

# Overview on the tax compliance costs faced by European enterprises – with a focus on SMEs

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## **Abstract**

This study aims at quantifying and comparing tax compliance costs burdening private businesses in the European Union by reviewing the available empirical literature and data with a focus on small and medium-sized enterprises. Data as well as methodological challenges are discussed and used to identify best-practice tax systems in Europe. We highlight differences in compliance costs met by firms of differing sizes, engaging or not in cross-border trade and for different tax types.

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## LIST OF ABBREVIATIONS

<b>ATAD</b>	Anti Tax Avoidance Directive
<b>ATR</b>	Average Tax Rate
<b>BEFIT</b>	Business in Europe: Framework for Income Taxation
<b>CCCTB</b>	Common Consolidated Corporate Tax Base
<b>CFC</b>	Controlled Foreign Company
<b>CIT</b>	Corporate Income Tax
<b>DAC</b>	Directive on Administrative Co-Operation
<b>DBMS</b>	Database Management System
<b>EASME</b>	Executive Agency for Small and Medium-sized Enterprises
<b>EATR</b>	Effective Average Tax Rate
<b>ERP</b>	Enterprise Resource Planning
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>MTR</b>	Marginal Tax Rate
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>R&amp;D</b>	Research and Development
<b>SME</b>	Small or Medium Sized Enterprise
<b>SPV</b>	Special Purpose Vehicle
<b>TETCC</b>	Total Enterprise Tax Compliance Costs
<b>UK</b>	United Kingdom
<b>US</b>	United States of America
<b>VAT</b>	Value Added Tax

## EXECUTIVE SUMMARY

### Background

Tax compliance activities can be considered as a necessary evil, as they serve the purpose to collect tax revenues effectively but, at the same time, they burden private enterprises with costs that may eventually cause them additional tax-induced burden. A widely-held belief is that smaller enterprises pay the higher price and may be put at a disadvantage compared to larger competitors. Given the role of younger firms in spurring growth, innovation and employment, policymakers often contend that policy action is warranted to improve a country's competitiveness and reduce barriers met by small and medium sized enterprises (SMEs). In the European Union (EU), the latter stance is observed in a number of EU-wide policy reform proposals, including but not limited to the Common Consolidated Corporate Tax Base (CCCTB) published in 2016 and, more recently, the Business in Europe: Framework for Income Taxation (BEFIT) initiative of the European Commission, which is undergoing a public consultation. Both said proposals include a common tax base definition with the aim to reduce complexity and associated costs faced by businesses when dealing with the many countries in Europe and the EU.

### Aim

This study aims at quantifying tax compliance costs burdening private businesses in the EU by reviewing the available empirical literature and data. The review focuses on data that allows comparing and ranking different European tax systems, enterprises of different sizes and that engage, or not, in cross-border trade. The objective is to provide sound evidence about the drivers of tax compliance costs, the association with specific taxes, the possible existence of best-practice tax systems to draw inspiration for the design of EU-wide policies. Special attention is devoted to understanding the advantages and limitations of different methodologies and data sources, also in order to suggest avenues for future research on this topic.

### Key Findings

- Tax compliance costs faced by private enterprises in the European Single Market are found to be sizable, most commonly ranging between 1% and 2% of turnover. In absolute value, compliance costs amount on average to about EUR 15,000 per year for enterprises located in the EU-27 countries plus the UK. These figures mask large heterogeneity, in that in countries imposing the largest compliance costs these can be up to three times those faced in countries with the smallest costs.
- Tax compliance costs grow in absolute terms with firm size, but less than proportionally. This means that smaller enterprises are burdened with relatively larger compliance costs. Such additional burden does not appear to stem from special allowances for small firms, rather from the general design of a tax system. Relatively recent data based on self-reported costs indicate that average tax compliance costs range between EUR 13,897 for micro-sized companies and EUR 33,917 for large companies. The data and their underlying definitions vary however strongly between different studies.
- Tax compliance costs stemming from corporate income taxation, value added taxes and wage-related taxes are similar in size, for all company size categories. Compliance costs due to other tax types (property-related and local/regional taxes) are still significant but smaller in magnitude. Compliance costs for corporate income taxes and value added taxes are found, on

average across EU countries, to amount to about EUR 3,000 each. Costs due to wage-related taxes are found to be a comparable burden.

- Companies who report to engage in cross-border trade are not found to be significantly more burdened by compliance costs. The additional burden, if any, is very small. On the contrary, enterprises who operate exclusively within domestic borders may suffer additional tax liabilities because of multinational enterprises' tax planning and the consequent rise of the local effective statutory tax rates as a response from governments to recover lost revenues. These purely domestic enterprises are unable to exploit transfer pricing as multinational competitors do, hence they may find themselves at a competitive disadvantage, particularly on the credit market where they could only offer smaller net returns to investors (due to paying larger effective tax rates).
- Cross-country comparisons of tax compliance cost measures are found challenging due to a number of methodological issues. Using multiple indicators, this study suggests that within Europe, the Nordic and the Baltic countries seem to offer an interesting best-case benchmark that deserves further study. The Nordic and Baltic countries are found among the best performers when using standardised measures by tax experts (such as those measuring the average time taken to deal with tax obligations for a fictional company in different countries) and surveys asking opinions about the transparency, frequency of change and complexity of administrative procedures. When looking at absolute and relative self-reported compliance costs by businesses, the picture is less clear-cut, although this may be due to a number of methodological limitations that are met when using such data for cross-country comparisons.
- Generally speaking, complexity and uncertainty increase tax compliance costs. As such, EU policy should focus on introducing common rules that reduce to a minimum the ability for local jurisdictions to deviate from such common rules. The definition of a common tax base for all EU members (e.g., as envisaged in the Common Consolidated Corporate Tax Base [CCCTB] proposal), preferably with a broad base with few or no deductible items, would go towards this direction. Rules that introduce only minimum common standards (e.g., the Anti Tax Avoidance Directive, the so-called ATAD rules), or the possibility for local jurisdictions to set exceptions, do not. Stability in existing rules, simplicity and clarity are also beneficial as they together reduce risks for taxpayers and the associated compliance costs. The introduction of multiple tax systems and options should therefore be avoided (e.g., one should refrain from introducing different base definitions for large and for small enterprises, or optional tax regimes), as it would increase complexity (as tax experts would be required to learn rules for multiple systems instead of just one, and would be required to make calculation under multiple optional regimes to compute the most beneficial one).
- Harmonisation of national tax bases and rules is expected to bring benefits in the form of lower compliance costs. Based on the reviewed data, the majority of such benefits is expected from the internal simplification of national tax systems, and only to a lesser extent from establishing equal rules across countries. This further stresses the importance of setting common definitions that are inspired by the best-performing tax systems in terms of their simplicity, clarity and ease of interpretation.

## 1. INTRODUCTION

Taxation policy very often occupies headlines in the news. Governments frequently reform tax rules, political parties always include proposals to improve some aspects of the tax system when approaching elections, while the general public perceives taxation as a whole as either “fair” or “unfair”. While public debates tend to focus on specific taxes and taxpayers and on specific issues that are perceived important or relevant at a given time, the very large academic literature on taxation tries to understand and disentangle multiple effects that taxes simultaneously have on the economy. By modifying relative prices, taxes affect decisions like how much to work or save, where to invest and in what kind of investment opportunities. Because tax liabilities are a function of quantities (most notably, income) that differ across the population of taxpayers, an empirical question that is often analysed is how the distribution of such tax burdens looks like (e.g., do direct taxes burden proportionally more richer households, or larger enterprises?). One important and very general result stemming from decades of theoretical and empirical economic research is that taxes do not only produce a direct burden, which is measured by tax liabilities paid by a taxpayer to the public tax collector, on the contrary they may also produce indirect burdens. One of such indirect burdens comes in the form of distortions in the choices made by economic agents as compared to a hypothetical scenario without taxes, which may possibly reduce the overall efficiency in the allocation of resources across the economy (thus, negatively affecting productivity and growth on a macroeconomic scale). Another indirect burden, which is the object of this report, are so-called tax compliance costs.

Tax compliance costs relate not to “how much taxes” a taxpayer pays, rather they relate to what actions taxpayers have to undertake to pay their taxes. Paying taxes entails financial and accounting planning, recording transactions, collecting and storing documents, filing declarations and possibly managing audits and litigations. All such activities fall within the definition of tax compliance. Broadening the scope of the definition, public administrations also face compliance costs to the extent that they need to receive, process and check tax declarations, audit households and businesses to reduce non-compliance and participate in judicial litigations. Overall, costs for compliance, both private and public, absorb resources that are additional to the amounts transferred from taxpayers to public treasuries as tax revenues.

Political attention toward tax compliance costs is found in many instances. Focusing only on European policy-making, one notable example was the proposal for a Common Consolidated Corporate Tax Base (CCCTB) from the European Commission, published in 2011 and again in 2016. In the official press release announcing the proposal<sup>1</sup> and listed among the expected benefits of the reform, one reads: *“Companies will now be able to use a single set of rules and work with their domestic tax administration to file one tax return for all of their EU activities. With the CCCTB, time spent on annual compliance activities should decrease by 8% while the time spent setting up a subsidiary would decrease by up to 67%, making it easier for companies, including SMEs, to set up abroad”*. Similarly, in its recent Communication on Business Taxation for the 21st Century published on 18 May 2021, the European Commission (2021) stated: *“Despite progress in removing barriers to the Single Market in other areas, companies doing business in the EU still need to grapple with up to 27 different national tax systems. This patchwork of national tax rules creates unnecessary compliance costs for businesses, which discourages cross-border investment in the Single Market. This is the case both for larger businesses, but also for SMEs, start-ups and other businesses looking to grow, expand and trade cross-border, for which the costs are proportionately greater”*. These, and many more examples which we refrain from listing here for the sake of brevity, suggest a

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<sup>1</sup> European Commission, 2016, *Commission proposes major corporate tax reform for the EU*, press release, [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_16\\_3471](https://ec.europa.eu/commission/presscorner/detail/en/IP_16_3471), accessed on 30/12/2022.

common view on existing compliance costs:

- That they exist and are large enough to become a concern for policymakers and businesses;
- That compliance costs are an obstacle to economic growth, as they would burden enterprises and discourage investment;
- That compliance costs disproportionately burden smaller enterprises;
- That action by policymakers is needed to reduce such costs, with the objective to spur investment.

In this study, our aim is to provide a basis for evaluation of what is actually known about tax compliance costs, out of the political rhetoric and the common views by the laymen and truly anchored to the available data. We will summarise the relatively small existing empirical evidence providing dependable and sufficiently recent cross-country estimates of such costs, thus allowing for proper comparisons and rankings among countries and tax systems. We will inquire how private compliance costs are distributed across enterprises by their size, type of taxes and type of activity; we will try to better understand what characteristics of tax systems mostly affect compliance costs and whether there are examples of tax systems that appear to fare better, particularly focussing on small and medium size enterprises (SMEs). We will also discuss methodological issues met when trying to perform such comparisons and highlight which methods provide the best approach to the measurement and comparison of compliance costs burdening private businesses.

The report is structured as follows. Chapter 2 provides a short summary of a vast theoretical literature, with the aim to lay down a conceptual framework to interpret the data. Chapter 3, which will occupy a major part of this study, reviews the existing empirical literature and data on private tax compliance costs. The content of Chapter 3 is, first, about methodology and the possibility to compare countries and, second, about actual rankings and estimates. Chapter 3 in particular focuses on the possibility to identify best practices in the form of tax systems whose characteristics are associated with smaller compliance costs and on how tax compliance is associated with different enterprises and tax types. Finally, Chapter 4 draws some conclusions and provides general indications for policymakers and for future research.

## 2. TAX COMPLIANCE COSTS: THEORY

Tax compliance costs stem from a variety of sources. A first relevant distinction is between public and private costs. Private compliance costs burden private businesses and are further detailed in Chapter 2.1. Public compliance costs refer to the need, for tax authorities, to put in place a series of activities and infrastructures in order to deal with tax auditing. These are discussed under Chapter 2.2. Chapter 2.3 will address the economic effects of private tax compliance costs through the lens of “red tape” and tax incidence theories. Chapter 2.4 briefly addresses the role of digital technologies as a possible means for reducing both private and public compliance costs.

