System); Intrastat; MOSS (Mini One Stop Shop); IOSS (Import One Stop Shop); OSS (One Stop Shop). The data collected through these systems, allows each Member State to analyze transactions in order to prevent fraud with using the "Transaction Network Analysis" (TNA) tool. Furthemore, the action of the financial administration aimed at combating carousel fraud consists mainly in carrying out investigations aimed at identifying the "paper companies", but the actions implemented so far have led to results that are not always satisfactory. For this reason the European Commission has always felt the need for remedies to improve and intensify cooperation between the various tax authorities of Member States. The action to combat fraud must also necessarily concern greater harmonization of VAT rules among the various Member States. The first important step was taken by the EU Commission (October 2017) in which the instruments of the definitive VAT system were identified with reference to intra-EU sales of goods between taxable persons. Subsequently, (October 2018) the "Ecofin" Council proposed a series of amendments to EU VAT regulations for taxation in the country of destination.

Taking into account the important impact that the Covid-19 pandemic has had and is having on transactions between Member States, such as to lead to very recent reflections by the EU on the measures to be taken, we have come to the indication in this study of the proposals aimed at further reducting the VAT gap and compliance costs. These measures cannot be separated from greater automation and computerization of the public administrations of the member countries. The introduction, where not yet mandatory, or the strengthening of the use of the electronic invoice is certainly one of the main tools identified to contribute to these two problems, but the data coming from these documents cannot be used effectively if the public administration does not it will implement its own assessment and verification procedures with modern technological tools of "big data analysis" and artificial intelligence.

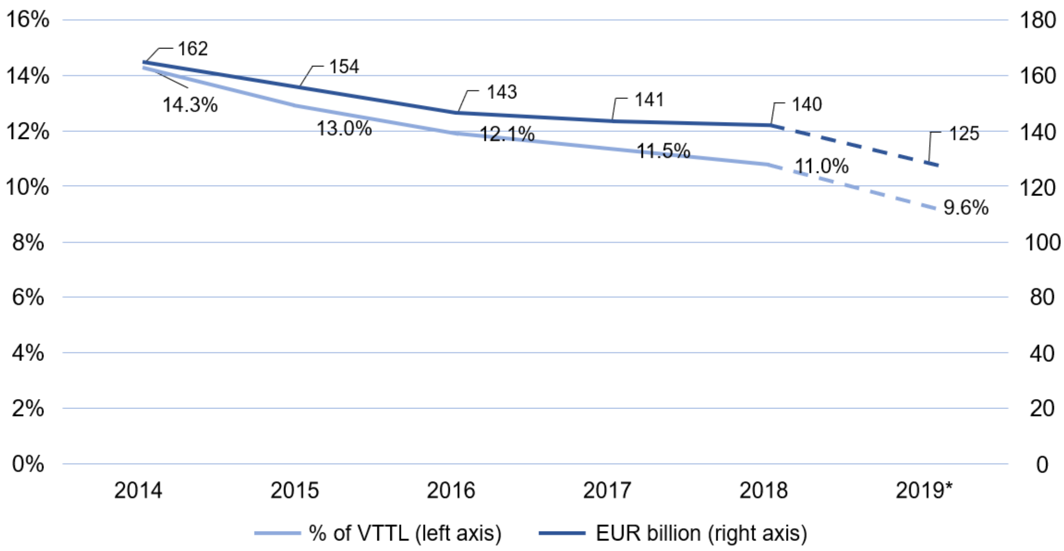
In detail, the proposals envisage the introduction of the mandatory electronic invoice in all Member States; the use of a single Community VAT number; the use of tax operating mechanisms for some sectors based on the "reverse charge system" and on the "split payment system"; the binding introduction of electronic money payment devices for the certification of receipts. Particular attention was paid to the study in dealing with the problem of the circulation of VAT credits, which today represent an important source of liquidity for operators and, therefore, can be subject to fraud aimed at their fictitious creation. This problem can only be solved with the introduction of the obligation of electronic invoicing and a strengthening of the certification obligations of VAT credits by qualified parties.

The reduction in compliance costs will be very evident with the introduction of electronic invoicing as the "time" necessary for operators to devote to tax compliance will decrease in the medium term. Digitization will lead to a progressive reduction in the number of formalities and the time required to carry them out. Translated into costs, this process will concern labor direct and indirect costs, various costs.

Introduction

In September 2020 the European Commission published its annual report on the value added tax (VAT) Gap,[1] i.e. the difference between the total VAT that each government should have collected had there been no erosion of the tax base and the amount that was actually collected thus allowing a comparison between the levels of evasion in the various member states. The data published in the 2020 report relates to 2018, although some interesting estimates are also made for 2019 and 2020. The VAT gap is calculated by comparing the potential VAT amounts with those actually declared to the tax authorities. While the latter are known from the actual revenues derived from the collection of VAT, the former are obtained by making the macroeconomic data (such as those on aggregate consumption) consistent with tax legislation. The difference between the potential and actual revenue is then divided by the potential revenue to arrive at, the percentage of tax that has not been collected compared to the expected total.

Figure 1: Evolution of the VAT Gap in the EU , 2014-2018 and Fast Estimate for 2019

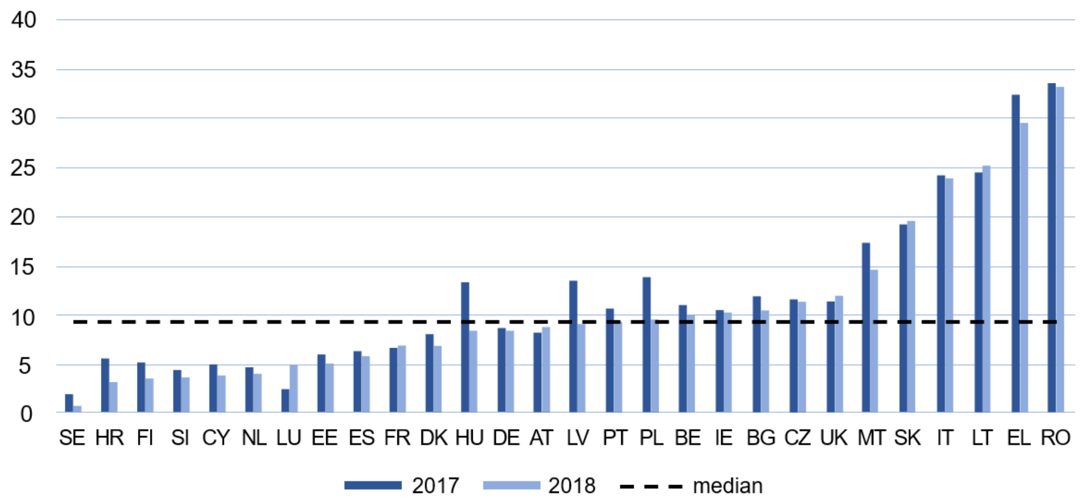


Source: "Study and Reports on the VAT Gap in the EU-28 Member States – 2020 Final Report" – European Commission, Directorate-General for Taxation and Customs Union https://case-research.eu/files/?id_plik=6544

The 2018 data show that the gap is relativity stable, with a very small reduction, from 11.2 percent in 2017 to 11 percent in 2018. Romania is confirmed as to be the country with the largest VAT gap (33.8 per percent), although this is an improvement compared to 35.5 percent in 2017. Greece, Lithuania and Italy follow. The best performing country in relative terms is Sweden, with a loss of less than 1 percent of potential revenue.

[1] "Study and Reports on the VAT Gap in the EU-28 Member States – 2020 Final Report" – European Commission, Directorate-General for Taxation and Customs Union

Figure 2: VAT Gap as a percent of the VTTL in EU-28 Member States, 2018 and 2017



Source: "Study and Reports on the VAT Gap in the EU-28 Member States – 2020 Final Report" – European Commission, Directorate-General for Taxation and Customs Union https://case-research.eu/files/?id_plik=6544

In the report, the European Commission lists a series of variables - inserted into an econometric model - that can influence the trend of the differential, grouped into four categories: variables related to the management of the tax administration, macroeconomic variables, variables on the economic structure and institutional status of the country and transactions that involve a greater risk of tax fraud (for example imports, which are easier to hide from the tax authorities).

The tax administration, in particular, seems to play an important role in determining the value of the gap. The more efficient it is, the higher the percentage of tax collected by the state is. The macroeconomic variables confirm the fact that the economic trend affects the level of tax evasion. An increase in GDP or consumption, for example, tends to reduce the differential, while high unemployment tends to increase it. Precisely for this reason, it is believed that the VAT gap will grow significantly in 2020 since they have, all Member States been affected by the devastating economic effects of the pandemic.

The most interesting evidence, even if already quite well known, comes from the group of structural variables. The size of businesses, for example, has a strong impact on the level of evasion: the greater the number of employees per business, the lower the rate of VAT evasion. Further rather obvious evidence confirmed by the report is that concerning the percentage of transactions carried out electronically (which cause a reduction in the differential) and the size of the underground economy (which causes an increase).

Purpose, scope methodology

This study, starting from the factors indicated above and from an analysis of the information held by the tax authorities of the individual European Member States, through analysis of the most representative economic transactions, contains technical proposals aimed at stemming the problem of the VAT gap compatibly with a reduction of compliance costs for European companies.

The structure of this study is characterized by the following chapters. Chapter 1 presents the main rules for the functioning of VAT. Chapter 2 illustrates the current situation regarding the exchange of tax data between Member States, while chapter 3 describes and analyzes the cooperation mechanisms between Member States in the field of information exchange and combating fraud. Chapter 4 provides an accurate description of the state of harmonization of VAT legislation within the European Union, in particular by analyzing the recent initiatives promoted by the European administrative authorities and the possible developments also dictated by the effects of the Covid-19 pandemic. Chapters 5 and 6 illustrate the proposals contained in this study aimed at reducing the VAT gap and compliance costs.

Regarding its methodology, the study is based on an analysis of the applicable European legal framework and jurisprudence, attempting to identify regulatory gaps, analyze them and present policy options. The study also draws on the descriptive and analytical literature focusing on VAT in the EU, as well as publicly available reports and studies. Additional information was obtained by the author from websites that identify reliable sources of information.

Table of Contents

Table of Figures

List of Acronyms and Abbreviations

B2B	Business to Business
B2C	Business to Consumer
B2G	Business to Government
CJEU	Court of Justice of the EU
CTP	Certified Taxable Person
DAC	Administrative Cooperation Directive
EEC	European Economic Community
EU	European Union
EU-28	Member States of the European Union, UK inclusive
GRCM	Generalised Reverse Charge Mechanism
GDP	Gross Domestic Product
IOSS	Import One Stop Shop
IT	Information Technology
MOSS	Mini One Stop Shop
OECD	Organization for Economic Cooperation and Development
OLAF	European Anti-Fraud Office
OSS	One Stop Shop
PEPPOL	Pan-European Public Procurement On Line
POS	Point of Sale
SDI	"Sistema di Interscambio" (Interchange System)
SDG	Single Digital Gateway
SME	Small and Medium Enterprise
TFEU	Treaty on the Functioning of the European Union
TNA	Transaction Network Analysis
VAT	Value Added Tax
VIES	VAT Information Exchange System
VTTL	VAT Total Tax Liability
XML	eXtensible Markup Language

1. Defining and general aspects of the VAT and application mechanisms

The main objective of this study is to provide an organic proposal of measures aimed at reducing the VAT gap and reducing compliance costs for European economic operators.The assessment carried out is based on the gap between the VAT actually paid and the tax that taxpayers would have had to pay in a regime of where there is perfect compliance with tax and social security obligations provided for by the legislation in force.

In particular, with regard to the tax component, the tax gap, calculated as the difference between theoretical and actual revenue, expresses a measure of tax non-compliance making it possible to identify and quantify the extent of taxpayers' spontaneous non-compliance. In order to monitor tax compliance, and the performance of the tax system in general. It is also useful to calculate an indicator of taxpayers' propensity for non-compliance (propensity for the gap), given by the ratio between the amount of the tax gap and theoretical revenue: a reduction in this ratio is equivalent to an improvement in tax compliance, and vice versa.

In economics there is a distinction between the tax gap net of non-payments (the assessment gap), i.e. the difference between what the taxpayer theoretically would have had to pay and what was actually declared, and the tax gap due to omitted payments (the collection gap), i.e. the difference between what was declared and what was actually paid. For the purposes of this study, i.e. in order to identify the solution proposals described above, it was decided to refer to the tax gap distinguishing between these two components or to the tax gap gross of the subsequent recovery of tax revenues due to assessment.

In light of internationally established conceptual definitions, a broader interpretation of the tax gap also includes the loss of revenue due to the various policy measures that provide tax relief in the form of rate reductions, tax cuts or special favourable regimes, the general principles to which the taxation system must respond, which constitute the so-called tax expenditure. According to this interpretation, the total tax gap is the difference between what the taxpayer should theoretically pay according to a tax reference model and what is actually collected. More precisely, the total tax gap is divided into two parts: the compliance gap, or the tax gap in the strict sense, which only takes into account the gap with respect to compliance with existing legislation, and the policy gap, or a measure of the discrepancy between existing legislation and the reference tax model. Applying an all-encompassing (holistic) approach, which is the one underlying this study and the proposals contained herein, the efficiency of the tax system is thus determined by:

i) the effects resulting from policy choices that lead to a reduction in revenue, such as tax expenditure (policy gap);
ii) the effects arising from taxpayers' spontaneous compliance with tax regulations (compliance gap).

Therefore, the policy gap provides a quantification of the so-called tax "erosion", i.e. the effect of all those rules that make it possible to reduce the taxable base "theoretically" subject to tax or that make it possible to reduce applicable rates; while the compliance gap includes the results of tax evasion and avoidance, tax fraud, non-payment of declared taxes and all possible unintentional errors that alter revenue.