### 2.1. Private tax compliance costs

Multiple reporting duties require personnel who possess expertise in accounting, which in turn can either be obtained internally from the pool of employed accountants in a company or externally by means of hiring tax consultants. Tax compliance costs are met when recording economic transactions in a company’s accounting to the extent that such recording activities are influenced by tax-induced considerations (an instance being the need to keep separate accounts for itemised deductions) and at the time of preparing and submitting tax declarations, but possibly also in subsequent times in case of a tax audit, litigation or appeal. The latter costs, albeit being only potential, also take the form in most instances of highly skilled labour force hours, either provided by employees or by external legal and consulting services. Tax planning activities which are pursued to reduce total tax liabilities can be seen as a form of tax compliance cost, too, as it comes natural for a business to optimise taxes in a way that maximises net profit, without however adopting an aggressive tax planning which would be a form of tax evasion and, as such, against the letter or the spirit of the EU tax systems.<sup>2</sup>

The required know-how to handle tax compliance activities can, at least to some extent, also be acquired by purchasing software or subscribing to digitally delivered services providing the needed expertise in the form of algorithmic functions, possibly coupled with graphical user interfaces and a database management system (DBMS). Software cannot only automatise a number of tax-related tasks (e.g., by selecting the right tax rate to apply to a given category of goods), but also offer some degree of tax optimisation, e.g., by automatically computing the choice, out of a set of options, that minimises the overall tax liabilities, or via integration with other digital infrastructures and subsystems of a company in a way that automatically computes aggregate figures for a fiscal year.<sup>3</sup>

As such, most private tax compliance costs are live costs, generating negative cash flows in the form of wages, purchases of external services and/or purchases of software (or subscriptions to software applications available as cloud services). As reported in the literature survey by Eichfelder and Vaillancourt (2014), the majority of such costs are for personnel expenses: between 42% and 88%<sup>4</sup> of total tax compliance costs paid by private businesses are for personnel, while the rest covers external advisory services and other expenses.

An interesting question is then: how do these costs scale with the size of a business? A possible outcome is that costs for reporting are essentially fixed, meaning they do not grow significantly with

<sup>2</sup> Here and throughout the following chapters, we stick to the standard definitions used in the literature, where the term “avoidance” indicates legitimate tax dodging practices in accordance with the law, while “evasion” entails violation of laws and regulations and, possibly, punishment and sanctions in case the tax evasion actions are discovered.

<sup>3</sup> Tax technologies are becoming more and more important, so much that specific courses are being deployed to meet increasing demand for specialised workers in the area of digital technologies applied to taxation. See, e.g., the recently announced Diploma in Tax Technology offered by the Chartered Institute of Taxation in the UK (see Chartered Institute of Taxation, *Introducing the new Diploma in Tax Technology*, <https://www.tax.org.uk/ditt>, accessed on 20/12/2022).

<sup>4</sup> The specific percentage depends on the specific study one looks at. Overall, Eichfelder and Vaillancourt (2014) report an unweighted average of 65% across the studies they reviewed.

measures capturing the size of a company, such as turnover, profit or total assets. However, a large multinational group having branches, suppliers and customers in many different jurisdictions may face different rules and requirements and as such also be burdened by larger compliance costs as its accountants would need to cope with multiple laws, languages, systems and reporting formats. Similarly, exporting firms may face multiple duties, for example with respect to VAT accounting and reporting (e.g. to keep track of turnover generated by products and services on which different VAT rates are levied, or different exemption regimes apply). Finally, tax planning costs are likely to be larger for large company groups and for multinational enterprises. Thus, it is not clear a priori whether one should expect private compliance costs to scale up (and how much), or not, with the size of a company or with the degree of internationality of a company's business.

The relationship between the size of tax compliance costs and the size of a business is particularly relevant when analysing the impact of such costs on smaller enterprises. If compliance costs are essentially fixed, then it stands to reason that smaller firms will bear a disproportionately larger burden in relative terms, compared to large businesses. On the opposite side of the spectrum of possibilities, compliance costs that are perfectly proportional to the size of a business would imply that SMEs are not particularly disadvantaged by them. These kinds of questions, however, can hardly be answered without sound empirical evidence. There are good reasons to believe that, in recent times, the share of variable costs on total compliance costs may have become larger in comparison to the share of fixed costs, thanks to digital services and software applications. Higher variability in compliance costs would in turn reduce the relatively larger burden for SMEs. But, equally reasonable is the opinion according to which globalised markets and increasing reporting duties made compliance-related fixed costs larger, at least for some categories of businesses, thus more intensively burdening SMEs. In the end, because of these contrasting effects at play, the overall sign of the correlation between firm size and compliance costs must be obtained empirically via quantitative analysis.

Higher tax compliance costs can be associated with a larger complexity of the tax system. The existence of many exceptions, special tax rates or deductible items, usually require more time and effort to properly review and categorise spending items. For example, under VAT, the existence of different tax rates applied to different categories of goods and customers may require additional time to sort them and keep separate records. The existence of several distinct taxes, each with its own rules and duties, may increase compliance costs. Reporting requirements can also affect the time required to file a tax declaration, for example in case several documents need to be attached to the declaration or prepared in the event of a possible subsequent audit. The way tax forms are designed may also imply additional costs as more time is needed to navigate through many pages and sections. The frequency by which tax filings are required may also bring additional costs. Regardless of the degree of complexity of the tax system, frequent changes in the regulations imply that expertise is even more needed to keep track of all such modifications in a timely and exact manner. Employed accountants will then need to spend time to update and retrain themselves on the new rules, while externally acquired services will also be offered at higher prices as they will also need to keep their workforce updated.

With regard to tax laws that frequently change because of frequent policy reforms, an additional cost burdening private businesses comes in the form of uncertainty about the exact extent of their future tax liabilities. This policy-induced increased volatility of future net profit constrains the ability of a business to rely on expected cash flows to finance its investments with internal financing sources, thus eventually leading to higher financing costs. The economic impact of tax-related uncertainty is hard to quantify, but regardless, its impact can be sizable and significantly affect the economy in the long run, not least by reducing local businesses' competitiveness *vis-à-vis* competitors residing in tax jurisdictions with a more stable tax policy.

## 2.2. Public tax compliance costs

This paper focuses on tax compliance costs faced by private businesses. However, it is worth at least mentioning the existence of public compliance costs. The complexity of the tax system, the existence of many reporting duties for private businesses and households to fulfil, the need to manage subsequent litigations and amendments, all require public infrastructures and personnel who is capable of handling the various aspects of tax law and procedures.

In principle, a very simple tax system where most, or all, reporting duties are managed electronically would likely entail minimal expenditures for the public budget. The simplicity of tax rules would make mistakes rare and intentional misreporting easier to identify and demonstrate, as such reducing the number and average length of litigations. Also, electronically filed tax declarations allow some degree of automation, for example all arithmetical checks can be performed automatically, even at the time of submission (cf. also Chapter 2.4 for a discussion on applications and limitations of digital technologies). Similarly, comparisons of declared turnover and costs for a business could be automatically performed across different tax years to spot anomalies, which would then permit more focused audits. The availability of a large number of tax declarations in electronic format also enables enhanced statistical analysis which further helps tax authorities in planning their tax audit strategies.

While digital technologies have indeed entered this area of public management, the intrinsic complexity of most tax systems limits the extent of cost reductions that may be gained by means of digitalisation – besides of course the additional costs of the required digital infrastructure. In the context of tax audit, automation has not achieved such a high level of sophistication as to be able to automatically manage a constantly changing set of tax avoidance and tax evasion practices, which evolve as taxpayers discover new forms of tax dodging as the tax system changes, reform after reform (although early attempts have been made: as an instance see Hemberg et al., 2016, presenting an algorithm designed to predict tax dodging strategies under the assumption that tax rules co-evolve together with tax avoidance behaviour).

The existence of both private and public tax compliance costs implies that, for a given theoretical tax revenue obtained as the multiplication of a tax base, named in the below equation BASE, times the average effective tax rate (which is the tax rate obtained starting from the statutory tax rate and factoring in all existing tax allowances and deductibles), named EATR, one also needs to subtract public tax compliance costs, represented as PTCC, to obtain the total net revenue which is effectively collected and available for investment:

$$(BASE * EATR) - PTCC$$

This means that part of tax revenues has to finance tax authorities, their infrastructure and personnel and the legal costs to manage litigations. The movements of BASE and/or EATR on one side, and PTCC on the other, are however not necessarily correlated and may even move in opposite directions. As an example, the introduction of a number of new tax allowances may reduce BASE, while at the same time it could increase PTCC as the tax system gains complexity (because of multiple classifications for deductibles items and additional reporting duties to benefit from the new allowances). In the latter example, such a tax reform might reduce net tax revenues more than initially intended by the policy-maker.

There are few estimates of public tax compliance costs available. In Vaillancourt and Clemens (2008), for instance, the authors estimate the private compliance costs for Canadian businesses between 1.2% and 1.8% of Gross Domestic Product (GDP), while public administration costs were estimated between 0.2% and 0.5% of GDP (and thus six to almost four times smaller). Similar results from previous literature

reported in Evans (2003) also point to public costs being significantly smaller than those burdening private businesses (between two and six times smaller on average).

### **2.3. The economic consequences of private tax compliance costs**

Private tax compliance costs fall under the broader definition of “red tape” costs. These include any cost incurred by private entities (businesses, households or individuals) when they interact with public authorities and entities or when they comply with existing laws and regulations. Events producing red tape costs can happen on a voluntary basis (e.g., when a business contacts a public office to ask for information) or they can be mandatory (which is the case of most tax-related interactions). Generally speaking, red tape costs cause additional burden to private businesses and, as such, they can be considered as a form of hidden taxation that obtains no revenues or as a kind of attrition which causes economic value to dissipate. From this perspective, red tape costs are socially undesirable as they merely cause additional resources to be wasted. Such an approach was, for instance, taken in Barrios et al. (2020) where a computable general equilibrium model designed to represent the entire EU economy (plus the UK, the US and Japan) was employed to analyse the likely impact of EU-wide tax reforms that include provisions to reduce private tax compliance costs. In that study, compliance costs act as an overburden to labour costs that does not bear any social benefit. Simulation analysis then revealed and quantified distinct channels through which a reduction in such compliance costs may affect the economy: a reduction of tax compliance costs (again, when interpreted as pure overburden not adding any economic value) increases the average productivity of the workforce while reducing wage costs and the cost of production. Compliance costs in Barrios et al. (2020) may also mediate the effects of tax reforms such as the introduction of a Common Consolidated Corporate Tax Base (CCCTB) as designed in the European Commission’s 2016 proposal: by making countries which start with smaller compliance costs before the introduction of the CCCTB reform better off afterwards. Barrios et al. (2020) show that initial compliance costs mediate the ability for the CCCTB reform to reduce the cost of capital and, as a consequence of this reduction, increase private investment. This is the reason why countries who in the simulations start with larger compliance costs before the introduction of a CCCTB, end up with smaller gains from the CCCTB (in terms of GDP and investment growth). It is argued that, therefore, a reduction in tax compliance costs is not only an expected outcome of tax bases harmonisation, but also a requirement to fully benefit from the investment-inducing features of the CCCTB.

The academic literature on red tape costs, though, argues that they may also have a positive side. Guriev (2004), for instance, proposes a model where red tape costs are needed to produce useful information. Similarly, more sophisticated and complex rules and regulations might be used to reduce favouritism and discretion by bureaucrats in order to contain corruption. In the context of taxation, though, information generated by red tape costs is mainly used to curb tax evasion, which is a phenomenon that is generated by taxation itself and which sometimes positively correlates with the complexity of a tax system (thus, with tax compliance costs!). The paradox is, then, that a vicious circle might be triggered as a government increases rules to try and limit tax evasion, which in turn grows because of the high complexity. However, higher complexity may also have the opposite effect on evasion behaviour, if it makes tax avoidance easier and thus, more taxpayers leave evasion and opt for avoidance (Alm, 1998). Also, additional compliance costs may be due to, and associated with, better controls and audit practices which could effectively reduce evasion.

Another angle to look at tax compliance is that, on top of producing a burden for citizens in general and private business in particular, red tape costs can be set at excessive levels (far above some theoretical optimum that would maximise social welfare) by bureaucrats who may thus extract rents, non-monetary returns (e.g., in the form of managing a larger pool of resources) or illegal rents via

bribery and corruption to allow some citizens to “grease the wheels” of the system. As argued in Shleifer and Vishny (1993), corruption and taxation differ in at least one fundamental way, in that corruption is illegal and thus requires secrecy. The efforts to keep corruption hidden, then, may cause corruption to be far more distortionary than taxation. As an aside, we should note that tax evasion may not cause additional social costs due to concealment activities (as these costs equate, marginally at the private optimum and together with the expected costs for punishment, the reduction in tax liability; see Slemrod, 2007), but still, it reduces tax revenues and may produce additional public compliance costs (refer again to Chapter 2.2).

These considerations overall suggest that although some positive level of tax compliance costs has to be accepted as a necessary element of a well-functioning tax system, such level should be kept very close to the minimum necessary. Any additional compliance cost causes overburden for private businesses and may also spur corruption which, in turn, can be distortionary and burden additional costs onto the economy and society. In particular, costs due to increasing complexity of the tax system that do not have a reason to be (as they do not provide a way to improve the effectiveness of tax collection and audits) should be especially limited as they might spur evasion and/or additional avoidance. The latter observations hint at possibly heterogeneous economic effects for different types of private tax compliance costs.