Tax evasion is the intentional unlawful evasion of assessment and payment of taxes by the taxpayer, through the deliberate total or partial concealment of income and assets and the consequent violation of tax regulations.Tax avoidance, on the other hand, consists in the taxpayer circumventing tax obligations, without violating them, through conduct or other legal means, with the aim of obtaining an illegitimate tax saving. Tax fraud is the most serious form of evasion, since it involves the fraudulent concealment of the tax base, and / or tax due, by means of acts or facts designed to divert detection by the tax authorities.

For the sake of simplicity, **in the rest of this report the term VAT gap will refer only to the "compliance gap"**. An improvement in the performance of the tax system through the reduction of both the policy gap and the compliance gap inevitably implies, without compensation in terms of reduction of the tax burden, an increase in revenues. In order to be able to create a framework for greater understanding of the current legislation and evaluation of the proposals contained in this document, it is appropriate to give a concise representation of the functioning of the tax within the European Union (EU).

VAT applies to the exchange of goods and services, the consumption of which implies indirect proof of the ability to pay it. It only affects the value added to goods and services in accordance with a multi-stage mechanism allowing the deduction of tax applied to purchases from that applied to sales. The final transferee or consumer (defined as the substantial "taxable person") is not entitled to deduction and is, therefore, the person who is ultimately liable for the tax. These characteristics allow VAT to be applied in cross-border transactions without causing distortions which is why it is the tax with the highest degree of harmonisation within the EU. This has been achieved by following a path that began in the 1960s and ended with the current Community legislation.[2]

The fact that it is a tax harmonised at European level also conditions the interpretation submitted to the Court of Justice of the EU which often intervenes in the context of infringement or preliminary reference procedures in order to ensure uniform application of EU law throughout the EU. VAT is based on three conditions:

- ✓ *objective*, i.e. relating to the transfer of goods and provision of services;
- ✓ *subjective*, i.e. relating to the exercise of a business, art or profession;
- ✓ *territorial*, i.e. relating to a place of definitive taxation coinciding with that of the country in which the goods are released for consumption.

From a territorial point of view, goods entering the territory of an EU Member State from another Member State create a link between the transaction and the local tax authority and therefore legitimises the levying of VAT on the taxable transaction, even if previous stages took place outside the territory of that Member State. As regards the provision of services, the rules on territoriality are more complex as they are affected by the difficulty of identifying the exact place where the service is provided. For this reason, the criteria for identifying the place where the service is provided are different and include, for example, customer tax residence, property location for real estate services, distance travelled for transport services, place of consumption for catering services, and place of performance for artistic, sporting, or cultural activities. There are further exceptions for services provided to customers who are non-taxable persons, such as in the case of intermediary services and transport of goods within the territory of a Member State; others refer to the customer's place of residence (such as in the case of vehicle and boat hire, electronic and telecommunications services). Furthermore, if the customer is neither a taxable person nor established in the EU territory, then the tax is not applicable due to the lack of the territoriality requirement in cases of provision of services related to rights on intangible assets, advertising, technical and legal assistance and data supply, financial services, job hiring, and supply and sale of gas and electricity. The territoriality requirement is waived in cases of export but taking into account the elimination of customs between EU Member States, the term export is used only for transactions with non-EU countries.

[2] Directive 2006/112/ EC

Therefore, these transactions are defined as "non-taxable". On the other hand, when goods from a non-EU country are brought into the national territory, the tax must be applied on the full value of the goods in order to bring the tax burden on those goods in line with that imposed on purchases of goods from EU countries. In these cases, therefore, the tax applies to whoever places the goods in the national territory. In the sale of goods between taxable persons established in two different EU countries, the VAT in force in the country of destination of the goods (country of the purchaser) generates entitlement to deduction for the purchaser through self-invoicing.

There are various forms of VAT avoidance that the European legal system tackles at the level of interpretation of the common legislation, requiring Member States to implement effective law enforcement tools. **Tax avoidance occurs mainly in relation to VAT-exempt transactions**. That is those in which the transferor or provider loses the right to deduct input tax on purchases. Indeed, in such situations, case law of the Court of Justice of theEU (CJEU) has often had to intervene to reconstruct all or part of the transactions that taxpayers have tried to include among those entitling them to deduct input VAT. To this end, the CJEU regularly applies the principle of abuse of rights. Less frequently, forms of international tax avoidance in the field of VAT have been brought to the attention of the CJEU. These include one case relating to the supply of digital services in which one Member State questioned the provision of the same services by another Member State where the provider could obtain an advantage from a lower rate (CJEU, 18.12.2015, case C-419/14).

The phenomenon of tax evasion takes on more worrying dimensions, especially in relation to VAT-exempt transactions, where the VAT self-policing system consisting of the link giving right to deduction is not applied, as well as in relation to those goods that are imported without paying the tax. In such cases, the most effective reaction must be to oppose it with substantive controls, thanks to which it is possible to acquire factual evidence relating to these types of violations. By far the most worrying problem of non-payment of value added tax at international level, however, is fraud. Fraud has increased significantly since the abolition of customs borders and the establishment of the intra-EU transfer regime, in addition to the use of subjectively and objectively false invoices and conditioning of the operation of some product sectors.

In particular, the Court of Justice of the EU has repeatedly ruled on cases of carousel fraud in which a person buys goods from a seller established in another European Member State without paying VAT and then resells the goods to a buyer who in turn deducts input VAT. The damage to the tax authorities from this type of fraud is potentially large since each time these goods are transferred the tax authorities incur a loss for the amount of VAT due by the intermediary party and that deducted by the buyer. However, the Court of Justice (CJEU 12.1.2006, C-354-355 / 03, C-484/03; CJEU 6.7.2006, C-439-440 / 04; CJEU 21.2.2008, C-271/06) has clarified that when the latter has acted in good faith, not being aware of the fraudulent scheme or not being able to reasonably know about it, in the interests of tax protection it is not possible to go as far as to hold this person financially liable for the fraudulent scheme set in motion by others.

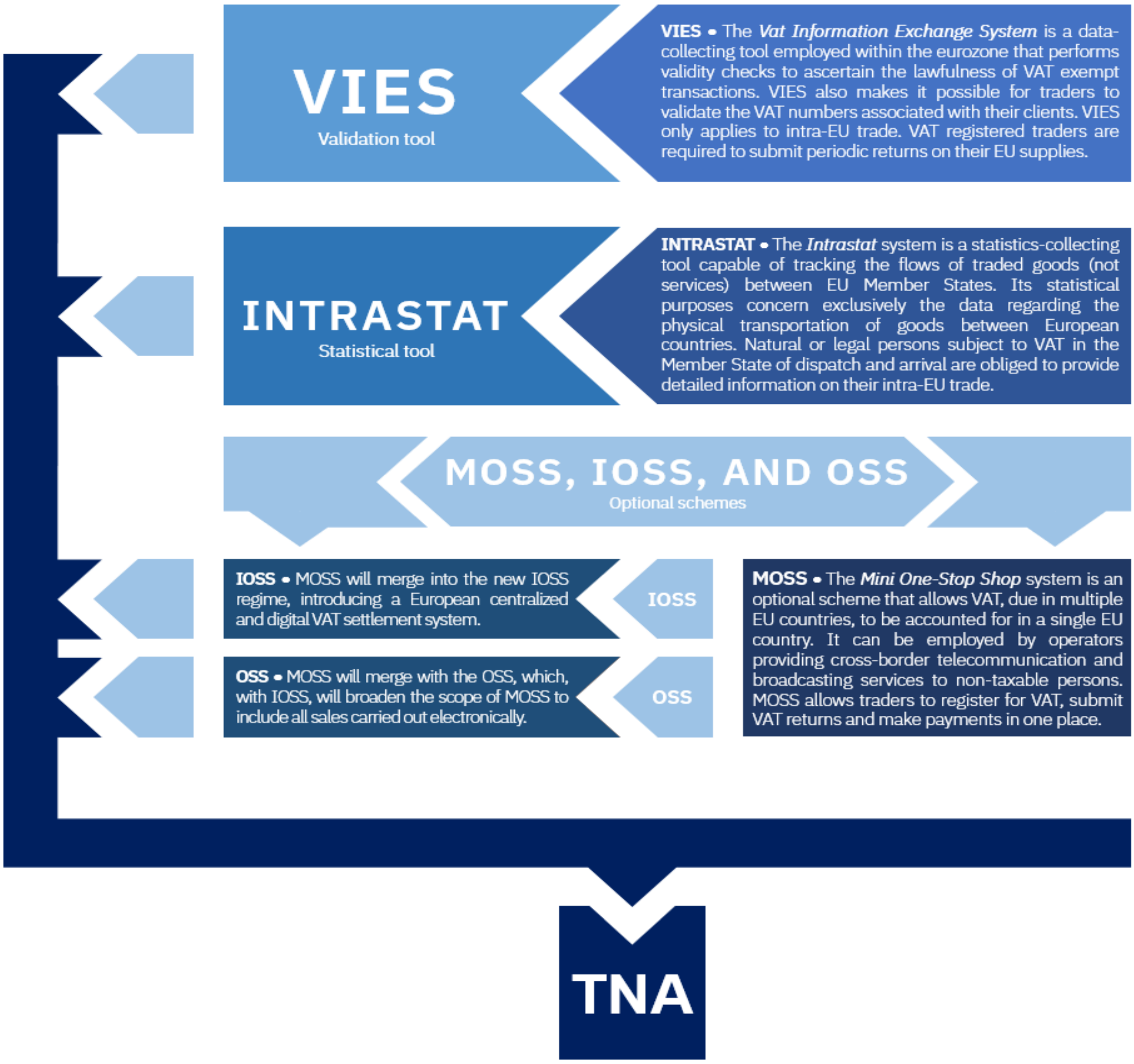
2. Exchange of information and analysis of VAT Data in the EU

EU economic operators who carry out intra-EU transactions in goods and services have reporting obligations in order to enable the competent EU authorities to acquire and analyse data relevant for VAT purposes. The data exchange mechanisms between operators from different EU countries are:

- ✓ VIES (VAT Information Exchange System);
- ✓ Intrastat;
- ✓ MOSS (Mini One Stop Shop);
- ✓ IOSS (Import One Stop Shop);
- ✓ OSS (One Stop Shop).

The diagram in figure 3 illustrates the data processed by the systems listed above and their interactions:

Figure 3: Diagram of data flows between systems in place



Source: Author

The VAT Information Exchange System (VIES) is a mechanism which makes it possible to carry out checks in each Member State on the validity of requests to carry out VAT exempt transactions with operators from other EU countries. In particular, VIES makes it possible for traders to confirm the VAT numbers of their customers in other EU Member States in order to check the validity of the VAT numbers they have quoted. The VIES system only applies to intra-EU trade and VAT registered traders are required to submit periodic returns on their EU supplies.

Intrastat is the system for collecting statistics on the movement of goods, not services, between EU Member States. The general concept of intra-EU trade statistics is independent from the ownership of the goods and concerns only their physical movement.Statistics on goods traded between Member States record dispatches and arrivals of goods. Dispatches cover the following goods leaving the member State of dispatch and destined for another State member:[3]

a) Community goods, with the exception of goods in simple circulation between Member States;
b) Goods placed in the Member State of dispatch under the inward processing customs procedure or the processing under customs control procedure.

Arrivals cover the following goods entering the Member State of arrival which were initially dispatched from another Member State:

a) Community goods, with the exception of goods in simple circulation between Member States;
b) Goods formerly placed in the Member State of dispatch according to the inward processing customs procedure or the processing according to customs control procedure, which are maintained according to the inward processing customs procedure or the processing according to customs control procedure or which have been released for free circulation in the Member State of arrival.

The following are obliged to provide information for Intrastat:

1. Natural or legal persons subject to VAT in the Member State of dispatch who:
   i) have entered into the contract, with the exception of transport contracts, giving rise to the dispatch of goods or, failing that,
   ii) dispatch or arrange for the dispatch of the goods or, failing that,
   iii) are in possession of the goods to be dispatched.

2. Natural or legal persons subject to VAT in the Member State of arrival who:
   i) have entered into the contract, with the exception of transport contracts, giving rise to the delivery of goods or, failing that,
   ii) take delivery or arrange for delivery of the goods or, failing that,
   iii) are in possession of the goods which are the subject of the delivery.

The mini one-stop shop (MOSS) for VAT is an optional scheme that allows VAT, which is normally due in multiple EU countries, to be accounted for in a single EU country. The system can be used by anyone providing cross-border telecommunication, television and radio broadcasting or digital services to non-taxable persons. The services provided by the MOSS system include:

- ✓ website hosting;
- ✓ supply of software;
- ✓ access to databases;

[3] REGULATION (EU) N. 638/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of March 31, 2004

- ✓ downloading applications or music;
- ✓ online gaming;
- ✓ distance learning.

The MOSS scheme allows you to register for VAT, submit VAT returns and make payments in one place, without having to register with the tax authorities of each country in which you operate. The rules of the MOSS scheme should be applied to customers in all EU countries where supplies are made.

MOSS provides for two types of schemes:

- ✓ the EU scheme, for companies established in the EU or with at least one branch based in an EU country;
- ✓ the non-EU regime, for companies that do not have their headquarters or branches in the EU.

Under the MOSS scheme, a taxable person registered with the Mini One-Stop Shop in a Member State (the Member State of identification) submits quarterly electronic VAT returns, in which they provide details of supplies of telecommunications, broadcasting and electronically supplied services provided to persons who are taxable persons and resident in other Member States (the Member States of consumption), and pays the VAT due on all transactions to the Member State of identification. These returns are then transmitted together with the related VAT payments from the Member State of identification to the corresponding Member States of consumption via a secure communications network.