Often tax systems develop additional complexity as policymakers try to meet a number of different objectives. An example is the desire to support disadvantaged households via social spending. As new needs and previously unknown socially excluded groups are identified, new targeted policy actions may come into existence in the form of special tax allowances and credits, targeted reductions of tax rates, special exemptions and subsidies which may interact with the existing provisions of the tax system. The possible outcome of these policy activities, over time, can produce an unintended level of complexity for the tax system. In these cases, complexity and the associated compliance costs are a by-product of policymaking and have therefore nothing to do with improving the effectiveness of tax collection. Tax compliance costs associated with this type of complexity are, therefore, most often closest to the interpretation of red tape costs as being purely wasteful from a social perspective.<sup>5</sup> For businesses, compliance costs of this type may include: facing multiple indirect taxes and VAT rates because of categories of goods that are deemed socially relevant (or, on the opposite, deemed as luxuries or “sin goods” whose consumption should be deterred via higher taxes); having different tax regimes to support smaller enterprises, young enterprises, or enterprises belonging to selected typologies that are deemed socially or economically desirable (e.g., enterprises from highly innovative sectors or performing research and development investments); tax rates and tax bases being defined differently on a territorial basis, with the aim to support disadvantaged regions.

## 2.4. Digital technologies

The diffusion of digital technologies throughout modern economies brought the promise of potential reductions in compliance costs via more efficient submission methods and data management systems. We briefly review hereafter potential applications and limitations.

Platforms allowing e-filing of tax declarations and documents may indeed facilitate such submissions, avoiding in-presence operations but also costs associated with paper documents and postal services.

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<sup>5</sup> Such social wastefulness of compliance costs, of course, does not take into account the possible social gains obtained in areas not related to taxation, e.g. by reducing net income inequality or supporting a country’s competitiveness. It is to stress, though, that very often the same result can be obtained in an economically more efficient way by refraining from introducing discriminating tax regimes. In the example of income redistribution policy, lump-sum transfers can be less distortionary and obtain the same income distribution, as selective tax reductions and allowances.

An added benefit of electronic tax declarations can be that they may offer a way to check for consistency right at the time of submission, for example by automatically computing summations and internal consistency (e.g., by spotting typos and thus reducing the need for subsequent modifications of the declaration). Another feature is to offer taxpayers pre-compiled forms using figures from previous year's declarations, which may also speed up filing. On the other hand, setting up and maintaining the digital infrastructure needed for offering e-filing of tax declarations and documents and for efficiently processing data may go together with additional costs.

While said efficiency gains can be somewhat limited for businesses, because they do not reduce the need for expert labour to properly conduct tax planning activities, digital technologies may significantly reduce public compliance costs (assuming that the costs to set up and maintain the digital infrastructure play a minor role). Tax auditors having at their disposal declaration data in digital form, can perform (at least in principle, though limitations due to the law may apply) statistical analysis more efficiently and with less manual work. Tax authorities may employ more advanced statistical techniques based on aggregate data, if a majority of tax declarations are available in digital format and are thus searchable based on keywords.

From these brief reflections, one would expect that the diffusion of digital technologies to support tax declarations is not going to reduce private tax compliance costs significantly (while it might bear reductions in public compliance costs). Better software applications to deal with internal accounting and tax administration, i.e., in the form of more effective and cheaper Enterprise Resource Planning (ERP) software systems, might in time deliver such reductions in private businesses as well, though it is hard to predict and quantify *ex ante* such effect because it rests on the assumption that savings in labour costs due to tax compliance activities will be substituted by smaller costs to carry out the same tasks using such software. While software and digital services often act as labour-saving technologies (the example of automated responding machines substituting human operators comes to mind), they also require highly skilled and specialised personnel to programme them and interact with them, thus displaying, in many instances, characteristics of a labour-enhancing technology which would then need highly trained workers who could possibly command a higher wage. Thus, compliance cost reductions due to a widespread adoption of digital technologies should not be taken for granted and, even if verified, could prove to be relatively small, at least in the short run when the kind of human capital that is necessary as a complementary factor is still building up in the available workforce through education, training and learning by doing activities.

### 3. TAX COMPLIANCE COSTS: EMPIRICAL EVIDENCE

This chapter reviews existing empirical literature and data on private tax compliance costs. Chapter 3.1 summarises results on the overall size of such costs and the observed differences across countries, with a focus on results for European countries. Chapter 3.2 analyses the available evidence on the link between firm size and compliance costs. Chapter 3.3 focuses on private tax compliance costs stemming from different tax types. Chapter 3.4 reviews the evidence about the relation between cross-border activity and tax compliance.

#### 3.1. The size of private tax compliance costs across countries

Before reviewing the available empirical evidence on tax compliance costs, as a general methodological note it is important to stress that most studies rely on surveys with small sample sizes and that are limited to one, or very few, countries and years. Cross-country studies allowing for a comparison of such costs are indeed very few: Evans et al. (2014) conducted research for four countries (Australia, Canada, South Africa and the United Kingdom) in 2010 and 2011. The OECD (2001) offers a study comprising 8,000 small and medium-sized enterprises in 11 countries (Australia, Austria, Belgium, Iceland, Mexico, New Zealand, Norway, Portugal, Spain and Sweden). The European Commission (2004) surveyed 700 companies across fourteen EU Member States in 2003. Klun and Blazic (2005) studied Slovenia and Croatia. The variety of methodologies and survey designs, the absence of estimates covering a large number of EU countries and the small number of studies provide an obstacle to any attempt at deriving a commonly agreed set of estimates for EU countries. This motivates us to focus on a small number of studies which have been designed to cover a large number of countries. These comprise two studies prepared by KPMG and VVA/KPMG, respectively published in 2018 and 2022 – the first one was commissioned by the Executive Agency for Small and Medium-sized Enterprises (EASME) and the European Commission<sup>6</sup> and the second one by the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, the European Innovation Council and the SMEs Executive Agency<sup>7</sup> (in the following parts, these two studies will be also referred to as KPMG, 2018, and VVA/KPMG, 2022, respectively). The small number of studies we focus on also comprises a database that is part of the "Doing Business" initiative of the World Bank.<sup>8</sup> While the latter project has been put on hold by the World Bank, data on taxes and mandatory contributions to be paid by companies are available for selected years and for a very large number of countries worldwide, particularly with respect to estimates of the number of payments due and the number of man-hours required per year to fulfil tax requirements.

The literature review provided in Eichfelder and Vaillancourt (2014) summarises a large number of older studies on tax compliance costs. Looking at reported results for the tax compliance costs faced by businesses, estimates vary wildly across countries and years, ranging from values (expressed as a share of turnover) as low as 0.01% (i.e. for medium and large companies in the Netherlands, as reported in Allers, 1994) up to values as high as 15.0% (i.e. for small companies in Croatia, see Blažić, 2004). As stated already, the heterogeneity of such estimates is the outcome of a number of factors, some of which are hard to control for: composition of the sample (firm size, industrial sector), country and year of measurement, scope of the different tax types, methodology employed. Thus, different figures might

<sup>6</sup> European Commission, Executive Agency for Small and Medium-sized Enterprises, Verschueren, W., Meeusen, T., Kaszap, A., et al., *Study on tax compliance costs for SMEs: final report*, Publications Office, 2018: <https://data.europa.eu/doi/10.2826/02329>.

<sup>7</sup> European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, European Innovation Council and SMEs Executive Agency, Di Legge, A., Ceccanti, D., Hortal Foronda, F., et al., *Tax compliance costs for SMEs: an update and a complement: final report*, Publications Office of the European Union, 2022: <https://data.europa.eu/doi/10.2873/180570>.

<sup>8</sup> World Bank, 2019, *Paying taxes*, Doing Business archive: <https://archive.doingbusiness.org/en/data/exploretopics/paying-taxes>, accessed on 2/12/2022, data were collected over the calendar year 2018.

not measure actual differences in average tax compliance costs, but rather, a different composition of the population of enterprises or just different concepts upon which definitions and measures were based on. Moreover, most of these older studies were published in the 1980s, 1990s or early 2000s. Because national tax systems and rules have changed in time as a result of multiple policy reforms, the picture provided by older studies does not reflect the current state of affairs and may be misleading in guiding our understanding of the challenges faced by enterprises in current times.

The World Bank “Doing Business” dataset comprises a section on tax compliance costs (“Paying Taxes”). The methodology *“uses a case scenario to measure the taxes and contributions paid by a standardized business and the complexity of an economy’s tax compliance system. This case scenario uses a set of financial statements and assumptions about the transactions made over the course of the year. In each economy tax experts from a number of different firms (in many economies these include PwC) compute the taxes and mandatory contributions due in their jurisdiction based on the standardized case study facts”*<sup>9</sup>. As the type of business presented in the case scenario is the same for all countries, the reported figures are not affected by the size or sectoral distribution of actual enterprises in a given country, thus granting improved comparability across different economies. Hereafter we focus on the most recent available data (for the year 2018) and on two indicators: the number of payments required in the fiscal year and the total estimated number of hours needed to fulfil all tax compliance activities.

As the above cited section of the World Bank “Doing Business” webpage<sup>10</sup> furthermore informs, describing data for the number of payments, note that *“Where two or more taxes or contributions are filed for and paid jointly using the same form, each of these joint payments is counted once”*<sup>11</sup>. Also, *“Where full electronic filing and payment is allowed and it is used by the majority of medium-size businesses, the tax is counted as paid once a year even if filings and payments are more frequent”*<sup>12</sup>. The time indicator *“measures the time taken to prepare, file and pay three major types of taxes and contributions: the corporate income tax, value added or sales tax, and labor taxes, including payroll taxes and social contributions. Preparation time includes the time to collect all information necessary to compute the tax payable and to calculate the amount payable”*<sup>13</sup>. It is to note that these indicators also avoid one layer of estimation associated with assigning a cost (expressed in monetary terms) to compliance activities. By only providing measures of hours lost and of the number of payments, these data remove one additional confounding factor, namely the choice of which hourly wage to employ in order to transform time into monetary measures of costs/expenditures. The latter characteristic further improves cross-country comparability and motivates the use, in the following, of these figures as a term of comparison against relevant measures that might be connected to tax complexity and compliance requirements.

It is worth mentioning two limitations of the World Bank data: first, figures are not provided separately for micro, small, medium and large firms, thus no inference can be made about how compliance costs vary by firm size; second, for some developing countries the methodology has been criticised in the past as some country figures were unrealistically large (e.g., for Brazil, as noted already in Eichfelder and Vaillancourt, 2014) or irregularities were documented (i.e. for China, Saudi Arabia and the UAE, see the “Investigation of Data Irregularities in Doing Business 2018 and Doing Business 2020 – Investigation

<sup>9</sup> See World Bank, no date, *Paying Taxes methodology*, Doing Business archive: <https://archive.doingbusiness.org/en/methodology/paying-taxes>, accessed on 18/11/2022.

<sup>10</sup> See World Bank, no date, *Paying Taxes methodology*, Doing Business archive: <https://archive.doingbusiness.org/en/methodology/paying-taxes>, accessed on 18/11/2022.

<sup>11</sup> See World Bank, no date, *Paying Taxes methodology*, Doing Business archive: <https://archive.doingbusiness.org/en/methodology/paying-taxes>, accessed on 18/11/2022.

<sup>12</sup> See World Bank, no date, *Paying Taxes methodology*, Doing Business archive: <https://archive.doingbusiness.org/en/methodology/paying-taxes>, accessed on 18/11/2022.

<sup>13</sup> See World Bank, no date, *Paying Taxes methodology*, Doing Business archive: <https://archive.doingbusiness.org/en/methodology/paying-taxes>, accessed on 18/11/2022.

Findings and Report to the Board of Executive Directors” released by the World Bank on 15 September 2021<sup>14</sup>), thus the World Bank is in the process of modifying it in order to improve its transparency.<sup>15</sup> We will consequently employ the World Bank data only to perform cross-country comparisons and mostly for European countries.

Table 1 compares the mean value of the World Bank “Paying Taxes” indicators for the EU-27 countries against other developed countries and some macro-aggregates. Both the number of payments and the hours are approximately in line with countries such as the US. Looking specifically at the number of hours, which is probably the indicator that more closely proxies for the costs associated with compliance activities, the EU-27 positions itself above other developed countries (i.e., Australia, Canada, Japan, Switzerland, the UK) but below values observed for the rest of the world. Again, some scepticism is warranted when reading the last five rows of Table 1 because, as stated, the methodology used to prepare the World Bank figures has been criticised due to a lack of transparency when applied to some developing countries (e.g., in Eichfelder and Vaillancourt, 2014).

Table 1: Payments (number per year) and time (hours per year) to comply (for businesses) with tax obligations for selected countries and regions

	Payments	Time
EU-27 average	10.22	170.37
Australia	11.00	105.00
Canada	8.00	131.00
Japan	19.00	129.00
Switzerland	19.00	63.00
United Kingdom	9.00	114.00
United States	11.00	175.00
East Asia & Pacific	20.60	173.00
Latin America & Caribbean	28.20	317.10
Middle East & North Africa	16.50	202.60
South Asia	26.70	273.50
Sub-Saharan Africa	36.60	280.60

Source: World Bank “Doing Business”, “Paying Taxes” indicators for the year 2018.

Note: The EU-27 average represents the (non-weighted) average of the number of payments and the number of hours, respectively, across all 27 Member States.

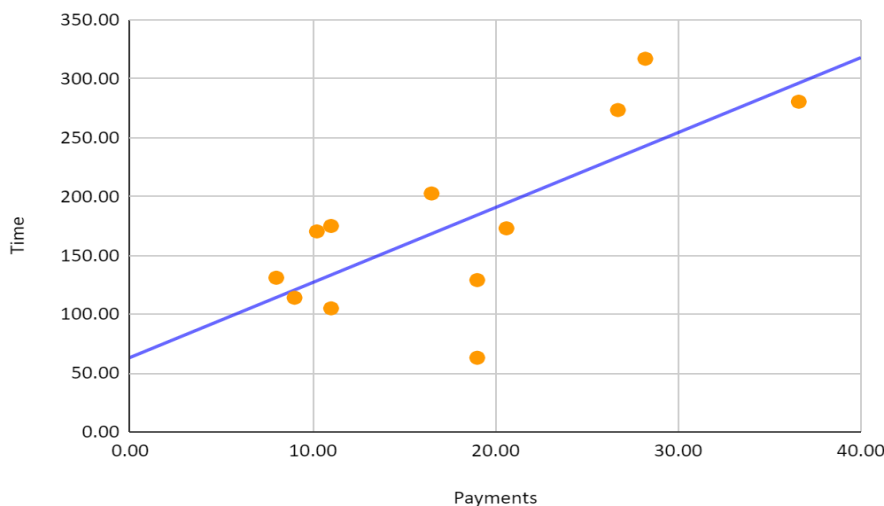
One can note, as shown in Figure 1 which plots the data points from Table 1, that the two indicators are closely related, meaning that more tax payments per year are associated (as intuition would lead

<sup>14</sup> Machen et al., 2021, Investigation of Data Irregularities in Doing Business 2018 and Doing Business 2020 Investigation Findings and Report to the Board of Executive Directors: <https://thedocs.worldbank.org/en/doc/84a922cc9273b7b120d49ad3b9e9d3f9-0090012021/original/DB-Investigation-Findings-and-Report-to-the-Board-of-Executive-Directors-September-15-2021.pdf>, accessed on 15/1/2022.

<sup>15</sup> See the World Bank’s public statement *World Bank Group to Discontinue Doing Business Report*, released on 16/9/2021 (<https://www.worldbank.org/en/news/statement/2021/09/16/world-bank-group-to-discontinue-doing-business-report>, accessed on 9/1/2023). The Statement reads: “After data irregularities on Doing Business 2018 and 2020 were reported internally in June 2020, World Bank management paused the next Doing Business report and initiated a series of reviews and audits of the report and its methodology. [...] After reviewing all the information available to date on Doing Business, including the findings of past reviews, audits, and the report the Bank released today on behalf of the Board of Executive Directors, World Bank Group management has taken the decision to discontinue the Doing Business report.”.

to expect) with a larger amount of time used for compliance activities.

Figure 1: Payments (number per year) vs. time (hours per year) to comply with tax obligations (for businesses) for selected countries and regions

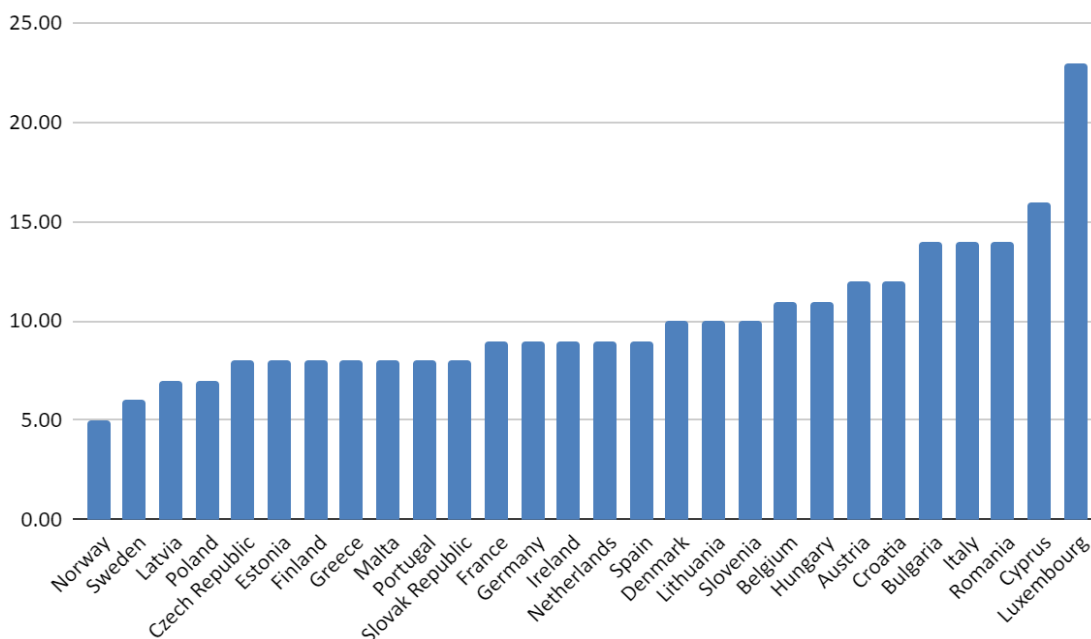


Source: World Bank “Doing Business”, “Paying Taxes” indicators for the year 2018.

Note: The blue line represents a linear trend.

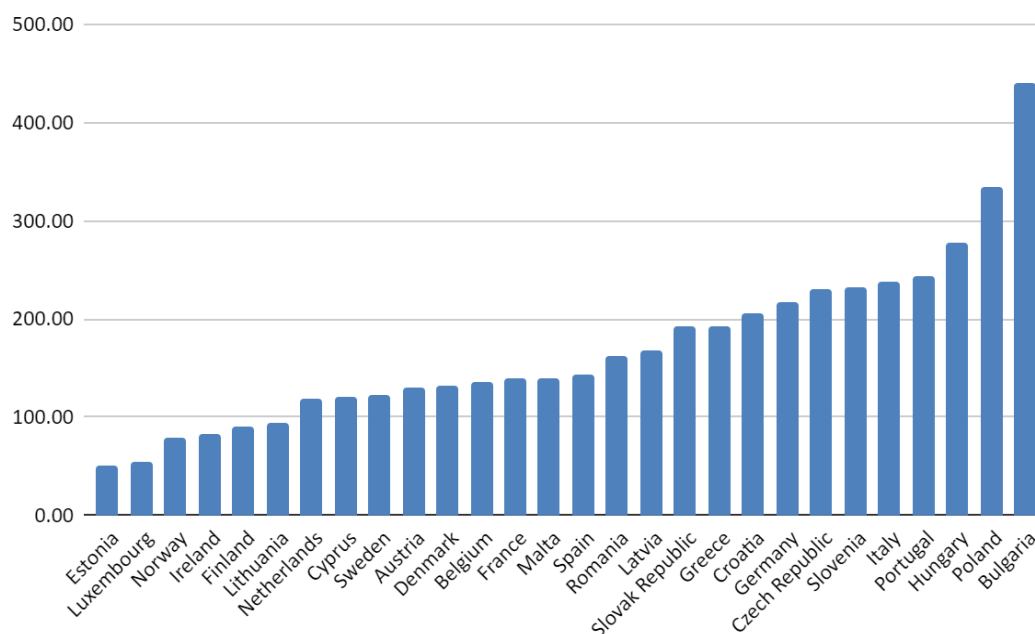
Such comparisons however mask the large heterogeneity that is observed across EU Members. Figure 2 and Figure 3 report the same information but this time split by European country (data include EU-27 members plus Norway). Country level data suggest a degree of clustering, with Nordic and Baltic countries (Norway, Finland, Sweden, Estonia, Latvia, Lithuania) experiencing on average lower numbers of payments and required time.

Figure 2: Payments (number per year) to comply with tax obligations (for businesses)



Source: World Bank “Doing Business”, “Paying Taxes” indicators for the year 2018.

Figure 3: Time (hours per year) to comply with tax obligations (for businesses)



Source: World Bank “Doing Business”, “Paying Taxes” indicators for the year 2018.

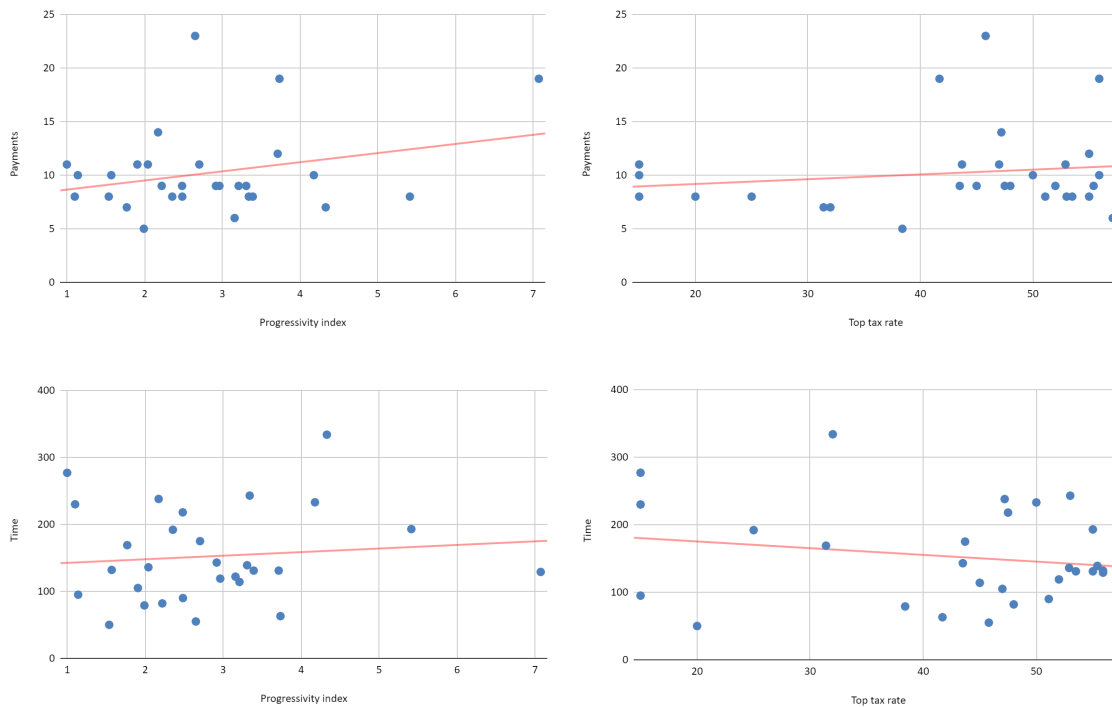
It is then worth considering the characteristics of the tax systems in Nordic and Baltic countries, as they rank better in these two indicators when compared to other EU members. Such tax systems combine income taxation with VAT, other indirect taxes and property taxes. The tax base is broad, meaning that it includes many items and, thus, the number of exceptions and deductibles is small (which might be one reason why filing tax declarations entails a smaller amount of time). Although tax liabilities at the personal level are high in Norway, Sweden and Finland, the progressivity schedule is rather flat, meaning that top tax rates apply to a broad range of taxpayers. Also, businesses tend to pay lower taxes as compared to other countries: the statutory corporate income tax rate in 2022 is 15.0% in Lithuania, 20.0% in Finland, Estonia and Latvia, 20.6% in Sweden, 22.0% in Norway<sup>16</sup>, thus values lower than the statutory rates observed in the four largest EU countries (which range from 25.0% in Spain up to 29.8% in Germany) and across the EU-27 countries (the mean rate is 21.2%). Estonia, in particular, is known for a very simplified tax system that relies on flat-rate taxes and heavy use of digital filing. These observations are merely suggestive, yet they point to a possible role also for the progressivity of a tax system, meaning that flatter (and therefore, easier) tax schedules may also be associated with lower compliance costs. This may affect unincorporated businesses, whose taxes are calculated at the level of the partner and thus, have to interact with the personal income tax declarations. Unincorporated businesses are company types more commonly adopted by smaller businesses, hence such relation between tax progressivity and tax compliance costs might be more relevant for them, as compared to larger (and thus, usually incorporated) companies.