The MOSS regime will merge into the new OSS / IOSS regimes, which introduce a European centralized and digital VAT settlement system, which, by broadening the scope of the MOSS (concerning only electronic, telecommunication and broadcasting services), includes the following transactions:

- ✓ distance sales of goods imported from third territories or third countries (with the exception of goods subject to excise duties) carried out by suppliers or through the use of an electronic interface;
- ✓ intra-community distance sales of goods by suppliers or through the use of an electronic interface;
- ✓ national sales of goods made through the use of an electronic interface;
- ✓ supply of services by taxable persons not established in the EU or by taxable persons established within the EU but not in the Member State of consumption to non-taxable persons (final consumers).

The entry into force of the OSS / IOSS regimes, originally provided for by the EU Directive no. 2455/2017 on 1 January 2021, was postponed to 1 July 2021 in consideration of the negative effects of the Covid-19 pandemic.

The data collected through the systems described above, allows the authorities of each Member State to analyse the transactions that have taken place in order to identify, and possibly prevent, fraud. To this end, the European Commission has developed the **"Transaction Network Analysis" (TNA) tool**, a tool for the prevention and control of VAT fraud, which is configured and interacts with authorities as software for cross-checking data on VAT returns provided by companies carrying out transactions involving multiple Member States. More specifically, through a process of data mining aimed at finding unknown information from other already known data (such as that contained in the VIES or in relation to activities carried out by companies already under investigation), this software aims to carry out a preliminary collection of formal indications. These indicators could be processed in order to identify, in shorter timeframes than previously, both inconsistencies between the purchases and sales of companies whose activities have been reported in the system, and other elements symptomatic of the presence of fraudulent transactions. In this way, the intention of the EU was to put the recipients of the report in the position to be able to prevent fraud or, where already under way, to tackle it immediately.

If this was the aim and result desired from a practical point of view, the TNA could work to satisfy much wider and greater needs which, as stated by the European Commission itself, must be identified in the need to create an even more solid and efficient cooperation between Member States and EuroFisc for the joint analysis of information in order to be able to identify and intercept VAT carousel fraud as quickly and effectively as possible, carry out cross-checks with criminal records, databases and information held by Europol and OLAF, and to coordinate cross-border investigations.From the specific point of view of combating VAT fraud, the benefits of the TNA are significant and readily understandable and are of a different nature and can actually benefit honest taxpayers. First of all, it has been configured as an implementation of an already existing computerised control system, the VIES, which is used for the exchange VAT information with the dual purpose of making it easier for companies to check the VAT status of their trading partners and, at the same time, providing the tax authorities with the possibility of monitoring the flow of intra-EU trade in order to detect any irregularities.

Secondly, the introduction of the TNA, is part of an integrated EU-wide policy and strategy for investigating and combatting fraud, moving away from the old and ineffective approach that often saw the individual authorities of Member States acting autonomously, independently and, even more seriously, without involving all the Member States concerned.

Thirdly, the possibility for the tax authorities of Member States to have access to an integrated tool such as the TNA represents, at least potentially, an additional means by which any taxpayer who has participated in good faith in VAT fraud can be more effectively protected. Indeed, the data mining process may make it possible for national tax authorities to trace back to the gestation phase of potential fraud in a more accurate and comprehensive manner. To gather elements which are not only capable of preventing it if it has not yet been carried out, but also of avoiding the involvement, or at least of alerting in good time any taxpayer who has been caught up in the fraudulent scheme without knowing, or being able to know, of the fraudulent intent of the other parties involved in the transactions.

Traditional VAT enforcement mechanisms that rely on the periodic reporting of aggregate data and infrequent tax audits have largely proven inadequate for detecting and eliminating fraudulent activities. It is clear that tax collection could be improved if tax authorities received transaction data on a more frequent basis. But it is equally clear that reducing compliance costs cannot be achieved by increasing the frequency of the requirements already in place, especially in those systems where invoicing is still done on paper rather than via digital media. In particular, paper invoices, although containing the same information as electronic invoices, require manual recording of the data they contain, except in the case where there is subsequent digitalisation through the use of data management software.

In an attempt to reduce the incidence of VAT fraud, more and more European governments are turning to the invoice clearance model. In contrast to traditional VAT reporting methods where VAT returns and supporting documentation are submitted to the tax authorities some time after business transactions have taken place, under the clearance model the successful registration of an invoice on a government platform is a precondition for the invoice being recognised for VAT purposes. This allows tax authorities to receive real-time data on commercial transactions and thus detect fraudulent transactions in a timely manner.

The European Commission has announced its intention to present a legislative proposal to modernise VAT reporting obligations in 2022. It is currently considering different options (including mandatory e-invoicing) that could provide tax authorities with more detailed and real-time information. However, some countries are launching their own initiatives to enable real-time monitoring of business transactions and, taking what has already been done in Italy as an example, have already taken the first steps towards introducing a regulatory system for electronic invoicing.

The first country to introduce B2B e-invoicing was Portugal. Back in 2012, they decided to require electronic invoices for all transactions. By doing this they have obtained more than satisfactory results in the prevention of tax evasion. Italy was the first EU country to introduce mandatory e-invoicing for both business-to-business (B2B) and business-to-consumer (B2C) transactions. A new approach to VAT compliance was deemed necessary following many years in a row where Italy had been consistently recording the largest VAT gap in the EU. The e-invoicing obligation mandated by the 2018 Budget Law entered into force on 1 January 2019. It requires all businesses in Italy (resident or foreign with a permanent establishment in Italy) to issue electronic invoices in a specific XML format and issue them through a state-operated interchange system (Sistema di Interscambio, SdI). If an invoice is not issued in electronic format, or if a business does not send it via the SdI, the Italian authorities consider the invoice “not issued”. In order to implement mandatory e-invoicing, Italy had to obtain permission from the European Commission to derogate them to deviate from the provisions of the VAT Directive for the period up to December 31, 2021 (Italy is submitting a request to assess the effectiveness of the measure in order to obtain an extension).

France introduced mandatory electronic invoicing in 2019 under the 2020 Budget Law which, in article 153, states that "invoices in transactions between taxable persons must be issued in electronic format and the data contained therein must be transmitted to the tax authorities in order to modernise VAT collection and control procedures.” Thus, it is clear that the French government intends to implement a system in which VAT returns are pre-filled with data collected from invoices exchanged between businesses meaning that tax authorities can analyse purchase and sales data automatically. The e-invoicing obligation will be limited to domestic B2B transactions and there is currently no obligation to apply it in business-to-consumer (B2C) transactions. Obviously, international transactions are excluded from the scope given the lack of harmonisation of e-invoicing rules at EU and global level. Taxable persons not established in France will not be subject to the new obligations. Since mandatory electronic invoicing will not be extended to all transactions, the French tax authorities will support the obligation to report data on international B2C and B2B transactions (e-reporting) in order to complete the acquisition of the data deemed essential. The e-invoicing reform will be implemented in different stages. In 2023 all companies must be capable of receiving electronic invoices, but only large companies will be obliged to issue them. In 2024, the obligation to issue electronic invoices will be extended to intermediate-sized enterprises and only from 2025 will small and medium-sized enterprises be subject to the new obligations.

Poland has published a draft law on the voluntary use of e-invoicing in B2B transactions. The draft law defines a structured e-invoice that will be issued, received, and exchanged through a government-operated platform (following the example of Italy). As the new system is voluntary, the supplier will need to obtain the customer’s approval before issuing structured e-invoices but, in addition to consistency and standardisation, there will be two benefits for taxpayers who opt to use this system. They will no longer be obliged to submit periodic VAT returns and may be able to obtain VAT refunds in a shorter time. The Polish parliament will shortly be called upon to approve the draft law which will come into force in October 2021, but it has already taken steps to obtain authorisation from the EC since an obligation to issue invoices exclusively in a predefined electronic format constitutes a deviation from the provisions of the VAT Directive.

Although Germany has very large annual losses of VAT revenues (second only to those in Italy), the government has not yet started the process of studying and phasing in electronic invoicing. In

February 2021, some members of parliament asked the German parliament to consider introducing an electronic invoicing system similar to the Italian one. The German Court of Auditors has recommended greater reliance on digital technologies as current fraud detection methods are insufficient.[4]

[4] With Directive 2014/55/EU: "Electronic invoicing in public procurement" the obligation to send and receive electronic invoices to and from public authorities has been extended to all EU countries. Again, e-invoice must comply with certain characteristics and technical conditions, as was already the case in Italy.

The electronic invoice formats accepted and compliant with the European technical standard EN 16931 are: Xml - Ubl 2.1 and CII - 16B.

The most widely used format is still CII, in particular the XML UBL version. This format allows the use of over 60 commercial documents, supporting all stages of the order cycle and simplifying activities.

3. Cooperation mechanism between Member States

The creation of a single market at European level and the mechanism of non-taxability that characterises intra-EU trade favours fraud which is also made possible by the existence of the many obstacles that the investigative bodies encounter when their investigations have to cross national borders. In the absence of what has been defined as '`free circulation of administrative action´, the threat of fraud is an almost insuperable problem with the ordinary instruments of national administrative action available to each Member State.

Indeed, the action of the tax authorities that is aimed at combating carousel fraud consists mainly of carrying out investigations and is aimed at ascertaining the existence of the fraud at the stage in which the first transfer between a 'missing trader' (also known as a "paper company") and the first buyer took place in order to prevent the fraud chain from growing to involve other taxable persons who may be aware or unaware of the illicit activity. Subsequently the tax authorities begin work with the aim of recovering the lost tax income mainly, in the case of such frauds, by disallowing the entitlement to deduct input tax being the main deterrent.

This measure does not succeed in stopping the phenomenon since by disallowing deduction of input tax the tax authorities succeed in blocking the negative effect of the fraud only in cases where carousel fraud is carried out with objectively non-existent transactions, and therefore when in the absence of an actual underlying exchange, the main purpose of criminals is to impoverish the Treasury by deducting the tax. If, on the other hand, the fraud is carried out with transactions that are only subjectively non-existent, and therefore there has been an effective exchange between the paper company and the domestic buyer, even if involved in the fraud, in addition to disallowing the deduction a complicated recovery action will commence against the paper company to recover the tax due.

For these reasons the European Commission has always felt the need for remedies to improve and intensify cooperation between the various tax authorities of Member States. EU law, unless otherwise provided for in Treaties, in principle attributes enforcement activity to the Member States, as established by the same in art. 291, paragraph 1, TFEU. Regardless of whether these are matters of exclusive EU competence or remain under the sovereign power of the Member States, both being, from the point of view of the administrative function, the absolute prerogative of the latter.

Therefore, in the absence of a genuine Community administration, the national administrative function becomes a primary instrument for the proper fulfilment of the competences and objectives of the EU. The proper functioning of the administrative power of the Member States, and thus of the administrative apparatus itself, therefore constitutes the main instrument of the EU, which, in order to ensure the concrete implementation of European legislation in the areas of exclusivity, supports the efforts of the Member States to improve their administrative capacity and, as a result, EU law. Indeed, pursuant to art. 325 TFEU, Member States should in this respect take any general or particular measures to ensure compliance with obligations arising out of the Treaties or resulting from provisions of EU institutions. This duty of proper administration is based on the principle of sincere cooperation or loyal collaboration which is the foundation of all relations between Member States and theEU as well as between the EU institutions themselves. Thus, art. 4 No. 3 of the TEU states that: "Pursuant to the principle of sincere cooperation, the Union and the Member States shall, in full mutual respect, assist each other in carrying out tasks which flow from the Treaties".

This principle, in limiting the risk of evasion and avoidance and in protecting the effectiveness of assessment and collection, was initially developed from a substantive point based on the model of art. 26 of the OECD model for convention for double taxation, entitled "exchange of information". The exchange of information today has a solid regulatory basis at EU level and involves to a certain extent almost all administrations that have to apply EU rules concerning mainly harmonised taxes. The regulations regarding the exchange of information in the field of value added tax are contained in the provisions of Council Regulation no. 1798/2003 / EC (now recast in the European Council Regulation of 7 October 2010, no.904 / 2010 / EU and in the European Commission Regulation of 31 January 2012, no. 79/2012 / EU) which was last amended by Community Regulation n. 2017/2454, on administrative cooperation and combatting VAT fraud which takes into account the extension of the special MOSS regime to distance sales made to private consumers.

Therefore, the Member States, in fulfilling their duty of sincere cooperation and proper application of EU law, may make use for this purpose - and at the same time are obliged to follow the requirements of the regulations in question - of the administrative tool for the exchange of information which is essentially carried out in three different ways:

- ✓ "Assistance on request", consisting of the activation of specific fiscal checks and assessments of a fiscal nature at the request of a Member State of theEU against another Member State, aimed at assessing correct compliance with the tax legislation in force in the Member State of the requesting administration in relation to verifications or investigations carried out or still in progress;
- ✓ "Automatic exchange", an instrument that does not require a specific request to be sent, but takes place, in a systematic way, on the basis of a prior agreement between the administrations of two Member States, relating to certain areas or transaction specifications;
- ✓ "Spontaneous exchange", which involves the exchange of information between Member States without a specific request for cooperation or a prior agreement to that effect and takes place when the tax authority of a Member State considers that it has information, not subject to automatic exchange, which could prove useful to another Member State.

Therefore, the last two types are applied by the Community legislator to specific conditions with the aim of mitigating the effect that this instrument could have on the sovereignty of the Member States in their exercise of administrative action, which, as mentioned, still falls within the exclusive competence of each Member State. To this end, the rule provides for the two types of exchange of information that do not require a prior request for activation by the requesting authority only in situations where:

i) taxation took place in the Member State of destination and the information provided by the Member State of origin is necessary for the effectiveness of the control system of the Member State of destination;
ii) a Member State has reason to believe that VAT legislation has been, or may have been, violated in the other Member State;
iii) there is a risk of loss of tax revenue in the other Member States.