Figure 4 compares previous figures on compliance time and payments against the top statutory personal tax rate, and against a tax progressivity index expressed as the difference between the top marginal tax rate (MTR) and the average tax rate (ATR), divided by the former:  $(MTR-ATR)/MTR$ . This progressivity index allows improved comparability across countries and is such that a fully linear tax

<sup>16</sup> OECD, 2022, *Statutory corporate income tax rate*, <https://stats.oecd.org/Index.aspx?QueryId=78166>, and European Commission, Directorate-General for Taxation and Customs Union TAXUD, 2022, *Data on Taxation*, [https://taxation-customs.ec.europa.eu/taxation-1/economic-analysis-taxation/data-taxation\\_en](https://taxation-customs.ec.europa.eu/taxation-1/economic-analysis-taxation/data-taxation_en), both accessed on 8/1/2023.

system with no progressivity produces an index equal to zero, while larger progressivity in the personal tax schedule produces an index larger than zero. Data on tax rates were obtained for 2018 from the OECD Taxing Wages database and are for 23 EU Member States, Australia, Canada, Japan, the UK and the US. As highlighted before, it is not the total level of taxation that causes compliance costs to rise, rather a more progressive tax schedule may be somewhat associated with larger compliance costs (although these simple correlations are only suggestive and would deserve further study by employing a proper multivariate regression model).

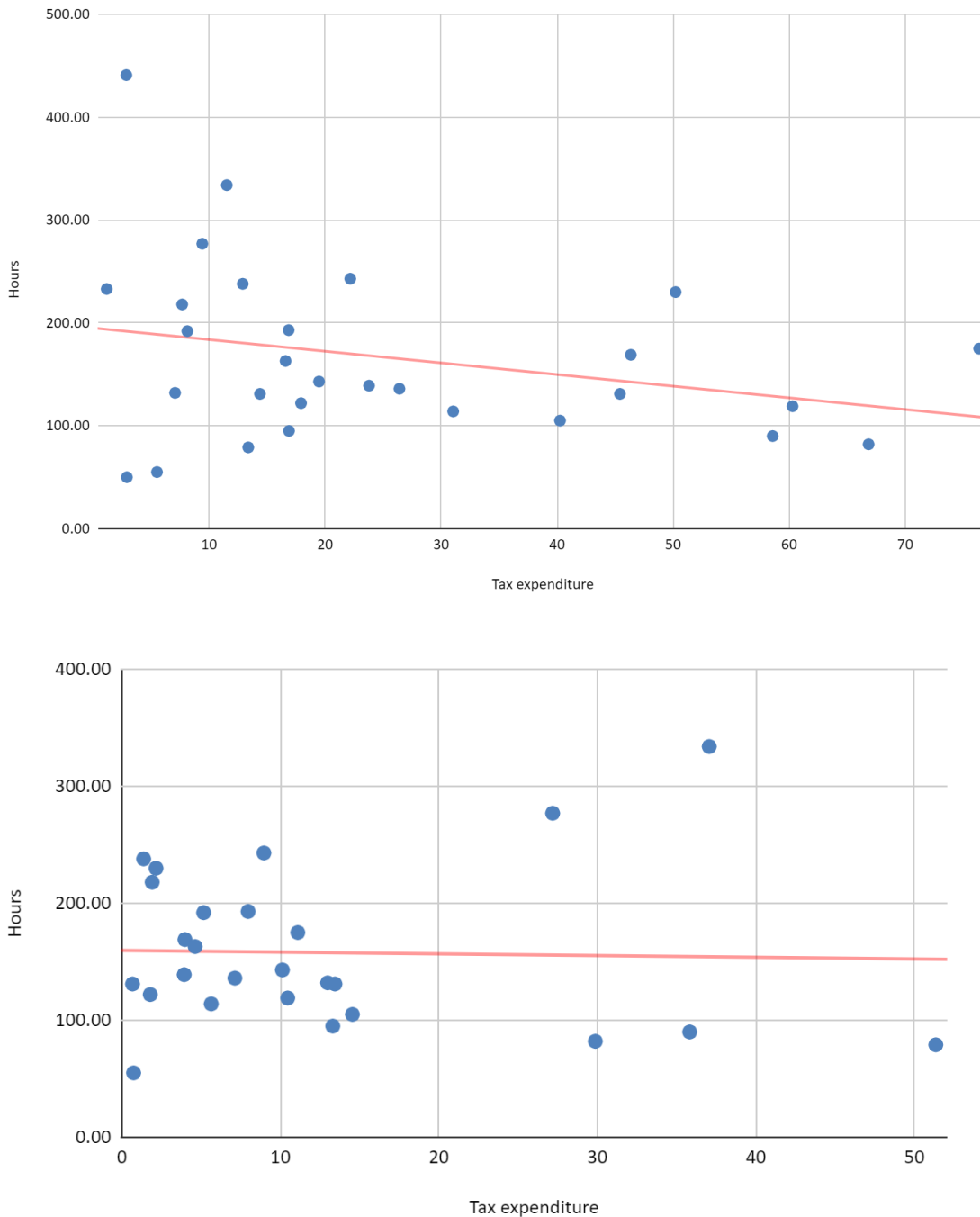
Figure 4: Comparison between payments and time to comply with tax obligations (for businesses), top statutory personal tax rates and progressivity (at the level of personal income taxation)



Source: Own elaborations based on data from the World Bank “Doing Business” and OECD Taxing Wages data, for 2018.

Another source of compliance costs can be the existence of exceptions to the standard tax base definition. So-called tax expenditures are benefits that reduce government revenue and the tax liability of the beneficiary. As tax expenditures are often associated with specific allowances, they may increase the complexity of a tax system, for example by requiring the beneficiaries to separately report and document earnings and expenses that fall under the exception. Figure 5 compares the World Bank’s time data against a measure of total tax expenditures. The latter was obtained from Redonda et al. (2022), for the year 2018 and for 25 EU members, Australia, Canada, the UK and the US. The lower graph only focuses on corporate income taxes and employs a subset of the previously mentioned countries, for which data are available. Figures are expressed as percentage of lost tax revenues in comparison to a hypothetical case without any tax expenditures. Naked-eye observation detects no meaningful correlation between these quantities. Also interestingly, Nordic and Baltic countries are found on both extremes of the spectrum, some on the very high side (e.g., Finland with 58.57% of lost revenues to tax expenditure) and some on the very low side (e.g., Estonia with just 2.92%). A better comparison would be obtained using measures for the number of distinct tax expenditures available (instead of the overall amount of lost revenues to tax expenditures) as these would better capture the degree of complexity of a tax system, however to these authors’ knowledge, such data are not readily available.

Figure 5: Comparison between time to comply with tax obligations (for businesses) and the percentage of foregone revenues due to tax expenditures



Source: Own elaborations based on data from the World Bank “Doing Business” and Redonda et al., 2022.

Note: The upper graph reports figures for the overall tax expenditure; the lower graph only for corporate tax expenditures.

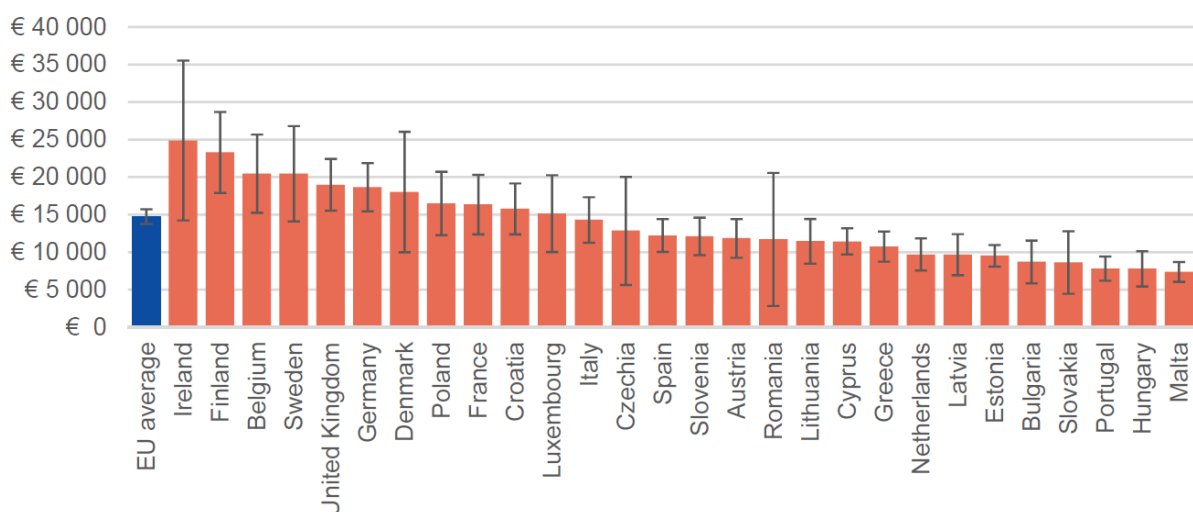
We now turn to estimates of tax compliance costs based on survey data. As anticipated, our main sources are the two studies performed by KPMG in 2018 and by VVA/KPMG in 2022. Both studies rely on a stratified random sample of enterprises, designed to obtain a representation of private tax compliance costs for enterprises of different sizes. Both of them provide results in the form of costs expressed in Euros, either as absolute costs, or as ratios of costs on turnover or collected tax revenues.

The use of turnover as a normalising factor is often employed to improve comparability across different firms. It allows to determine a value for compliance costs expressed as a percentage of turnover, thus allowing to infer how such costs grow with firm size. A cautionary advice, though, is necessary when using cost-to-turnover measures to perform cross-country comparisons. Because each industrial sector generates a different average return on sales and each country's economy has a different sectoral composition, cross-country variation in cost-to-turnover measures can be inflated or deflated by such heterogeneous composition, particularly when looking at compliance costs associated with corporate income taxes and wage-related taxes. Thus, absolute cost measures generally provide a more reliable comparison across countries. Similarly, cost-to-revenues measures obtain insight as to how much of tax revenues are dissipated in the form of compliance costs. But, because countries have different levels of taxation, levels and types of tax expenditures for businesses and often privileged tax regimes for SMEs or specific sectors, cross-country comparisons may again be affected.

Figure 6 is reproduced from the VVA/KPMG (2022) study. It reports compliance costs in absolute values for the 28 EU countries (including the UK). The average total tax compliance costs are reported at EUR 14,745. Figure 7 and Figure 8 report the same values as a percentage of turnover and of tax revenues, respectively. Total tax compliance costs are quantified at a mean of 1.9% of turnover and range most commonly between 1% and 2% of turnover (considering the median of the individual countries). Regarding percentage of tax revenue, the mean costs amount to slightly below 30%, while most countries reveal median ratios between 10% and 30%.

A comparison of these figures highlights the different information conveyed by the measure used for compliance cost. As an example, Sweden ranks among the countries with the largest compliance costs when looking at absolute values or at shares over turnover, but it ranks on the contrary as the sixth smallest-cost country when looking at compliance cost shares of tax revenue. Similarly, Malta ranks among the countries with lowest compliance costs when looking at both absolute measures and shares of tax revenue, while it is close to the median when using shares of turnover. These observations, however, may be impacted by issues of low sample size in some countries and the wage differentials across the countries and thus data should be interpreted with caution.