At the same time, the tax authorities of the Member States may also use all the data from the VIES system and from Intrastat in the course of their investigation. EU regulatory legislation also provides for the possibility for national tax authorities to send their own officials to another Member State for the purpose of collaboration with the local tax authorities, in order to participate directly in the verification activity which, as in the case of intra-EU fraud , crosses national borders and requires administrative action in two or more EU countries. In addition there is the possibility of so-called simultaneous controls, a cooperation instrument distinct from the first one, which involves a simultaneous control by two or more Member States, carried out in their respective territories, against taxable persons of common or complementary interest. This method can be activated on condition that it appears more effective than a check carried out by a single Member State. In this case, the latter may make the proposal for a simultaneous control to the other Member States potentially involved, who must give their consent or reasoned refusal no later than one month following receipt of such a request.

4. The state of harmonisation in the VAT area

4.1. Review of current initiatives

The process of harmonisation in the EU in the area of indirect taxation has been driven by the need to ensure the free movement of goods and services and the creation of the single market. The introduction of a community VAT regulation dates back to 1967. With the first VAT Directives (Directives 67/227 / EEC and 67/228 / EEC) the foundations for a common system on value added tax were laid down. The sixth VAT Directive (77/388 / EEC) harmonised the basis of assessment of the tax, providing a more comprehensive framework for the harmonization of VAT. The current regime is governed by the recast VAT Directive 2006/112 / EC, subsequently amended by Directive 2008/117 / EC. Under the current VAT system Member States must apply a rate of 15% or more and have the option of applying one or two reduced rates, no lower than 5%, to certain specified products or services.

In its Communication entitled "VAT Action Plan. Towards a single EU VAT area – Time to decide "of 7 April 2016", the European Commission highlighted the need to proceed with an overall modernisation of the value added tax system, currently based on a system introduced in 1993 which is **somewhat fragmented and complex, as well as vulnerable to fraud**, especially with regard to cross-border transactions for which an exempt transfer and taxable acquisition mechanism is envisaged. The objective of the reform is to create a **definitive VAT system**, based on the principle of taxation in the country of destination of the goods and the application of which is ordinarily delegated not to the recipient but to the supplier of the goods themselves.[5] Basically, an extension to the sales of goods of the system in force since 2015 in the field of the provision of services that are taxed in the place where the service is provided.

With this draft reform, the EU Commission intended to ensure consistent treatment of domestic and intra-EU transfers, giving unity to cross-border transactions and eliminating the double qualification of the intra-EU transaction as an exempt transfer and taxable purchase, thus re-establishing the fractionated payment mechanism for VAT in the context of cross-border trade, as is the case at national level.[6] In this process of implementing the definitive VAT system, two intermediate stages deserve to be highlighted.

The first important step was taken with the Communication of the EU Commission of 4 October 2017,[7] in which the instruments of the definitive VAT system were identified with reference to intra-EU sales of goods between taxable persons (i.e. cross-border of "business-to-business" or "B2B" goods) and they were introduced:

- ✓ the concept of "certified taxable person" or "CTP")[8];
- ✓ a simplification of the "**call-off stock**" regime and "chain" transactions;

[5] European Commission, Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the future of VAT. Towards a simpler, more robust and efficient VAT system adapted to the single market, 6.12.2011, COM (2011) 851 final, p. 5.

[6] European Commission, Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the future of VAT. Towards a simpler, more robust and efficient VAT system adapted to the single market, 6.12.2011, COM (2011) 851 final, p. 10.

[7] European Commission, Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on the follow-up to the VAT action plan. Towards a single European VAT area - Time to act, 4.10.2017, COM (2017) 566 final.

[8] European Commission, Proposal for a Council Regulation amending Regulation (EU) no. 904/2010 as regards certified taxable persons, 4.10.2017, COM (2017) 567 final.

- ✓ the harmonization and simplification of the rules on proof of transport in intra-EU supplies of goods;
- ✓ recognition of the purchaser's VAT identification number as a substantial requirement for the purposes of applying the VAT exemption.

Subsequently, at the 2 October 2018 session of the "Ecofin" Council, a series of proposals for amendments to EU VAT regulations were discussed and adopted, which, pending entry into force of the new VAT system for taxation in the country of destination, included "quick fixes" aimed at resolving problems encountered with the novations described above, as well as measures aimed at introducing a "generalised reverse charge mechanism" or "GRCM" for domestic transactions above a certain threshold,[9] allowing the Member States most seriously affected by VAT fraud to temporarily apply a generalised reversal of the VAT payable.[10] The "quick fixes", which entered into force across the EU territory from January 1, 2020, are made up of four measures aimed at improving the current VAT regulatory framework for intra-EU trade in goods between companies and in particular:[11]

1. regulation of so-called “call-off stock” arrangements;
2. changes to the regulation of so-called “chain” transactions;
3. attribution of substantial value to the VAT identification number of the transferee in intra-EU trade of goods between businesses;
4. changes to the rules on proof of the transport of goods in the context of intra-EU supplies.

The first measure concerned the functioning of so-called “call-off stock” arrangements. In particular, the introduction of article 17-bis and other related provisions within Directive 2006/112, allowed goods to be sent from one Member State to another from transferor to the transferee for their supply at a later stage so that the latter can receive them when needed, applying the provisions for intra-EU sales with suspended effect, making the intra-EU acquisition only at the moment of the “Call-off” of the goods by the transferee. Therefore, the solution adopted provides that the intra-EU supply is exempt and that the intra-EU acquisition, taxed in the Member State where the warehouse is located, does not take place at the time of dispatch or transport, but only when the transferee makes the "call" for the goods. This also means that the supplier doesn’t necessarily have to identify himself in the EU country of delivery of the goods.

The second measure of the so-called “quick fixes” concerns so-called “chain” transactions, i.e. the successive transfers of goods where only one intra-EU transport takes place. In particular, with the introduction of article 36-bis within Directive 2006/112 [21], a definition of "intermediary operator" was introduced, understood as a supplier in the chain, other than the first supplier, who dispatches the goods or has them dispatched by a third party on their behalf. In view of this, it is provided that

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9 European Commission, Proposal for a Council Directive amending Directive 2006/112 / EC on the common system of value added tax with regard to the temporary application of a generalized reverse charge mechanism to the supply of goods and services to the above a certain threshold, 21.12.2016, COM (2016) 811 final.

10 "Economy and Finance" Council, 2 October 2018, https://www.consilium.europa.eu/it/meetings/ecofin/2018/10/02/, which summarizes the resolutions taken in the context of the "Ecofin" summit of 28 September 2018.

11 See Council Directive (EU) 2018/1910 of 4 December 2018 amending Directive 2006/112 / EC as regards the harmonization and simplification of certain rules in the trade tax system of value added tax between Member States, OJ L 311 of 7.12.2018, pp. 3-7; Council Implementing Regulation (EU) 2018/1912 of 4 December 2018 amending Regulation (EU) No. 282/2011 as regards certain exemptions related to intra-community transactions, OJ L 311 of 7.12.2018, pp. 10-12; Council Regulation (EU) 2018/1909 of 4 December 2018 amending Regulation (EU) no. 904/2010 regarding the exchange of information for the purpose of monitoring the correct application of the call-off stock regime, OJ L 311 of 7.12.2018, pp. 1–2. Finally, it should be noted that, compared to what was initially proposed (see European Commission (2017), op. Cit., Pp. 8-10), the application of the "quick fixes" is independent of the status of "certified taxable person".

if the same goods are subsequently sold and dispatched, from one Member State to another, directly by the first supplier to the final consumer in the chain, the dispatch is attributable exclusively to the sale made to the intermediary operator (i.e. the person who takes care of the transport, either independently or by commissioning a third party). It follows that, regardless of the number of transfers making up the chain, only one will be an exempt intra-EU supply – namely that made to the person who took care of the transport.

The third measure of the "quick fixes" concerns the attribution of a substantial value to the customer's VAT identification number in the context of intra-EU trade in goods. In particular, the need to ensure greater control by the tax authorities of the Member States in the context of intra-EU trade in goods has nevertheless led to its inclusion in article 138 of Directive 112/2006 as a substantive condition for the application of the exemption for intra-EU transfers, that the transferee is identified for VAT purposes in a Member State other than the one in which the dispatch or transport of goods begins, and also that the transferee has communicated their VAT identification number to the supplier.

The last measure of the "quick fixes" concerns to the regime of transport tests in the context of intra-EU trade in goods, which is an essential condition for the application of the VAT exemption in relation to intra-EU transfers. In particular, Article 45-bis of Regulation 282/2011 [12] provides for the condition that the goods have been dispatched or transported by the supplier (or on their behalf) outside the territory of a Member State. Alternatively, proof of transport is considered to have been achieved if the supplier is in possession of any of the evidence duly outlined by law, in combination with any of the non-contradictory evidence also identified by law.

4.2. Post-Covid perspective of VAT taxation

The new regulatory and procedural guidance on certain aspects of VAT contained in the EU package for fair and simple taxation will clearly bring significant changes to the way businesses, especially large companies, account for VAT in the EU. It is in this context that the European Commission in the summer of 2020, right in the middle of the Covid-19 pandemic, set out its package for fair and simple taxation which includes three elements:

- ✓ an action plan for fair and simple taxation to support the recovery of the various economies;
- ✓ revision of the Administrative Cooperation Directive (the future DAC7);
- ✓ guidelines of the communication on tax good governance in the EU.

Covid-19 has already had an impact on VAT, we only have to think of the e-commerce directive which has been delayed for six months and postponed to 1 July 2021. And in any case, its implementation will mean that considerably more businesses will have to account for VAT across the EU and therefore a new accounting mechanism will be needed to minimise the administrative burden. This should be achieved by extending the existing Mini One Stop Shop (MOSS) which currently applies to B2C intra-EU supplies of telecommunications, broadcasting and services provided electronically into a larger One Stop Shop (OSS).

There are 25 planned initiatives that will be implemented in the period up to 2024 to make taxation fairer, simpler and in line with modern technologies which can be grouped as follows:

- ✓ simplification, that is, reducing obstacles and minimising the administrative burden for businesses in the single market in order to improve

[12] Implementing Regulation (EU) No. 282/2011 of the Council, of 15 March 2011, containing provisions for the application of Directive 2006/112 / EC on the common system of value added tax, OJ L 77 of 23.3.2011, pp. 1–22.

competitiveness and contribute to economic growth;
- ✓ compliance, to help tax authorities collect tax due by making better use of existing data and sharing new data more efficiently, in a way that improves tax enforcement and helps fight tax fraud and evasion more effectively;
- ✓ Taxpayers' rights, to be achieved by raising awareness under EU law, simplifying their obligations, and facilitating compliance.

Revision of the Administrative Cooperation Directive: the new DAC7

Against this background, and in an increasingly digital world where intra-EU e-commerce continues to grow rapidly, administrative cooperation between Member States is key to ensuring that businesses account for VAT in the right place.

Provisions already exist, but these are not applied uniformly by Member States and requirements vary across the EU. Harmonisation is insufficient. Digital platforms are increasingly being used to sell goods and as a result are being targeted so that tax authorities can collect taxes efficiently. This tax strategy is applied in the UK and also to non-EU sellers. It's a global trend. In practice, instead of trying to collect taxes from individual sellers, the platform takes on the fiscal responsibility by law to report to the authorities the trades, volumes and cash flows made. This is an obvious consequence of the fact that platforms collect huge amounts of data about their sellers which can provide the tax authorities with crucial information on the amount of VAT due.

Platforms will have to report to a single Member State and the proposed implementation date is January 1, 2022. The new DAC7 directive is taking shape based on these assumptions, accelerating a revolution that could reduce the profitability of current digital platforms to the advantage of new forms and ways of exchange.

The "reverse charge" mechanism

In order to plug some "flaws" in the current VAT system, a generalised "reverse charge" mechanism was introduced in Article 199-quater of Directive 112/2006.[13]

In particular, each Member State has the possibility of obtaining authorisation from the EU Commission to temporarily apply (until 30 June 2022) a generalised reverse charge mechanism with a certain threshold per transaction (set at Euro 17,500), notwithstanding the fractionated payment mechanism that ordinarily characterises the application of VAT, in order to combat carousel fraud in those Member States where it is particularly widespread.

The "reverse charge" prevents the practice (typical of carousel fraud) where some operators do not pay the output VAT due on sales of goods and / or services performed (a tax which is, however, collected from the buyer), while those who purchase the goods and / or services remain in possession of a valid invoice that entitles them to deduct the input VAT.

Each Member State is authorised to adopt a generalised reverse charge mechanism subject to the following requirements: demonstration that other control measures are insufficient to stem fraud; imposition of electronic reporting obligations on all taxable persons supplying and / or receiving goods and services; the estimated revenue from the expected collection following the introduction of the mechanism exceeds the estimated overall additional burden for businesses and tax

[13] Council Directive (EU) 2018/2057 of 20 December 2018 amending Directive 2006/112 / EC on the common system of value added tax with regard to the temporary application of a generalized reverse charge mechanism to the supply of goods and to the provision of services above a certain threshold, OJ L 329 of 27.12.2018, pp. 3–7.

authorities by at least 25%; and the introduction of the mechanism must not lead to an increase in compliance costs.

The "certified taxable person"

As part of the comprehensive reform plan aimed at introducing the new definitive VAT system for intra-EU trade between businesses, based on the principle of taxation in the Member State of destination of the goods, a key role should also be reserved for the economic operator who qualifies as a "certified taxable person" (or "CTP").

In particular, according to the proposal formulated in this regard by the EU Commission,[14] it is envisaged that economic operators who meet the following requirements should be granted a status aimed at certifying that a given business can, on the whole, be considered a reliable taxpayer:

1. absence of serious or repeated violations of customs and tax legislation, as well as absence of serious crimes in relation to the economic activity carried out;
2. effective control of operations and flows of goods through a management system that allows adequate fiscal controls;
3. proven financial solvency.

Taxable persons who cannot deduct VAT on purchases, those who benefit from the exemption regime for small businesses or the common flat-rate regime for agricultural producers, will not be able to adopt this status.

The status of "certified taxable person" will make it possible to derogate from the general rule that, in the context of intra-EU trade in goods, VAT is payable by the taxable person supplying the goods; in this case, in fact, if a certified taxable person intervenes as the transferee, the tax liability lies with the latter (i.e., the transferee and not the supplier), who will pay the VAT through the "reverse charge" mechanism ".

In summary, therefore, the supplier (in the context of an intra-EU transaction) will be required to apply the VAT of the country of destination even if they are not established or identified there, using the so-called "one stop Shop "or" OSS ". The application of the reverse charge in intra-EU transactions will be limited to those who have been given the status of "certified taxable person".

Also in the context of administrative cooperation between the tax authorities of the Member States, a monitoring mechanism has also been provided for the purposes of the correct application of the "call-off stock" regime, with particular regard to the VAT identification numbers of the suppliers and transferees who benefit from this simplification.

4.3. Summary of other recent proposals of the European Commission

Following up on the VAT action plan presented in 2016,[15] the European Commission has recently put forward (and in some cases approved) several legislative proposals aimed, overall, at modernising the VAT system to adapt it to the digital economy and the needs of SMEs, as well as addressing the VAT gap and improving administrative cooperation.

[14] See European Commission, Proposal for a Council Regulation amending Regulation (EU) no. 904/2010 as regards certified taxable persons, 4.10.2017, COM (2017) 567 final.

[15] European Commission, Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on an action plan on VAT Towards a single EU VAT area - Time to decide - Brussels, 7.4.2016 COM(2016) 148 final.

The main strategic objective in the area of VAT is to **move from the current transitional regime for the taxation of trade between Member States to a definitive regime which will be based on the principle of taxation in the Member State of destination**, which implies that goods traded cross-border are taxed in the country where they are consumed (the country of destination) and at the tax rate of the country of destination, rather than where they are produced (the country of origin). A legislative package has already been approved (Regulation 2018/1541, Regulation 2018/1912, and Directive 2018/1910) aimed at bringing "quick fixes" to the current VAT system containing, among other things, a series of new provisions on the concept of "certified taxable person" and the so-called "fundamental principles" of the definitive VAT system. On the other hand, the proposal for a directive (COM (2018) 329) on detailed technical measures for the operation of the definitive VAT system is still under negotiation.

Regarding the reform of VAT rates, on 18 January 2018 the European Commission presented a proposal for a directive to allow more flexibility for Member States in setting VAT rates with the standard minimum rate being maintained at 15% and enabling Member States to set two distinct reduced rates ranging from between 5% and the standard rate chosen by the Member State; one zero rate; and one rate set between 0% and the reduced rates. Member States would still be required to ensure that their weighted average VAT rate is at least 12% at all times.

Regarding VAT in e-commerce, a series of **measures have been approved to facilitate VAT compliance for e-commerce businesses** in the EU and allow consumers and businesses, in particular start-ups and SMEs , to buy and sell goods and services online more easily (Directive no. 2455/2017 - VAT Directive on electronic commerce), Regulation no. 2454/2017, Implementing Regulation 2459/2017, Directive 2018/1713; the last of these allows Member States to align the VAT rates set for digital publications, currently taxed at the standard rate in most Member States, with those of the more favourable regime in place for traditional print publications. Subsequently, in order to establish the detailed rules necessary to ensure the functioning of the new VAT rules for electronic commerce following the changes introduced by the VAT directive on electronic commerce, which would enter into force in January 2021, Directive (EU) 2019/1995 and Implementing Regulation (EU) 2019/2026 were approved in November 2019 and Commission Implementing Regulation (EU) 2020/194 was approved in February 2020.

In December 2018, the European Commission presented two legislative proposals on the transmission and exchange of VAT relevant payment data (Regulation (EU) 2020/283 and Directive (EU) 2020/284). They have been given final approval and are aimed at **facilitating the detection of tax fraud in cross-border e-commerce transactions**. The new rules allow, in particular, the harmonised collection by Member States of documentation made available electronically by payment service providers, such as banks. In addition, a new central electronic system has been set up for storing payment information and for the further processing of this information by national anti-fraud officers.

A further simplification of the VAT rules applicable to small businesses has recently been approved (Directive (EU) 2020/285). The new rules aim, in particular, to **reduce administrative burdens and compliance costs for small businesses** and help create a tax environment that contributes to the growth of small businesses and improve efficiency of their cross-border trade. The new VAT regime for SMEs will apply from 1 January 2025.

In addition, Directive 2018/2057 allows the Member States most seriously affected by VAT fraud to temporarily apply a generalised reverse charge mechanism to supplies of goods and services above a certain threshold. Furthermore, Directive 2018/1695, amending Directive 2006/112/EC, was approved with regard to the period of application of the optional reverse charge mechanism to the sale of certain goods and provision of certain services susceptible to fraud and the quick reaction mechanism against VAT fraud.

5. Proposals aimed at reducing the VAT gap

This study places particular focus on the coordination of the European tax system related to VAT and its aim to improve data exchange and synergies between the various tax authorities of the Member States, as well as on the simplification and digitalisation of obligations in order to reduce compliance costs and reduce the VAT gap.In view of the prospect of further modernisation in the Member States and in order to encourage voluntary compliance, we analyse and propose solutions based on making available to European economic operators and taxpayers, **services for the generation, transmission, receipt and storage of electronic invoices**, including between private individuals, and for the electronic management and transmission in general of any VAT transactions.As regards the activities aimed at preventing and tackling tax evasion and avoidance, the same proposals are aimed at strengthening the activities to encourage the spontaneous emergence of taxable income through the further strengthening of the instruments of enhanced cooperation with the tax authorities (cooperative compliance and advance agreements with companies that operate internationally).

In terms of fighting tax evasion, these solutions aim to **optimise the analysis activities aimed at combating tax evasion on taxable income**, for the territorial mapping of cases of tax evasion and for the drawing up of the respective action plans, also in an integrated manner. Among these proposals is the strengthening of tools for preventing and tackling tax crimes, through a control policy based on computerised risk management to improve its effectiveness through the efficient use of databases, the interoperability of which must be intensified. In this way, the priority is to combat the problem of fraud, including those involving the improper use of tax refunds and offsets through the use of non-existent or unlawful tax credits.Finally, these solutions cannot ignore an intensification of operational synergies between the national European and international public authorities, improving the exchange of information and the instruments of international cooperation, with a focus on an incisive fight against carousel fraud in the field of intra-EU VAT.

5.1. Data management proposals

5.1.1. Towards the concept of a European VAT number

As has already been illustrated in the preceding paragraphs, EU VAT fraud seemed to have increased with the abolition of customs between European countries. Now that this type of physical control has disappeared, **it is necessary to re-establish a monitoring system that does not take into account the borders of each individual Member State but which extends over the entire territory of the EU**. Therefore, in order to identify useful solutions for reducing the VAT Gap, the starting point must be an analysis of the possibility of moving in a "concrete" way towards the concept of a **European VAT number**, which is already provided for in some respects within the VAT Directive but has not yet fully implemented in the legal systems of the individual Member States.

Currently in the EU, each Member State has its own internal VAT legislation (for application, assessment, and collection) despite this tax being exclusively within EU competence, especially from the point of view of revenue.[16] If we want to draw a hypothetical parallel, it is as if in France, Brittany had its own autonomous legislation compared to Normandy; or in Germany Bavaria had its own autonomous legislation compared to Saxony.The importance of standardising and centralising the processing of VAT data is therefore quite clear. As it is well known, in each Member State it is possible

[16] The general VAT legislation is uniform throughout the EU, but the operating and collection legislation is the responsibility of each individual country. Therefore, local distortions are created due to these internal regulatory differences and the application of the standard.

for any economic operator to obtain recognition of their VAT number at European level by registering with VIES. More specifically, pursuant to Article 215 of the VAT Directive, when an economic operator is set up or starts its activities it is assigned a VAT number by its Member State consisting of two fields (as is the case for those who register with VIES):

European VAT Code = Country Code + National VAT Code

The economic and commercial transactions of these economic operators then flow into the European databases (and those of each Member State) in order to cross-reference the data of taxpayers and authorities for the purpose of preventing fraud, as well as for statistical reasons relating to Intrastat.The necessary transition to a definitive evolution of the use of this tool consists in **abandoning the current system of VAT taxpayers and moving them to a definitively European context**, at least from the point of view of the processing of data concerning them. It is necessary to move to the EU data platforms not only the data of those that carry out intra-EU transactions but also those who are not in the EU, there should be no tax positions related to an EU tax managed by each Member State. Bearing in mind that VAT revenue belongs to the EU, **it is necessary to channel the data flows of transactions taking place in the EU into a single digitalised platform**. This platform, which already has valuable tools such as VIES, MOSS, OSS, and TNA , will be the main source of data that modern artificial intelligence technologies will process in order to monitor and maximise tax revenues.

From a regulatory point of view, the required transfer of "sovereignty" (in terms of data transfer and verification and control) to each Member State could be achieved by using the current provisions of Article 395 of the VAT Directive according to which "The Council, acting unanimously on a proposal from the Commission, may authorise any Member State to introduce special measures for derogation from this Directive, in order to simplify the procedure for charging the tax or to prevent certain types of tax evasion or avoidance. "

Therefore, the object of the regulatory intervention should be to require Member States to adopt internally rules obliging the assignment of VAT numbers in the format referred to in Article 215 of the Directive and, at the same time, to authorise the transfer and processing of all VAT data relating to financial transactions carried out. It is clear that such a high level of digitalisation of information cannot be achieved without a compulsory move towards electronic invoicing, a tool that will be discussed in the following paragraphs.

5.1.2. Introduction of the obligation of the European electronic invoice

The Covid19 pandemic has highlighted the importance of digital technologies in ensuring the operational continuity of businesses and families and underlined the difference between organisations which already had digital processes in place, who were easily able to create the conditions for remote work, and those lagging behind in terms of digitalisation and who have encountered more difficulties during the crisis.**The process of digitalisation of tax administration in Europe must absolutely be accelerated if we want to move in the direction of combating fraud, reducing the VAT gap, and lowering compliance costs.** Although it is true that from 2019 all European central public administrations (and from 20 April 2020 also all local ones) will have to be able to receive and process invoices in the European format (XML UBL 2.1 and CII 16B), looking at the introduction of obligations in relation to sending invoices that have been introduced by the governments of the various countries, the European picture is still very fragmented. In Europe, a principle must be affirmed: **making electronic invoicing obligatory, among other things, acts as a means of tackling tax evasion.** It is precisely for this reason that among the countries pushing hard for its implementation we find those with the highest rates of tax evasion.

This issue is naturally of high relevance for all MS, but some face a bigger challenge in that respect and are therefore potentially more inclined towards a rapid implementation. As recent data have been available in Italy, the particular situation of this MS might offer some interesting clues to get a better understanding of why any **future initiatives must be based on the introduction of a generalised obligation for all economic operators to use electronic invoicing.**

In Italy, driven by the entry into force in January 2019 of the obligation for private businesses to use electronic invoicing, in 2019, 2.09 billion electronic invoices passed through the "Interchange System" (SdI), sent by 3.9 million companies which is 78% of the total. Of these, 55% related to transactions between private businesses (B2B), 44% to transactions between businesses and final consumers (B2C), and 1% to transactions with Public Authorities (B2G). Large enterprises sent 57% of the invoices, SMEs 23%, and micro-enterprises and sole proprietorships the remaining 20%. But the fact that should lead us to reflect even more is that in Italy, after one year of electronic invoicing, the first benefits are beginning to be seen in the fight against tax evasion: from January to November 2019, fraudulent VAT credits amounting to €945 million out of a total of €104.7 billion in payments were identified and blocked. In the same period, payments increased by 3.6% compared to 2018, with the increase attributable to electronic invoicing estimated at between € 0.9 billion and €1.4 billion between January and June 2019 .

The same survey showed that the benefits of electronic invoicing reported by companies concern both the payments cycle, with time and cost savings, error reduction, improvement of the quality of information and processes, and the receivables cycle, with benefits in terms of efficiency (less costs related to consumables and less time spent carrying out activities). In Europe, therefore, a change of pace is necessary by introducing a widespread obligation in compliance with common technical specifications in all Member States.[17] The Directive has practically led to the development of a semantic model for invoice data thus ensuring interoperability between invoices from different countries with the ultimate aim of automating the processing of the data contained in the invoice. As far as the formats of electronic invoices are concerned, there are essentially two most common situations in Europe, although there are still situations in which a huge variety of formats used coexist:

- ✓ the use of the European format (XML UBL or CII) required by the Directive as the only standard for all exchanges within the country
- ✓ the coexistence of European format and national standard format.

For a better use of the data generated by electronic invoicing, **it is necessary to standardise the use of a format**, specifically the XML UBL version, which allows the use of over 60 business documents, supporting the entire order cycle and facilitating activities such as, for example, reconciliations. The standard network architecture in Europe that fully captures these benefits of using the European format is provided by the non-profit association Open PEPPOL (Pan-European Public Procurement On-Line), which has defined the operating rules of the network infrastructure for transmission and specifications for document exchange. Even **at the level of transmission protocols, it is necessary to standardise the technology**, since here too it is possible to identify different transmission models at a European level, based on the choices made by individual countries:

1. Centralised government platform, in which the entire country's electronic invoicing system relies on a central hub provided by the government or by national

[17] Directive 2014/55 / EU "Electronic invoicing in public procurement" introduced, from April 18, 2019 for central public bodies and from April 18, 2020 for local public bodies, the obligation to be able to receive electronic invoices in XML UBL 2.1 and CII formats 16B compliant with the European technical standard EN 16931.

bodies in charge of managing the electronic invoicing process.

2. Four corner model, the reference model of the PEPPOL project, in which the key players in the system are the supplier, the Public Administration and their respective providers.
3. Hybrid, in which the previous solutions coexist.
4. Direct, where there is no defined interchange system and where most electronic invoicing transactions take place directly between public entities and economic operators following bilateral agreements.