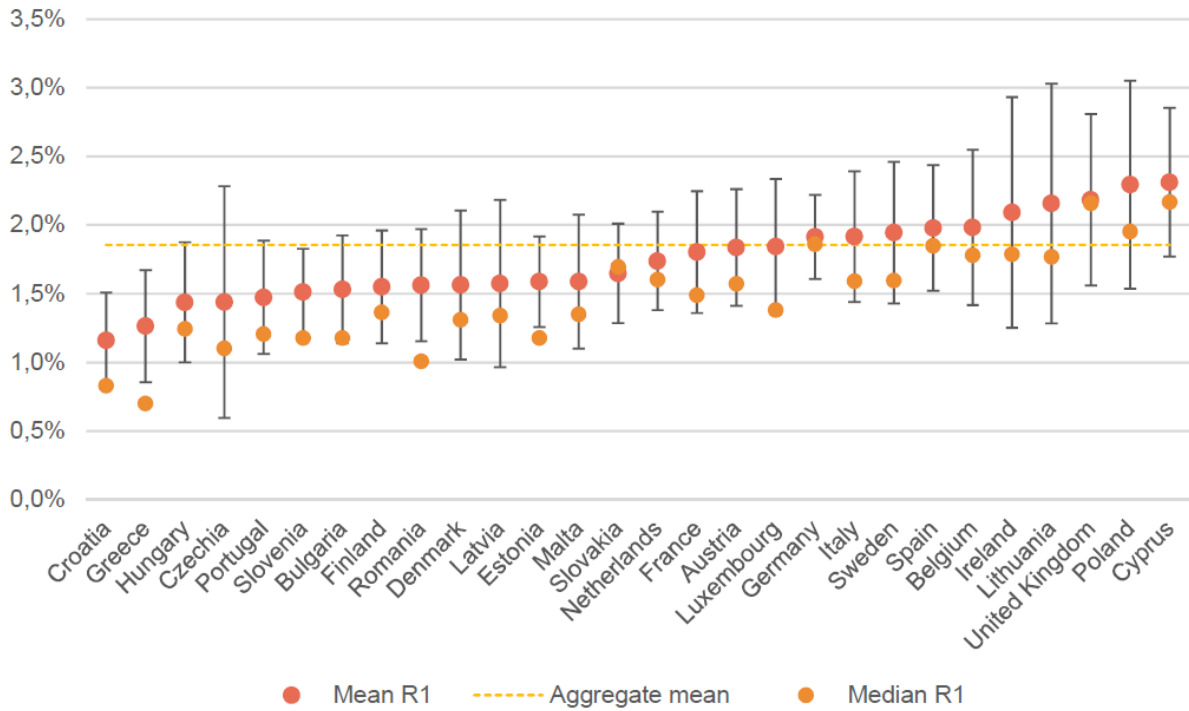
Figure 6: Cross-country comparison of tax compliance costs for businesses in absolute values



Source: VVA/KPMG (2022), based on 2,479 sampled firms.

Note: The black brackets indicate confidence intervals (95%).

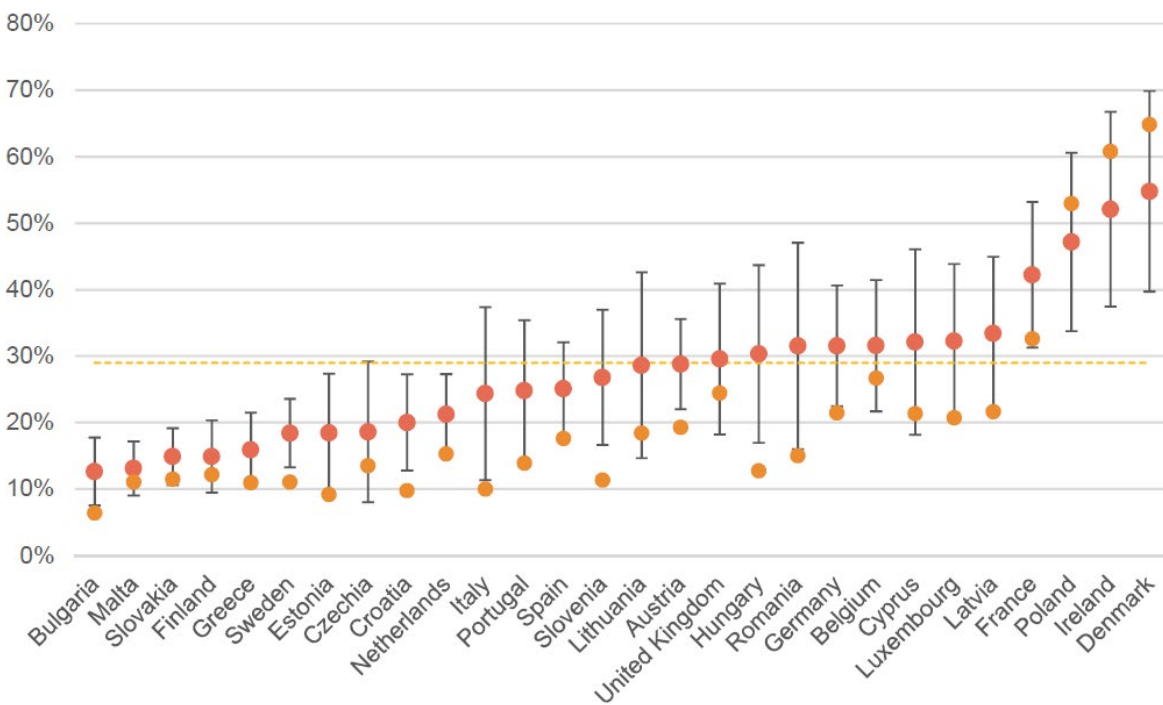
Figure 7: Cross-country comparison of corporate tax compliance costs as percentage of turnover (cost-to-turnover)



Source: VVA/KPMG (2022), based on 2,480 sampled firms.

Note: The black brackets indicate confidence intervals (95%). R1 indicates the ratio of compliance costs as percentage of turnover.

Figure 8: Cross-country comparison of tax compliance costs for businesses as percentage of tax revenue collected (cost-to-revenue)



Source: VVA/KPMG (2022), based on 2,201 sampled firms.

Note: The black brackets indicate confidence intervals (95%).

Given that different measures produce different rankings, the question is which measure provides the best term of comparison across countries. Comparisons between absolute values are polluted by differences in average firm size. Shares of turnover are affected by sectoral compositions, as already stated before. Finally, shares of tax revenues may be affected by both size and sectoral composition, if the tax system treats SMEs and/or companies operating in specific sectors with special tax treatment. It is to note that such problems are avoided by the World Bank's "Doing Business" methodology illustrated earlier in this chapter, as the case scenario presented to local tax experts is the same in every surveyed country and thus, is not affected by the composition of the sample or the underlying national population of enterprises. Thus, in order to identify the best-performing countries (defined as those with the lowest tax compliance costs) the World Bank Doing Business indicators probably provide the most robust approach. One can observe that the rankings offered by VVA/KPMG (2022) (and by other surveys based on similar methodology) and by the World Bank database differ significantly. For example, Hungary ranks as one of the countries with the largest number of payments and time spent for compliance according to the World Bank Doing Business data, while it ranks as one of the countries with the smallest level of both absolute value and share-of-turnover costs based on the VVA/KPMG (2022) data. We conclude that such rankings are not neutral with respect to the choice of the indicator used and we identify the World Bank Doing Business methodology as the one providing the most neutral and thus dependable criteria to establish which countries experience larger private tax compliance costs.

A partial solution to the listed problems faced when using survey-based data for performing cross-country comparisons is to divide firms into size classes, defined in the same way for the countries to compare. In this way, values for compliance costs will express an average cost for a more homogeneous term of comparison, that is, for enterprises with a similar size. This approach will be discussed in the next chapter.

Notwithstanding cross-country comparisons, a different question is: are private tax compliance costs of a significant amount/magnitude to firms? The VVA/KPMG (2022) data report an EU-average of about EUR 15,000 per year, or slightly less than 2% of turnover, which is certainly significant. Looking again at the World Bank data to obtain a different source for estimation, the average number of hours spent for compliance in the 27 EU Member States and Norway is about 170 hours per year. In order to gauge a monetary equivalent value for this amount of hours, as an example one may consider the typical hourly wage for tax consultant in Germany which, according to the ordinance on the remuneration of tax consultants (*Steuerberatervergütungsverordnung*) should range between EUR 60 and 150 per hour (that is the range of hourly tariffs for a certified tax consultant [*Steuerberater*]).<sup>17</sup> These examples would translate, given an estimated number of hours for Germany by the World Bank dataset equal to 218, into a yearly cost lost to compliance activities between EUR 13,080 and 32,700, or if considering the EU-27 average of 170 hours, to costs between EUR 10,200 and 25,500. Such estimates, albeit rough and very much approximate (not least because hourly tariffs may vary greatly across countries), suggest that private tax compliance can constitute a sizable source of additional costs for businesses.

As already stated in Chapter 2.1, compliance costs not only stem from preparation and filing activities, but also from *ex post* activities such as those arising from tax audits and litigations. Different national laws define tax crimes differently: as reported in Rasmouki et al. (2019) based on focus groups for selected European countries (these are: Austria, Czech Republic, Estonia, Finland, Germany, Ireland, Italy, Malta, Portugal and the United Kingdom), the treatment of "tax crimes" is very heterogeneous. For instance, while some countries include such offences in the penal code, others have *ad hoc* laws;

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<sup>17</sup> Cf. §13, Vergütungsverordnung für Steuerberater, Steuerbevollmächtigte und Berufsausübungsgesellschaften (Steuerberatervergütungsverordnung - StBVV), <https://www.gesetze-im-internet.de/stbgebv/BJNR014420981.html>, accessed 8/1/2022.

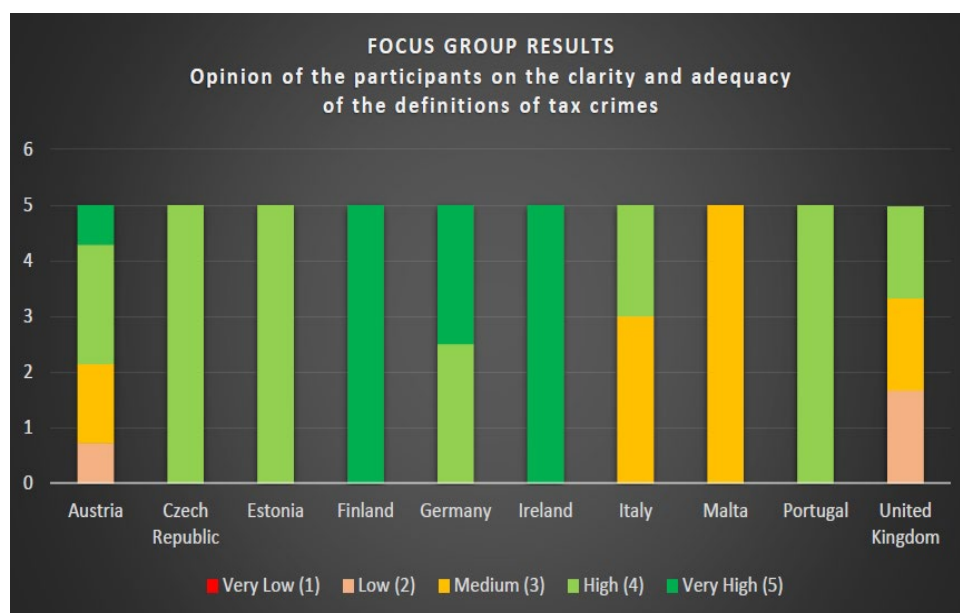
the very definitions of what constitutes a tax offence differ substantially (to get an idea of these differences refer to Figure 9); finally, punishments are also very heterogeneous. Rasmouki et al. (2019, p. 19) summarise the observed situation as follows: *“Generally, the legislation contains no definition of tax crime per se but prescribes a list of behaviours that are prohibited. Each State has discretion in determining what conduct can constitute a tax crime. In practice, there are profound differences between one state and another.”*

As far as tax compliance costs and their economic effects are concerned, a few aspects need to be discussed:

- Ambiguity in the definitions provided by the law is potentially harmful in that it introduces a source of riskiness due to subjective interpretations and applications of the rule of law.
- The inclusion of a broader set of behaviours in the definition of what constitutes a tax crime (e.g. by setting low quantitative thresholds to define what kind of activity, or subject, falls under criminal law and what is only fined under tax or administrative law) implies larger potential costs in case of a compliance activity gone wrong, e.g. because of mistakes made at the time of tax filing.
- Different definitions and rules across countries may imply additional compliance costs for enterprises who engage in international trade.

Taken together, these three aspects may significantly affect compliance costs faced by private businesses. Thus, when thinking about best-case examples of successful national tax systems with respect to tax compliance, it is not enough to analyse tax laws and rules in isolation, rather it is the law and regulation system as a whole that, together with characteristics of production and of the economic system, determine what constitutes a “good” or “bad” outcome. As an aside, looking at figures represented in Figure 9, it is not by chance that the Nordic countries represented therein (Estonia and Finland) display on average a good, or very good, opinion over the clarity of their rules related to tax crimes, as these are also the countries we found to produce, on average, the lowest compliance costs measured as cost-to-revenues or as number of required hours.