If the proposed objective of introducing a generalised obligation in all EU countries to use electronic invoicing using a single standard digital format and adopting a single standard transmission protocol is achieved, it will finally be possible to achieve uniformity and completeness of sensitive data for monitoring, assessment and collection activities that is of fundamental importance for the subsequent development of procedures based on "artificial intelligence".

Artificial intelligence promises to revolutionise taxation activities i, so much so that the European Commission has earmarked a commitment in the Next Generation EU plan dedicated to digital investments of about one fifth of the entire approved budget. The possible applications of artificial intelligence, in theory, are vast: from being able to pick out taxpayers suspected of tax evasion to the execution of formal or paper controls, to the comparison of financial data for assessment purposes. In some countries information technology is going even further, writing and justifying the grounds for verification and assessment, applying conditions or determining penalties.

In France, the monitoring of social networks has recently been initiated to identify possible tax evaders following a decree published on 13 February 2021, under which the terms for the application of the rules provided for by the 2020 Finance Law were laid out, setting up a system for monitoring social networks by the French tax authorities. The new decree authorises the French tax authorities to use social media to check the consistency between the tax returns submitted by individual taxpayers and their portrayed real standard of living.

The information will be collected and analysed using a "machine learning algorithm" to manage and analyse the data while respecting privacy laws. An experimental phase of at least three years is envisaged, to be further divided into two parts:

- ✓ the first dedicated to learning and design, during which web scraping techniques will be used, i.e. data retrieval through online platforms
- ✓ the second dedicated to exploitation of the data and its transformation into useful information for detecting any fraudulent activities.

As far as Italy is concerned, the European Commission has recently given the green light to the funding of the Italian Revenue Agency’s project on the data driven analysis of the risk of tax evasion including the digitalisation of VAT-relevant processes: the flow of data to "enhance risk analysis and control activities", but also to offer services that will simplify compliance. The data flow is that resulting from electronic invoicing and electronic payments. It is no coincidence, in fact, that the Italian government is aiming for final authorisation from the EU to extend the obligation to send electronic invoices between private individuals, both B2B and B2C, to the tax authorities: extending the authorisation from 31 December to the end of 2024, and perhaps including taxpayers under the flat-rate accounting regime for whom electronic invoicing is currently optional, except in dealings with the Public Authorities. With the successful implementation of analysis, search and classification algorithms, the aim is to enhance the value of the information assets available to the Italian tax authorities. A mine of information that includes data acquired directly by them, including 2 billion electronic invoices, 42 million annual tax returns, and 197 million payments.

The techniques of "machine learning" and "deep learning" are all the more effective the more extensive the database is, which is why **this study recommends moving away from paper-based invoicing in favour of mass digitalisation of compliance activities** to be encouraged above all through the widespread adoption of electronic invoicing. In addition to focusing on full interoperability between the data of the various administrations, the Recovery Plan mentions the fight against tax evasion, and in particular the omission of invoices. Instances of such “black market” transactions can also be found by analysing the trails left by tax evaders, such as the standard of living or relationships between businesses. Therefore, we must also **envisage using network science and a visual analysis of information** to bring to light the relationships between companies that are not immediately obvious through:

- ✓ the digitalisation of user services
- ✓ the enhancement of information assets
- ✓ digital interconnection with external players
- ✓ the digital workplace, the digitalisation of processes and work tools
- ✓ cybersecurity
- ✓ data protection
- ✓ integration with the overall digitalisation initiatives of the Public Administration

This will also allow increasingly targeted control activities to take place thanks to databases and IT tools. Autonomous risk analysis will be carried out through centrally designed and managed IT applications in use by the authorities of the individual countries, useful for intercepting instances of tax evasion or fraud in those territories, thus fine tuning control activities and subsequent investigations. Therefore, **it is necessary to plan and implement an overall strategy for the development of "big data" analysis techniques by providing for appropriate infrastructure investments** to make the access and management of information flows even more useful and timely, as well as using increasingly sophisticated software. In particular, the activity of each individual country (albeit with different methods and intensity that take into account their own level of tax evasion and propensity to fraud) should be focused on the **enhancement of information assets** which can be further strengthened by an EU-wide roll-out of electronic invoicing, through the use of the following innovative solutions:

- ✓ **"Big Data"** analysis for central functions: a technological platform ("data lake") to enable easy analysis of different types of data, structured and unstructured, historical and current, which opens up new analysis scenarios advanced data analysis for the territorial authorities of the individual countries
- ✓ **"Network Analysis"** to provide local authorities with innovative technological solutions for risk analysis

In an immediately subsequent phase, through the use of artificial intelligence, the evaluation processes for assessing the risk of non-compliance will have to be implemented, introducing, testing and using innovative techniques of network analysis, machine learning and data visualisation to create a support system for the identification processes of those at high risk of tax evasion. The use of "automated" procedures cannot be a reason to circumvent the principles governing the conduct of administrative activity in the EU and this also applies to taxation. Also, and especially in the area of privacy, it must be remembered that according to settled case-law of the Court of Justice, the principle of proportionality requires that acts of EU institutions be appropriate for attaining the legitimate objectives pursued by the legislation in question and do not exceed the limits of what is appropriate and necessary in order to achieve those objectives.[18] Therefore, clear and precise rules governing the scope and application of measures and imposing minimum safeguards should always be provided for, so that the persons whose data is processed have sufficient guarantees to protect their personal data against the risk of abuse, as well as against any unlawful access and use of such data.[19]

In the meantime, Transaction Network Analysis (TNA), is not without its own risks and limitations of use. While TNA does allow active collaboration between Member States, the introduction of a new and additional tool for transmitting tax data from one Member State to another and the storage of such data in databases immediately accessible to the various tax authorities, raises the issue of the protection afforded to the personal data of the taxpayer. The issue is an extremely delicate one because it requires a difficult balancing act between, on the one hand, the legitimate and necessary provision of mechanisms to prevent and combat practices capable of undermining both European financial stability and the various tax powers of the EU and of the individual Member States and, on the other hand, the controlled use of taxpayers' data, which must be subject to the organisation of all the managerial and technological measures necessary to guarantee its security.

If we proceed along these lines, therefore, further doubts arise in relation to the use that tax authorities will make of the information received and transmitted to other Member States. More precisely, it will be necessary to carefully examine the value to be attributed to the alerts that the Tax Authorities will receive and send to each other. In other words, it will be necessary that the sharing of relevant information always and unconditionally be accompanied by adequate protection of the taxpayer, whether this takes the form of the possibility to appeal to a national court or, more simply, the possibility to challenge the information that has been collected. In conclusion, TNA is undoubtedly a potentially important control tool for both monitoring and preventing VAT fraud. However, **software for the exchange of tax-relevant information between Member States is not, and cannot be expected to become, a tool that solves the issues and problems for which it was introduced, since a greater convergence of intentions on the part of all Member States is essential, not only in terms of computerised control and data sharing, but also at a regulatory level and, why not, at a judicial level**. In this last regard, the establishment, pursuant to Article 86 TFEU, of the "European Public Prosecutor's Office" as the body empowered both to identify, prosecute and bring to trial, where appropriate in liaison with Europol, the perpetrators of crimes against the EU's financial interests, should be welcomed if the EU is to prosecute such crimes before the competent courts of the Member States, within the limits set by the fundamental EU principles of subsidiarity and proportionality.

The move away from non-digital systems, including those used for invoicing, is an irreversible process and even in the event of a voluntary change which doesn't happen immediately, artificial intelligence will have no problem extracting the same information from non-digital systems that it could extract from digital systems. It is only a matter of time.

[18] to this effect, Afton Chemical, C-343/09, paragraph 45; Volker und Markus Schecke and Eifert, paragraph 74; Nelson and Others, C-581/10 and C-629/10, paragraph 71; Sky Österreich, C-283/11, paragraph 50, and Schaible, C-101/12, paragraph 29.

[19] v., by analogy, with regard to Article 8 of the ECHR, ECtHR, Liberty and others v. United Kingdom, no. 58243/00, §§ 62 and 63, of 1 July 2008; Rotaru c. Romania, cit., §§ 57 to 59, as well as S and Marper v. The United Kingdom, cit., § 99.

5.2. Extension of the "Reverse Charge" and "Split Payment" system

The **"reverse charge"** mechanism [20] is a special method of applying VAT which allows the reverse charge of the VAT to be passed on directly to the recipient of the supply of goods or services, rather than to the supplier. The "reverse charge" mechanism was introduced into EU legislation with the implementation of the provisions of Directive 98/80 / EC of the Council of 12 October 1998 on the VAT regime applicable to transactions concerning gold. Usually, in a transaction between two parties for VAT purposes, the supplier applies the rate on the invoice by charging the payment to the customer and then paying the amount to the State. However, this procedure leaves room and opportunity for tax evasion by the commissioned parties who withhold the amount of tax. Therefore, as a rule, it is the supplier who issues the invoice and charges the VAT, but this is not the case in the special cases of reverse charge where it is the buyer who has to issue a self-invoice in order to be recorded in the VAT register on both the invoices issued and the purchases. Basically, the reverse charge is a departure from the normal VAT payment system and requires the customer to pay VAT directly instead of the supplier.

The usefulness of the reverse charge mechanism for the purposes of preventing tax fraud has already been highlighted in the above-mentioned Directive 98/80 / EC and, in fact, in the context of domestic transactions, the **reverse charge mechanism is still used as a tool to combat fraud**. This is because, through its use, the VAT on the sale of goods or provision of services is not materially paid by the buyer and the transaction is, therefore, rendered completely neutral from an accounting point of view. In recent years, a selective application of the reverse charge has been adopted, aimed at affecting only those sectors where evasion lurks, without penalising the generality of businesses through an increased administrative burden but it is clear that **a more widespread use of the "reverse charge" could ensure significant recovery in terms of reducing the VAT Gap**. In fact, by transferring the task of paying VAT to the recipient, the Treasury has a greater possibility of controlling VAT obligations.

As regards the compatibility of the "reverse charge" system with the principle of "VAT neutrality", it is a well-established principle that the right to deduction, which guarantees tax neutrality, must be granted where the substantive requirements are met and where, also, certain formal obligations have been violated, unless this has the effect of preventing proof that the substantive requirements have been met. In this sense, the Court of Justice of the EU, with the ECOTRADE (EU: C: 2008: 267) and IDEXX (EU: C-590/13 of 11 December 2014) judgments, through which the following principles were affirmed that, as a result of the application of the self-assessment regime established by Article 21, paragraph 1, letter d), of the Sixth Council Directive 77/388 / EEC, no payment of VAT arises between the seller and the buyer of the goods, where the latter is liable for the input tax on the purchase, while at the same time being able, in principle, to deduct the same tax, so that nothing is due to the tax authorities. It follows from this that the aforementioned self-assessment regime allows Member States to lay down the formalities relating to the detailed rules for exercising the right to deduct; however, such measures may not go beyond what is necessary to achieve those objectives and must never call into question the neutrality of VAT. Ultimately, the principle established on several occasions by the Court of Justice of theEU in relation to the reverse charge mechanism is that violations of formal obligations cannot in themselves exclude the taxpayer's right to deduct, otherwise the principle of neutrality of the tax would be breached.Therefore, where such taxpayer has no limitation on deduction, the application of the reverse charge mechanism is neutral for tax purposes (with no liability for tax on the part of the same), since the VAT payable is offset against the input VAT. Indeed, the common VAT system thus guarantees tax neutrality for all economic activities, regardless of the purpose or results of those activities, provided that they are,

[20] (also commonly known as "tax shift" or "self-assessment").

in principle, subject to VAT in themselves (in this sense, European Court of Justice, TOTH judgment, EU: C: 2012: 549, paragraph 25 and case law cited therein, and also FATORIE, C-424/12, EU: C: 2014: 50, paragraph 31, and case law cited therein).

Another important contribution to the reduction of the risk of VAT fraud (and therefore to the reduction of the VAT Gap) can certainly be given by the split payment, or the mechanism that provides that the VAT originating from the supply of goods or services by a private operator to a public administration (and also to other economic operators) instead of being included in the sales invoice issued by the first party, paid by the Public Administration and then paid by the supplier, is paid directly by the Public Administration to the tax authorities and separated from the invoice. The split payment mechanism was introduced as a result of the need to recover VAT that was being illegally withheld by suppliers. While it is true that "honest" taxpayers suffer a reduction in the VAT due and therefore find themselves with greater amounts of VAT credits and consequently with possible liquidity problems, it is equally true that each individual domestic tax system could consider the possibility of a wider offset of VAT credits against other taxes that each company has to pay or a simplification and acceleration of refund procedures.

As reported in the European study on the various split payment mechanisms,[21] in the Italian case there was a large increase in refunds and offsets in the 2015-2016 two-year period, of approximately 1.8 and 1.2 billion, respectively, attributable to split payment. Nonetheless, the estimated increase in VAT revenue in the two-year period 2015-2016 amounted to approximately 3.5 billion. This testifies to the fact that the VAT that was not paid by dishonest taxpayers before the split payment largely exceeds the higher VAT that honest taxpayers requested to be refunded following the split payment. The results of the cost-benefit analysis reveal that the split payment reduces the VAT Gap from 27% to 56% compared to the ordinary regime. Even more significant reductions are found in B2B, B2C and B2G transactions carried out using electronic payment methods.

Obviously, in order to achieve these results, both the private and public sectors have had to bear "compliance costs" for software and administrative procedures, and it is equally obvious that there is a need to reduce the latter further because accelerated refunds and offsets cannot alleviate the liquidity problems of all businesses. However, the rational answer lies in further improving refund procedures and possibly relaxing the constraints on horizontal offsetting for those – however easily traceable - who are subject to the split payment. One could object to the rational answer saying that, in any case, it is not realistic to think that the costs borne by honest taxpayers are completely nil but it is equally true, however, that collective interests must prevail over individual ones, as has been demonstrated in a historical phase such as the present one characterised by a collective battle against a pandemic.

5.3. Electronic money payment devices for the certification of receipts

VAT is a tax levied on the final consumer, so it is clear that any in-depth initiative on how to stem the problem of VAT evasion cannot ignore the need for an accurate and timely mapping of the consumption of each citizen. For this reason, specific rules for the declaration of income for tax purposes have been introduced in various countries, aimed at bringing together real time data on the revenues of commercial enterprises and, therefore, on consumption for the competent authorities.

[21] Analysis of the impact of the split payment mechanism as an alternative VAT collection method Final Report December 2017.

The European Commission launched a specific consultation (which ended on 2 June 2021) on administrative cooperation between national tax authorities in the area of cryptocurrencies and electronic money, in order to curb fraud and tax evasion. The purpose of the consultation is to gather views on the future revision of the Administrative Cooperation Directive (DAC8) in new emerging sectors, providing information to identify taxpayers who are actively using new means of payment and investment. The review is part of the tax package in support of the Recovery plan presented by the EU Commission in July 2020. As a matter of fact, **studies show a clear negative correlation between the number of payments with electronic money and the size of the underground economy: as the number of electronic payments (or rather, "traceable" electronic payments) increases, the size of the underground economy decreases.**

In the international arena there has usually been a focus on disincentivising cash use: several countries have limits on its use. For example, in many countries (including Italy) there is a set cash payment limit, and several countries allow tax deductions or allowances of some expenses only if paid by traceable means (in Italy, for example, this is the case in relation to building renovation costs). It is interesting, however, to look at the experience of South Korea, a case covered by a World Bank Group report, where rather than limiting the use of cash, the use of electronic money has been encouraged.[22]

South Korea introduced a credit and debit card payment system in 1999 after repeated failures by the Korean government and tax administration to tackle tax evasion through deterrent measures. The government introduced the possibility of deducting a percentage of those expenses paid by electronic means from earned income, for an amount between a minimum and maximum threshold. Over the years the deduction percentage allowed has increased from 10% to 20%, even reaching 30% for debit cards. The data relating to these deductions is then reported in the annual tax return. This incentive has contributed to the transition from a predominantly cash-based economy to an electronic-based one and to date the country has one of the world's highest rates of electronic payments as a ratio to GDP. What’s more, with this incentive, South Korea has significantly reduced its underground economy within a relatively short period of time, and the net increase in tax revenues (i.e., the higher levels of taxes collected net of reduced taxes due to deductions) is estimated to be $1.3 billion generating an increase of more than 4% in personal income tax revenue.

A similar so called “Cashback” system has recently come into force in Italy which provides for the refund of a percentage of expenditure incurred by consumers if payments are made by electronic means. Obviously, statistics showing the ability of this measure to reduce tax evasion are not yet available, but the aim of increasing the supply of tax data to be fed into databases has certainly been met. Indeed, the South Korean case shows that **a success factor for such incentives is a regulatory framework and information system that allows tax authorities to collect data and analyse people’s financial transactions**. Without this capability, in fact, it would not be possible to incentivise better tax compliance for those collecting payments electronically. It can therefore be argued that electronic payment incentives modelled on the South Korea and Italian schemes could have a positive outcome across the European context.

Some perplexities may arise as this facility certainly affects sectors such as the retail trade and services rendered by the self-employed workers and professionals, but by its very nature it is unlikely to affect other tax evasion issues such as, for example, "black market" property leases.

Furthermore, tax incentives which, like the South Korean one, translate into lower income taxes are generally available on submission of a tax return, so the taxpayer usually benefits from them in the year following the one in which he makes the purchases. For this reason, in Italy it was preferred to

[22] "*Can Tax Incentives for Electronic Payments Reduce the Shadow Economy?*" – World Bank Group 2017.

instantly recognise a monetary refund on the amount of the purchase concluded, also in order to avoid leaving room for agreements to be made between customer and supplier that would nullify the principle of conflict of interests on which the facility is based: this is the typical case in which the supplier suggests that the customer pay in cash, applying a discount on the price, so that the customer receives the refund in real time, while the supplier will save on income tax and social security contributions. All tools based on a massive use of electronic means of payment cannot ignore the introduction of an obligation to adopt technical characteristics of revenue certification systems based on real-time transmission to the administrative authorities. Electronic invoicing meets this requirement, but similar technologies and tools must also be provided for the retail trade. A further simplification to this requirement could come from the introduction of the obligation to integrate a module of automatic connection to tax authorities in POS payment devices, so as to allow immediate transmission of the proceeds collected.

In conclusion, therefore, **a facilitation structured on the model illustrated with the corrective measures introduced by the Italian system and with the real-time tax communication of data relating to receipts, could be a very valid tool, although obviously not the only one, in contributing to the reduction of VAT Gap**. All this, however, doesn't take into account the spread of "crypto currencies", payment instruments that do not yet have widespread legal value but which are replacing official currencies in many contexts, thus fuelling the spread of non-traceable payments.

5.4. Limitation on circulation and offsetting of VAT credits

Tax crimes are a major concern as they have a negative impact on national revenues, hindering the implementation of growth-friendly policies. Across the EU they are a significant problem given the scale of tax evasion and the numerous variety of schemes adopted. In addition to consolidated and recurrent illicit schemes, **innovative forms of tax evasion are increasing**. These include complex schemes in which large financial flows are transferred to tax havens, understood to be territories with privileged taxation but, above all, opaque and uncooperative jurisdictions with favourable or lacking tax laws in relation to banking or corporate transparency, in order to hide capital of illicit origin, shield ownership structures and interrupt the traceability of financial flows.

In this context, especially in circumstances where there is a lack of liquidity,[23] the assignment of input VAT credits claimed from the tax authorities means that liquidity can be obtained in a shorter time than is necessary for the payment of the related refund. Such **assignments may therefore be subject to fraudulent conduct**, linked to the fictitious nature of the assigned credits and to the unlawful set off of the same against tax debts, social security contributions and premiums actually due by the assignee companies. In some cases, in order to evade tax controls, fictitious credits are transferred through the sale or transfer of companies or business units linked to them, which are mainly made up of tax credits. Sometimes, the fictitious credit is used to inject capital into newly established companies. Generally, the consideration for the assignment is considerably lower than the nominal value of the credit and payment is arranged in a manner that is particularly advantageous for the assignees. In practice there are also cases in which companies with fictitious tax credits take on the obligation to pay tax debts, social security contributions and premiums of other parties, in exchange for consideration, paying off the debts by offsetting those credits. From a subjective point of view, the assignor companies and third-party companies assuming the debt belong to a variety of sectors, while the assignee companies and original debtor companies operate in labour-intensive sectors, with high levels of tax and social security liabilities (such as, for example,

[23] When a company is in urgent need of liquidity, it is easy for it to resort to the creation of fictitious VAT credits to sell them or request a refund

logistics, freight transport, building cleaning and maintenance services, removals, construction and catering products, and travel agencies).

From a subjective point of view, the assignment of VAT credits essentially involves the following types of entities:

- ✓ recently established assignor and/or assignee companies and/or third-party companies assuming the debt, or companies that resume operations, even if only apparently, after a period of inactivity (for example companies which are late in filing financial statements relating to previous years);
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt with legal forms characterised by flexibility and simplicity, both in terms of requirements envisaged at the time of incorporation and from a structural or managerial point of view;
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt that have reported the start of business at registered offices provided by domiciliation service providers;
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt lacking real organisational structures, functional to the performance of an effective economic activity, due to inconsistency in of the number of employees, equipment, assets and premises (evident, for example, from the relevant balance sheet items);
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt with frequent changes in ownership and / or administrative structure, or of the registered office;
- ✓ companies that suddenly cease to exist, even shortly after their incorporation, and are put into liquidation, especially after having participated in contracts for the assignment of tax credits;
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt with legal representatives or shareholders who, due to their subjective profile and / or lack of adequate knowledge of the company, appear to be mere nominees
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt whose shareholders or directors have a dubious reputation due to criminal records (mostly related to tax or organised crime offences), are facing prejudicial events (such as protests or bankruptcies) or they have no assets or are untraceable;
- ✓ Companies participating in more than one assignment of tax credits as assignors or assignees;
- ✓ companies participating in more than one tax debt assumption transaction as third-party companies assuming the debt or as original debtor;
- ✓ underwriting companies that appear as jointly liable in several tax return payment proxies submitted for the offsetting of tax debts, social security contributions and premiums of other entities;
- ✓ same registered office and legal representatives of the companies involved in deeds of assignment of tax credits or in any subsequent operations for the assumption of tax debts;
- ✓ companies incorporated on the same day with notarial deeds with the same content, represented by the same company representatives, despite having their registered offices in different locations;
- ✓ assignor and/or assignee companies and/or third-party companies assuming the debt or original debtor companies that make use of professionals involved in disciplinary and / or criminal proceedings or consultancy firms, even recently established or lacking adequate technical skills, offering “full service assistance” in

relation to the stipulation of assignment or takeover contracts, including the procurement of counterparties and the execution of the instrumental obligations or obligations connected to the aforementioned contracts (endorsement of conformity and / or issue of certifications, where applicable);

- ✓ companies holding significant tax credits, which are inconsistent with the type of activity carried out, with the organisational structure and / or with the assets and / or income of the same;
- ✓ companies involved in the assignment of tax credits or the assumption of tax debts, whose VAT number is no longer valid or whose VAT number is not included in the register of persons authorised to carry out intra-EU transactions (VAT Information Exchange System - VIES).

From an analysis of the cases illustrated above, **VAT credits are to all extents and purposes cash and, therefore, their fraudulent creation is facilitated by the possibility of the possibility of circulating these credits** in order to turn them into real money, useful for paying for goods and services but also useful in that they can be collected in the form of refunds or used to pay off debts with the tax authorities. **The introduction of electronic invoicing throughout the EU would be a very effective obstacle to deter continuation of these crimes**, as paper companies would have to leave a digital trace of their movements which in many cases have so far remained on paper and therefore detectable only by direct human intervention. This measure, however, should be accompanied by a strengthening of the minimum subjective requirements that the tax credit holder must meet in order to be able to "market" their credit on the financial market. These requirements could include the creation of adequately sized insurance policies in favour of the tax authorities, accompanied by a strengthening of the penalty regime for administrative and criminal violations in relation to the matter.

5.5. The insufficiency of cooperation tools and national measures in the fight against VAT fraud

Even if there is a fairly comprehensive EU regulatory framework in the field of administrative cooperation, with directives and regulations offering national administrations and EU institutions various possibilities for the exchange of highly complex information, there are nevertheless a number of doubts as to how these cooperation methods actually work. The potential of these instruments is partially neutralised not only by the inconsistent and sectoral nature of the regulatory provisions themselves, but also by the tax secrecy found in the Member States. In other words, it is already anticipated that **in the absence of centralisation at EU level of the instruments for combating fraud, the fight against cross-border illicit practices could be inadequate and becomes a mere internal domestic matter**.

In view of this, Member States, within the limits of the existing EU regulatory framework, have introduced various administrative methods and practices into their domestic legislation in order to curb and/or prevent offences. Sometimes these forms of law enforcement, also known as best practices, have been so effective in combatting fraud that several forms of illicit practices have actually been reduced, if not completely eliminated. For example, the case of the carousel established through the improper use of the institution of the habitual exporter where effective limiting regulations have been introduced in various countries. In other cases, the preventive measures put in place by Member States, often as a result of pressure from EU institutions, have succeeded in fighting fraud only for short periods of time, since fraud is constantly being rethought and "improved" in order to outdo domestic legislation. The recent evolution of illicit practices clearly demonstrates how the new ways in which these frauds are carried out has weakened the legislation provided for by individual domestic anti-fraud regulations giving criminals the chance to continue evading large sums until further measures are put in place.

Therefore, there are endless possibilities for fraudsters to commit intra-EU carousel fraud with the creation of new schemes and new forms of illicit practice capable of thwarting the efforts of national legislators to prevent and contain the problem through procedural and regulatory instruments. Fraud, as has been repeatedly stressed, has found itself a useful ally in the substantially non-harmonised assessment and control tools set up and applied autonomously by Member States. For this reason, EU institutions have always valued and promoted horizontal cooperation between the administrations of the various Member States and therefore **any move to combat tax evasion cannot disregard increasingly close forms of cooperation, such as those that already exist which provide for the creation of systems for the exchange of information and simultaneous controls between the competent authorities of each country**. In any case, for the same reason that the illicit practice has not yet stopped, and indeed has the potential to continue to grow, it is definitely advisable to **set up centralised procedures at EU level for verification and assessment in relation to VAT**.This need can be effectively met with a fully comprehensive digitalisation of VAT transactions so as to bring consistent data from countries into EU databases that is useful for monitoring and combating fraud. It is also necessary, however, to **accelerate the process of harmonising assessment and penalty regimes** in order to stem the problem of "tax tourism", that is the tendency of criminals to move the operational headquarters of their business activities to those countries where compliance rules are very lax and the likelihood and effectiveness of controls are low, leaving the field open to the proliferation of fraud.

6. Proposals aimed at reducing compliance costs

With the presentation of the 2020 Action Plan,[24] the European Commission eiterated that the complexity of having 27 different tax systems, on the one hand creates opportunities for tax abuse and, on the other, contributes to increasing uncertainty for honest taxpayers. These taxpayers are presently overburdened with formal obligations imposed by legislation that are not easy to manage and which involve significant compliance costs. As indicated in the Commission's recent Communication on Single Market Barriers, businesses systematically report that national tax rules and procedures are one of the biggest obstacles they face.

It is precisely this second element that confirms the theory of the VAT crisis. In the current situation of economic and financial fragility, made even more extreme by the effects of the pandemic, the administrative and compliance costs incurred by businesses in applying VAT rules have become almost unsustainable. The World Bank, in its Doing Business ranking, reiterated that there is a link between economic growth and the administrative burden on businesses, showing that economies that have adopted measures to reduce the complexity of administrative obligations in the tax field, both in terms of the number of payments and time spent on tax compliance, have recorded improvements in economic growth.[25] But the most striking finding is the empirical confirmation that **reducing the administrative burdens on businesses has a greater effect on economic growth than reducing taxes and duties**.