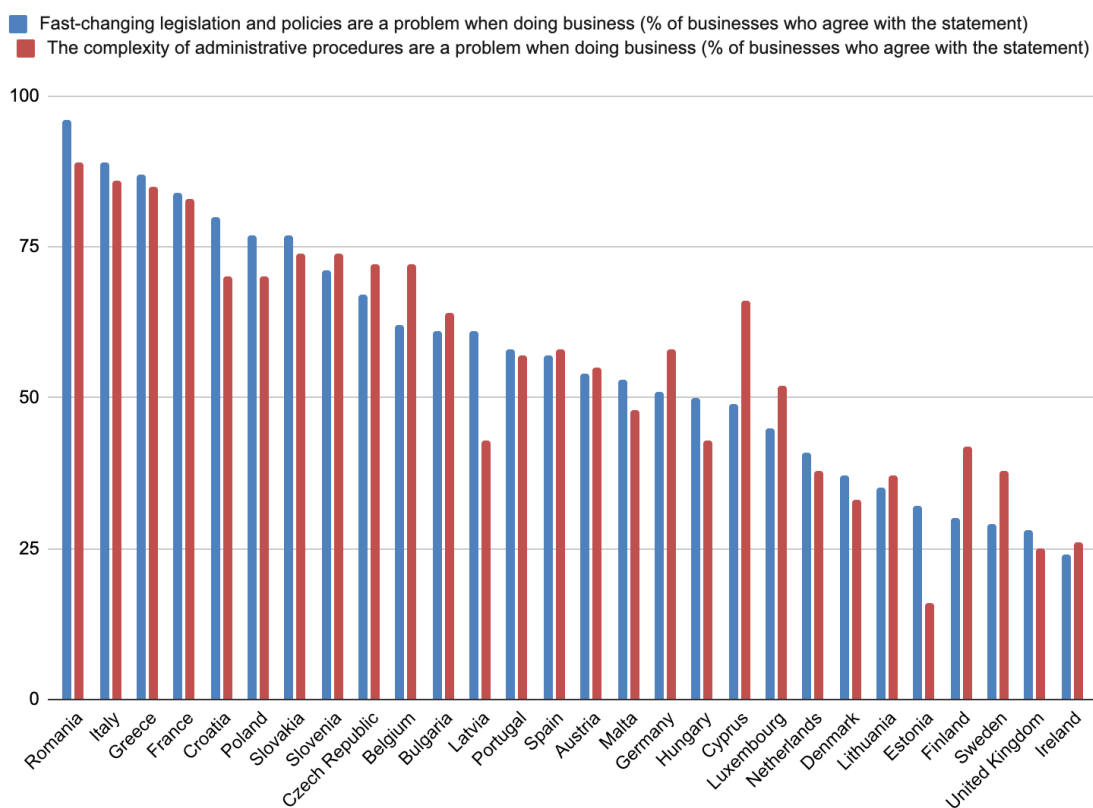
Figure 9: Cross-country comparison of reported opinions by focus groups on the clarity and adequacy of tax crime definitions



Source: Rasmouki et al., 2019, based on focus groups of 12 experts each on average.

The annual report “SME performance review” is prepared by the European Commission to “monitor and assess countries’ progress in implementing the SME strategy and the Small Business Act (SBA)”.<sup>18</sup> It summarises many indicators that are believed to describe, taken together, the current state of affairs with respect to SMEs in each EU country. In particular, we are interested in two indicators that the SME performance review has taken from the Flash Eurobarometer “Businesses’ attitudes towards corruption in the EU”.<sup>19</sup> The two indicators measure, out of a sample of enterprises, the share of respondents agreeing with the statement “Fast-changing legislation and policies are a problem when doing business”, and the same measure for the statement “The complexity of administrative procedures are a problem when doing business”. These two indicators are interesting to further identify best-case examples of EU countries, as they are obviously related to mentioned risks associated with a tax system that changes frequently, and to a tax system that is hard to interact with because of high complexity. Figure 10 reports results, ordered by the first question. The role of frequently-changing tax rules was also mentioned recently by Gerhard Huemer (Director for Economic and Fiscal Policy at SMEUnited) in a Public Hearing of the FISC subcommittee on Tax Matters (European Parliament, held on the 25 January 2023), where he highlighted that “companies do not like changes in tax regimes” because of the “uncertainty and adaption costs” they entail.

Figure 10: Cross-country comparison of reported opinions by sampled enterprises



Source: European Commission, Directorate-General for Communication, 2019, *Flash Eurobarometer 482: Businesses’ attitudes towards corruption in the EU*, version v1.00. [http://data.europa.eu/88u/dataset/S2248\\_482\\_ENG](http://data.europa.eu/88u/dataset/S2248_482_ENG).

<sup>18</sup> See: European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, no date, *SME performance review*, [https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-performance-review\\_en](https://single-market-economy.ec.europa.eu/smes/sme-strategy/sme-performance-review_en), accessed on 20/12/2022.

<sup>19</sup> The Eurobarometer is a publication by the European Commission, Directorate-General for Communication, see European Commission, Directorate-General for Communication, 2019, *Flash Eurobarometer 482: Businesses’ attitudes towards corruption in the EU*, version v1.00, [http://data.europa.eu/88u/dataset/S2248\\_482\\_ENG](http://data.europa.eu/88u/dataset/S2248_482_ENG), accessed on 20/12/2022.

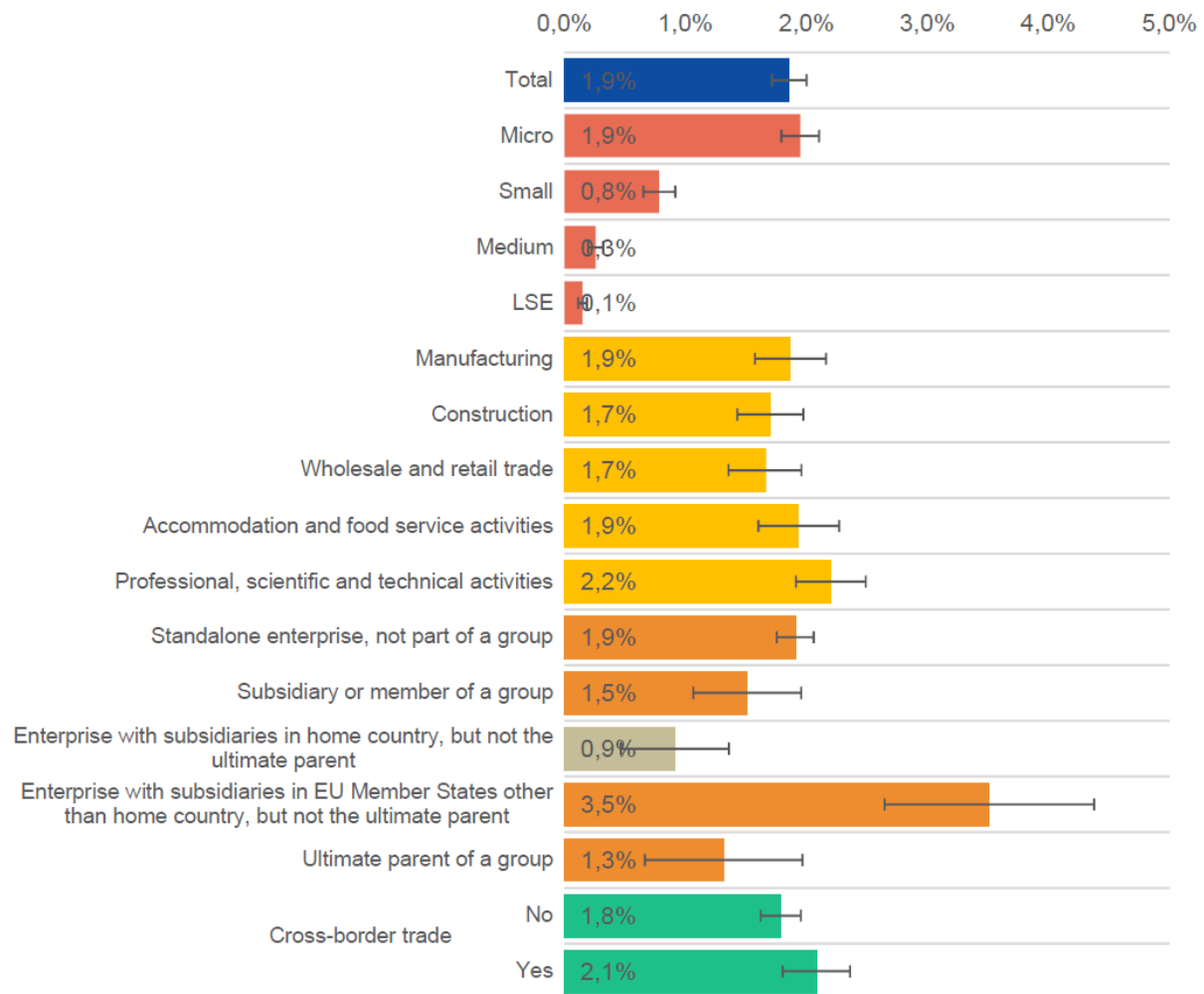
There are some interesting lessons to learn from these figures. First, the two series from the Flash Eurobarometer are very much correlated, meaning that businesses in those countries where they experience high volatility of the regulatory context, also on average experience a larger degree of complexity. This observation suggests that there might be a general attitude of policymakers, or a general approach, that drives policy into performing many frequent reforms versus a different approach where fewer, broader reforms are introduced. Alternatively, there might be a causal link between having many frequent policy changes which would cause the regulation to become more complex to deal with, or vice versa, an existing high degree of complexity might need frequent reforms in order to keep the regulatory system up-to-date with the changing economic landscape. Whatever the causal direction and the nature of such positive correlation, we detect (again) a cluster of EU members (that we may identify in the Nordic and Baltic countries) which are reported with low figures for both questions.

A distinct discussion needs to be made for Ireland, which often appears on both extremes of the measures we presented so far. The reported compliance costs by the VVA/KPMG (2022) study for Ireland are the largest in absolute value, and one of the largest when expressed as shares of tax revenue collected. At the same time, Ireland appears among the best-performers in terms of hours needed (from the World Bank Doing Business database), clarity and adequacy of tax crime laws (from Rasmouki et al., 2019) and of perceived problems related to reform frequency and complexity (from the Flash Eurobarometer data). The problem with Ireland, and similarly with other small countries (such as Cyprus, Luxembourg and Malta) is methodological and is caused by the possible presence of many Special Purpose Vehicle (SPV) corporations. This problem is well known and has been discussed already in the literature, for example in the context of the calibration of the CORTAX model (e.g., see Álvarez-Martínez et al., 2016). The presence of SPVs pollutes aggregate data and may provide a distorted representation of a country's real situation, as their characteristics are hardly similar to those of domestic enterprises (even when comparing firms of similar size). For the same reason, such SPVs may be part of a sample of surveyed enterprises and thus, also affect survey data results. Therefore, caution is needed when comparing figures for these countries against other countries (where the relative weight of SPVs is, most likely, much smaller and can thus be ignored).

### 3.2. Private tax compliance costs by enterprise size

The VVA/KPMG (2022) study reports that across European countries, variation across sectors is found to affect compliance costs only to a very limited extent. On the contrary, the size of firms is associated with important differences. Figure 11 reports the mean compliance cost expressed as a share of turnover, for selected groups of firms, broken down by size, sector and firm characteristics. Belonging to different industrial sectors (yellow bars) does not affect such mean values significantly (the mean oscillates between -0.2% and +0.3% percentage points in comparison to the mean value for the entire sample, which is 1.9%). However, firm size (red bars) displays the greatest inter-group variation ranging from as low as 0.1% for large enterprises, to 1.9% for micro enterprises. Also, being part of a company group (comparing the upper two orange bars) seems on average associated with smaller compliance costs, which would also point to smaller firms (who are more likely to be stand-alone companies compared to large enterprises) being burdened by larger relative compliance costs. However, with regard to company groups, there seems to be considerable variation in the impact of compliance costs comparing subsidiaries of company groups in vs. outside the home country and parents of a group (considering the three bars following the upper two orange bars). Thus, on average, belonging to a company group does not imply a significant change in compliance costs

Figure 11: Comparison of compliance costs for businesses as percentage of turnover, mean value by group



Source: VVA/KPMG (2022), based on 2,479 sampled firms.

Because inter-group variation among size-based groups appears so significant, we now turn to specifically address how compliance costs vary by firm size. The general finding is that compliance costs grow with the enterprise size, but less than proportionally. This implies that larger enterprises on average face smaller relative costs. Such a negative correlation was found also in several older, single-country studies or studies based on a small number of countries. For example, Eichfelder and Vaillancourt (2014) report a gap between mean cost-to-turnover ratios for large firms in a number of studies published between 1984 and 2014, that are often ten times smaller than those obtained by the same study for small firms. OECD (2001) analysed 11 OECD countries and found estimates between 0.4% and 7.0% of turnover for small enterprises, while about 0.4% and 3.4% for large enterprises. The European Commission (2004) found, for a sample of 700 companies in 14 EU Member States, a cost-to-turnover estimate of 2.6% for smaller firms but only of 0.02% for large firms. It seems therefore that the pattern is verified and corroborated by a large number of replication studies: small enterprises pay a higher relative cost for tax compliance activities.