If we analyse Directive 2006/112, it becomes clear that a European company has as many as 34 reporting obligations under EU VAT legislation. The main obligations concern the invoicing process: the compilation and issuing of the invoice and the storage for tax inspection purposes.The challenge, therefore, lies in finding regulatory solutions that prevent operators from taking on these costs and then passing them on to customers. These are necessary obligations for the application of the tax itself and, as such, cannot be eliminated but they could be digitalised. Thus the **reduction in costs would come not from the elimination of obligations but from their digitalisation**. These obligations mainly concern declaration duties to ensure the proper functioning of the tax system. There are many others that have been introduced to tackle VAT fraud, but it is generally agreed that an effective counteraction cannot come from increasing the administrative burden on taxpayers. Also, there are additional burdens when an EU operator engages in international and intra-EU trade due to obligations imposed by importing countries. From an economic point of view, compliance costs are typically substantially higher for small companies than for large companies. The European Commission has estimated that tax compliance costs for large companies amount to about 2% of the taxes paid, whereas for SMEs the estimate is about 30%.

It can therefore be provocatively admitted that one of the advantages of evasion is the avoidance of internal and EU compliance costs. Indeed, administrative costs can act as an incentive for the administration to obstruct or outright refuse requests for refunds, reduce the tax revenue potential of Member States and act as a disincentive for businesses to apply the correct procedures, thus jeopardizing the right to deduct VAT. Tax costs are also a major obstacle to the development of intra-EU trade, as businesses have to choose between shouldering the higher costs or forgoing a business transaction.Starting from the certainty that the rationalisation and simplification of tax legislation and related obligations could reduce not only the costs of doing business, but also tax evasion and distortions of economic activity, the Commission in its Action Plan has once again underlined the

[24] Communication from the commission to the European Parliament and the Council - An Action Plan for fair and simple taxation supporting the recovery strategy - Brussels, 15.7.2020 COM(2020) 312 final.

[25] European Commission, Report from the Commission to the Council and the European Parliament. Seventh report pursuant to Article 12 of Regulation No. 1553/89 on VAT collection and control procedures, COM (2014).

importance of regulatory **simplification to increase competitiveness** in the single market. Let us therefore see in the following paragraphs what actions can be taken to reduce compliance costs through better exploitation of the data available at present or, better still, that will be available automatically if the actions proposed in the previous paragraphs are taken.

6.1. The management effects of the electronic invoice

The introduction of a generalised electronic invoicing obligation in all Member States would have significant effects (especially for operators in those countries that do not yet provide for it or that have transactions with entities located in those countries) and lead to a significant reduction in administrative costs linked to the "dematerialisation" of paper documents. Apart from the positive environmental impact due to the reduction in paper consumption and pollution associated with the transport of billions of documents through the postal service, **the real benefit is linked to the lower costs that would result thanks to the automation of administrative and management processes which will be increasingly refined**, making workflows ever more efficient.The data on the quantification of the actual savings related to dematerialisation are diverse and the sources are the most varied. Without going into the details of the various research and surveys carried out by private entities, public bodies and institutions including the EU, in general the total cost of processing a paper invoice for European companies is estimated at between 10 and 50 Euros which is 2/3 borne by the buyer / customer and 1/3 by the seller / supplier. Savings in paper, toner and maintenance costs or rental fees for printing hardware systems are basically “marginal” savings. The real savings associated with dematerialisation must be sought in the considerable increase in efficiency that the new systems bring, thus saving time.To better explain the idea, the following table shows the main components that make up the costs of issuing and receiving invoices, both paper and electronic.

Figure 4: Invoicing costs

LABOR DIRECT COST	• time for the process of verifying the correctness of the data to be indicated on the invoice (name, place, method of payment, etc.) • time for the actual drafting of the sales invoice • time for handling outgoing invoices (envelop invoices, stamp envelopes, etc.) • time for handling incoming invoices (receiving and opening envelopes, sorting invoices, etc.)
LABOR INDIRECT COST	• time to provide customers with telephone information on the content of invoices • time to provide customers with copies of invoices • time for archiving and subsequent searches • time in reconciling invoices with payments and receipts • time and errors deriving from the manual data entry of invoices • time for exceptions, disputes and litigation arising from billing errors
HARDWARE, PAPER AND VARIOUS COST	• costs for software (licenses, maintenance fees) • costs for printers and printing hardware • costs for paper, stamps and envelopescosti per carta, bolli e buste • costs for spaces for archives • costs for destroying invoices • costs of training and updating administrative staff

Source: Author

Therefore, "time" is the predominant element in most of the above elements, from which it can be concluded that the estimate of the cost of processing a paper invoice, which for European companies is estimated at between 10 and 50 euros, is absolutely correct as it takes into account all the elements that affect the processing of each one of them. **The transition to a generalised electronic invoicing obligation will make it possible to reduce not all, but a large part, of the cost components, particularly those linked to the "time" variable** - just think of the average hourly cost of an employee. However, it will be necessary to harmonise EU regulations and the internal regulations in individual countries to achieve integration of administrative and management processes, especially with a view to interoperability between different procedures. As we will see in the following paragraphs, the data generated by the full deployment of electronic invoicing across Europe will allow a significant reduction in compliance costs if evaluated with a view to maximising its use through automated accounting processes and pre-filled periodic tax returns.

6.2. Automated VAT accounting

An increase in data from the mandatory introduction of electronic invoicing in all Member States would allow a better "harmonisation" of compliance procedures for each individual operator. In particular, these data, together with that coming from other existing compliance procedures, would make it **possible to implement "automated" VAT accounting** in the information systems of the tax authorities of each country, thus relieving operators of these obligations.The main requirements that could be automated are set out below:

- ✓ **periodic VAT payment**, with determination of the debit or credit balance for the period
- ✓ **mandatory VAT registers** (issued invoice register, receipts register, purchase invoice register), automatically filled in through the electronic invoices issued and received
- ✓ **draft annual VAT return** from which the annual VAT payment is calculated, with the presentation of the various tables with details for the year, both for deductions and for various forms of tax treatment
- ✓ **draft form** to be used **for paying VAT** due or claiming VAT credits arising from the VAT return

In addition, with the new digital formats recently adopted in various countries (including XML), the new document types for electronic invoicing contain even more details useful for simplifying these automated compliance activities. Indeed, the new formats simplify the management of "reverse charge" invoices, sales invoices and credit notes. To achieve these important results, of course, the obligation will have to cover the receivables phase (sale), the payables phase (purchases), and additions to foreign documents in the case of integration and self-invoicing. The "foreign" and "domestic" reverse charges, which for years have been managed in paper form, will be replaced by a system whereby it will be possible to manage the entire "reverse charge" process digitally. Finally, thanks to these innovations, it will be possible to eliminate all kinds of communication that currently burden operators, including Intrastat, if the data contained therein can be included in each electronic invoice.

Also the new VAT identification codes within the much more numerous Xml (or similar) formats and types of withholding for electronic invoices will allow for a **more detailed management of VAT cases** which will allow for the most complete pre-filled VAT return, together with the fact that the new structure of the Xml format electronic invoice would ultimately allow Tax Authorities to automatically produce VAT registers, communications and the annual VAT return. The European

Commission has provided for the achievement of this goal in the 2020 Action Plan[26] presented in July 2020 and containing the necessary tax actions to support the Recovery Plan.It is precisely these innovations that would constitute **a new model of dialogue with taxpayers**, who would be provided with registers and pre-filled declarations, which they would be able to confirm or supplement with a **marked reduction in the compliance costs** associated with them to date. Compliance costs that are mainly made up of fees paid to the accounting and tax experts who advise economic operators on a daily basis.

[26] Communication from the Commission to the European Parliament and the Council an action plan for fair and simple taxation supporting the recovery strategy, Brussels 15.7.2020 COM(2020) 312 final.

7. Conclusions

In order to pursue a reduction of the VAT gap and compliance costs, this study confirms that **the main way** forward in the medium term is the **full digitalisation of Public Administration processes and services**. To achieve this, the need for significant investment in the modernisation and digitisation of tax administration has been highlighted. **In this context, it is necessary to aim constantly and progressively towards:**

- ✓ the **simplification** of obligations for economic operators;
- ✓ the **digitalisation** of services;
- ✓ maximising the use of available information assets, through the **extensive use and full interoperability of databases**, in compliance with data protection legislation.

In particular, as part of the simplification of services aimed at reducing compliance costs, it will be possible to automatically make available drafts of pre-filled VAT documents, i.e. registers of issued invoices and purchases, notifications of periodic VAT settlements and VAT returns. The information available to the tax authorities of the individual Member States is made up of numerous large databases, heterogeneous in structure and content and subject to rapid change. The gradual and complete digitalisation of information flows, with a view to reducing the VAT gap, will make it **possible to refine the criteria and methods of selecting those taxpayers to be checked**, favouring a model of action that aims to prevent the risks of evasion and avoidance rather than attempting to repress them after the event and to encourage spontaneous compliance with tax obligations by taxpayers (with consequent positive effects on the overall revenue recovered for taxation). The availability of useful audit data will reduce the compliance costs incurred by operators during tax audits and the "time" needed to find the required paperwork.

The digitalisation of European tax authorities that has been launched in recent years (but still heterogeneous across Member States), has already brought important organisational innovations through the creation of central and territorial structures specialised in tax risk assessment analysis, has introduced advanced analytics and "big data" methodologies and has invested in new professional skills (analysts and data scientists for example). It is now **necessary to arrive at a path of experimentation with innovative techniques of network analysis, machine learning and data visualisation**, in order to create a new support system for the processes of identifying the those to be checked, based on networks of relationships between parties and on machine learning, with a view to increasing the efficiency and effectiveness of these processes. Technological innovation and the expansion of current knowledge in the field of data analysis are therefore of strategic value for the European financial administration, as they favour an increase in the efficiency and effectiveness of the law enforcement processes of combating tax evasion and promoting tax compliance, the reduction of public spending and a richer offering of digital services to operators.

The digitalisation and modernisation of the Public Administration is also based on the **construction of a digital infrastructure based on the efficient use of the information included in the public information system**, and therefore in the possession of the Public Administration as a whole, by requesting operators "once only" the data needed to use a service (the so-called "once-only" principle). **The "once-only" principle** is based on the assumption that the collection of information is, at a systemic level, more costly and burdensome than the sharing of already available data. Its adoption constitutes a fundamental element of simplification in the relationships between economic operators and the Public Administration, with a view to streamlining the fulfilment of tax obligations and cutting out the red tape, promoting greater automation of processes and encouraging the creation of a single digital market at European level.

In order to encourage **exchange between public administrations**, **it is necessary to start on initiatives aimed at defining the strategy for the creation of new models of interoperability and data enhancement, through which taxpayers' tax information flows**. These data are already made available to a wide range of public administrations and entities carrying out activities in the public interest and are used to simplify the obligations imposed on economic operators and ensure greater efficiency and effectiveness of institutional services and activities. The use of the data already available and of the data deriving from the complete digitalisation of the processes will, therefore, allow an enhancement of information assets through **innovative methodological and technological solutions linked to the advanced analysis of the data**, following a framework that enhances:

- ✓ the timely availability of information of interest;
- ✓ ease of use and flexibility in defining analysis methods selecting data sources;
- ✓ interoperability with other public administrations.

This is intended to:

- ✓ guarantee flexibility in the processing of qualitative analysis, exploration, correlation and integration of data, in order to identify unknown phenomena;
- ✓ disseminate advanced analysis capabilities within the organisation, enabling a differentiated approach for different categories of users, in particular by diversifying methods and tools between central and peripheral functions;
- ✓ ensure the adequate capacity of technological platforms to manage large volumes of data from numerous;
- ✓ ensure compliance with data protection regulations and corporate security policies.

With this in mind, we should welcome the entry into operation of the "**Single Digital Gateway**" (SDG) [27] through which from this year [28] citizens and businesses that want to move freely in the single market have a single point of access to information on the Your Europe portal. The SDG is one of the most important initiatives aimed at encouraging the development of the European single market, promoting greater mobility for citizens and businesses, standardising access to services at European level through quality information and effective assistance channels.

However, the data that will continue to flow in ever increasing volumes is not enough on its own. The available databases are very heterogeneous, this is why it must be reiterated that **we need to use technology and therefore, among other things, artificial intelligence and investment in new competences**. But the potential of artificial intelligence is so great that it will first be necessary to understand whether policymakers will want to entrust the management of the tax system to an entity that could turn out to be difficult to manage .

What has been said so far can only be referred to the data generated between the exchanges of operators in the real market. Therefore it must be considered that **a risk to the optimisation of these tax data processing processes derives from the spread of economic transactions carried out in "invisible markets"**, such as on the so called "dark-web". In this context, a further risk could arise from the spread of the use of unregulated "crypto currencies" which are known to move in anonymous digital wallets and hide important information on financial transactions.

[27] Established with the European Regulation 2018/1724.

[28] 2021.

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European Parliament legislative-initiative reports drawn up on the basis of Article 225 of the Treaty on the Functioning of the European Union are automatically accompanied by a European added value assessment (EAVA). Such assessments are aimed at evaluating the potential impacts, and identifying the advantages, of proposals made in legislative-initiative reports.

This EAVA accompanies a resolution based on a legislative-initiative report prepared by the European Parliament's subcommittee on Tax Matters (FISC), presenting recommendations to the European Commission on avenues to follow to support the Next Generation EU recovery strategy and reduce the VAT gap in the EU by means of fair and simpler taxation.

The main purpose of the EAVA is to identify possible gaps in European Union (EU) legislation. The various policy options to address such gaps are then analysed and their potential costs and benefits are assessed.

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