The finding that tax compliance places a disproportionately greater burden on SMEs should be contrasted against both the literature on entrepreneurial activity and to current policy practice. With regard to the former, at least since the work of Schumpeter (1934) a commonly held belief is that a healthy ecosystem of start-ups is a fundamental ingredient that fosters aggregate innovation through

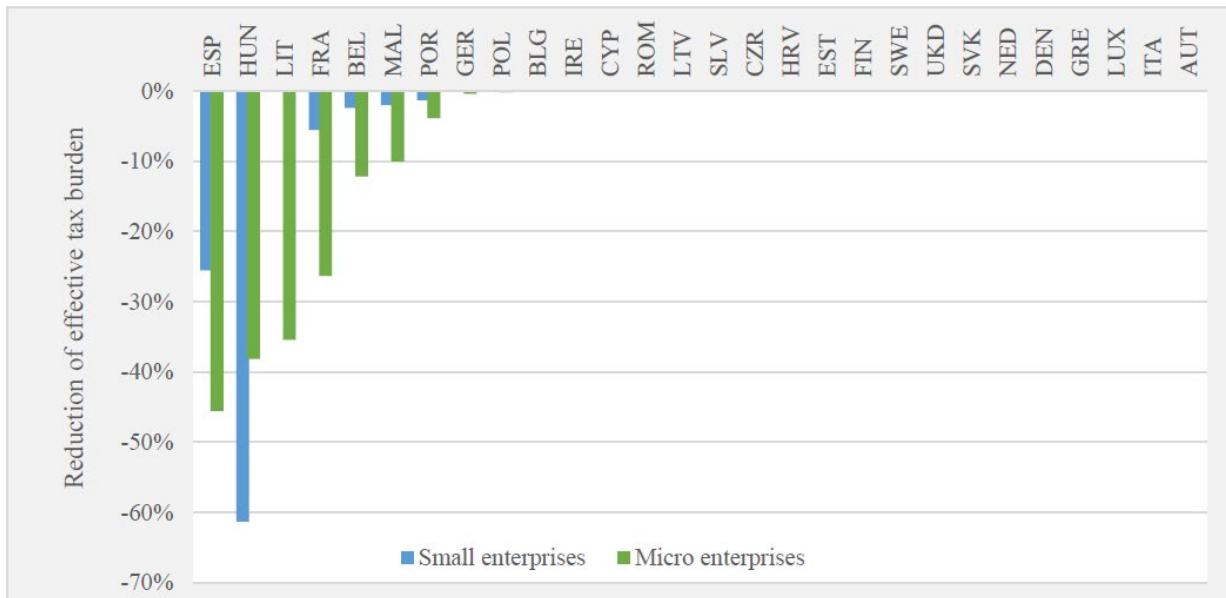
“creative destruction”, constantly challenging incumbent enterprises and giving birth to more radical innovations that may be valuable for society at large. The empirical literature indeed finds (e.g., Coad et al., 2016) that younger firms on average perform riskier research and development (R&D) activities than more mature firms. While it is firm age, more than size, that is found associated with larger riskiness, younger firms are also usually smaller in size thus belonging to the SME category. A reflection of this line of thinking is the widespread diffusion of policies aimed at supporting young and/or small businesses via a mix of subsidies, tax allowances and simplified requirements (not least with respect to tax compliance obligations). The empirical finding we have just summarised, that smaller firms face the largest burden from tax compliance, goes in the opposite direction and questions whether other policies designed for supporting SMEs are powerful enough to counteract both the effects caused by such policy-induced costs and the natural barriers faced by small businesses, namely credit constraints, uncertainty that is intrinsic to innovation and entry barriers to established markets. Put in other words, small additional costs burdening young ventures (due to tax compliance or to other causes) may bear a large impact on the economy as a whole in the long run because of the special role that start-ups play in dynamically generating and diffusing new ideas, approaches and technologies. It is to note, though, that according to the European Commission (2015), SMEs account for about 99.8% of all businesses in the EU and absorb about 67.0% of total employment, where a SME is defined as an enterprise with less than 250 employees and with a maximum turnover of EUR 50 million (or alternatively, with a maximum total assets of EUR 43 million). Thus, the effects of compliance costs on SMEs may have a large impact on the economy as a whole, even disregarding the role of SMEs as engines of innovation.

In Bergner et al. (2017) the authors examine the tax burden for SMEs across the EU-28 member states in 2015. Their methodology is based on the use of a microsimulation model called European Tax Analyzer that computes, separately for each country, effective average tax burdens for a representative enterprise. Representative enterprises are micro, small, medium and large and are defined based on financial data published in the AMADEUS commercial dataset distributed by Bureau van Dijk.<sup>20</sup> The types of tax incentives included in the calculations consider both firm-level incentives (such as accelerated depreciation, tax allowances and credits, tax exemptions and special regimes) and shareholder-level incentives. It is to note that the representative enterprises are the same for all 28 studied countries. Therefore, when comparing them one to one, differences in value are only due to the effect of the tax code (which makes this methodology closer to the World Bank’s Doing Business methodology previously discussed, as it, too, rules out differences due to the composition of the national populations of firms). They report tax incentives for micro enterprises in 9 countries, 6 for small enterprises and 3 for medium-sized enterprises, with countries providing especially generous incentives being Spain, Hungary, Lithuania, France, Belgium, Malta and Portugal. Most incentives, and the most generous ones, are found for micro enterprises. These results are summarised, for small and micro enterprises, in Figure 12 which reports the reduction in effective tax burdens computed using the European Tax Analyzer.

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<sup>20</sup> The classification as either micro, small, medium-sized or large enterprise is made according to the definition used by the European Commission. Firms in the AMADEUS dataset are grouped as such and then, average financial values are derived to generate a representative firm.

Figure 12: Reduction of the effective tax burden for small and micro enterprises due to SME incentives (simulated figures)



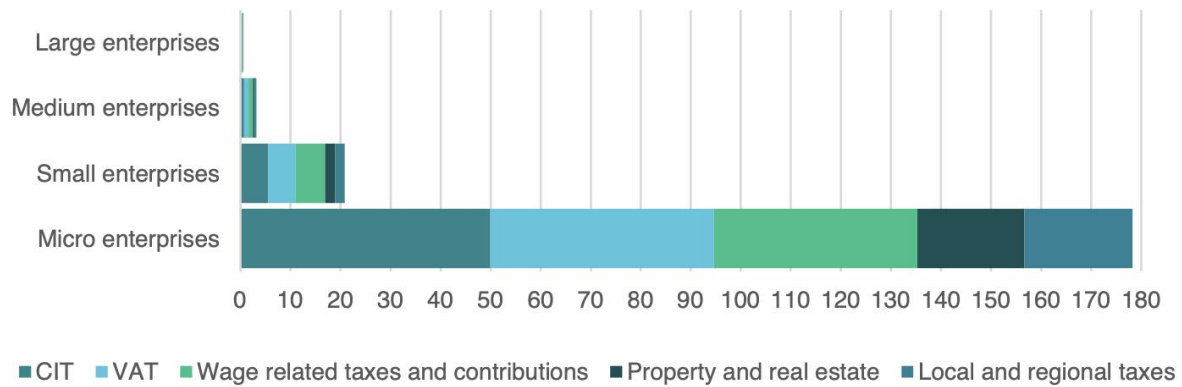
Source: Bergner et al., 2017.

The data in Bergner et al. (2017) show that few EU members make intensive use of such tax incentives for SMEs. Comparing this list with the data shown earlier and reporting cross-country comparisons of private tax compliance costs, we can see that the correlation with the ranking of countries featuring the largest compliance costs (we refer especially to Figure 6 reporting compliance costs data as absolute values) is, at best, very weak. This suggests that the existence of tax incentives for SMEs does not seem to be driven by a desire to compensate for the disproportionately large compliance costs burdening SMEs, rather they might stem from other policy objectives, related to fostering a country's competitiveness and supporting younger enterprises during their initial phases. The existence of many different tax rules for SMEs can play a role in increasing compliance costs in some countries (especially in France, Hungary and Spain), but it does not appear to be the main source for such costs when looking at all EU countries.

### 3.3. Private tax compliance costs for different types of taxes

In the 27 EU Member States plus the UK, the total amount of tax compliance costs is estimated at EUR 204 billion equalling 1.3% of the respective GDP (VVA/KPMG 2022). By far the largest share of the costs (87%) are borne by micro companies, followed by small companies (10%). Based on Figure 13, corporate income taxes ("CIT"), value added taxes ("VAT") and wage-related taxes and contributions seem to represent the largest share of the total tax compliance costs on the macroeconomic level, yet property and real estate taxes and local and regional taxes also play a significant role.

Figure 13: Total (private) tax compliance costs of enterprises in their home countries by size and cost type (in EUR billion)

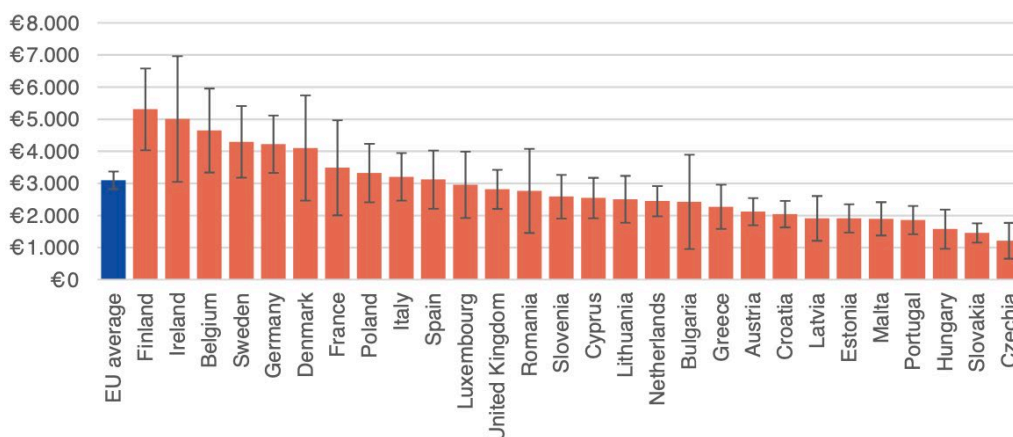


Source: VVA/KPMG (2022), based on 2,479 sampled firms.

Based on the VVA/KPMG (2022) study a positive correlation of tax compliance costs and enterprise size is obvious. The average total tax compliance costs are reported at EUR 33,917 for large enterprises and EUR 13,897 for micro companies (illustrated in Figure 16 that is reproduced from VVA/KPMG, 2022). This correlation is generally also found regarding different types of tax compliance costs.

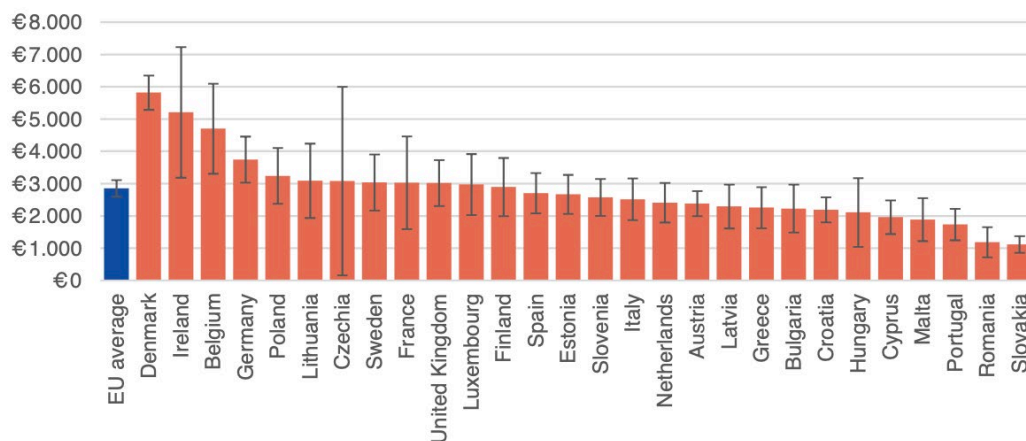
The 2018 KPMG study identified value added taxes (“VAT”), corporate income taxes (“CIT”), wage-related taxes and contributions (“wage”), property and real estate taxes (“property”) and local and regional taxes (“local”) to put the highest tax burden on companies. Regarding CIT and VAT, the study reports estimates of absolute tax compliance cost for different countries. For CIT, a weighted average in the amount of EUR 3,097 results across all EU-28 countries. This represents about 21% of the total compliance costs faced by EU companies (cf. Chapter 3.1). The same four countries as in the top total compliance cost ranking are found to show the highest average CIT compliance cost (see Figure 14): Finland, Ireland, Belgium and Sweden (followed by Germany and Denmark for CIT), while Portugal, Hungary, Slovakia and Czechia reveal both lowest average CIT compliance costs and lowest average total compliance costs (see Figure 6 above).

Figure 14: Cross-country comparison of (private) corporate income tax compliance costs for businesses in absolute values



Source: VVA/KPMG (2022), based on 2,477 sampled firms.

Figure 15: Cross-country comparison of (private) value added tax compliance costs for businesses in absolute values



Source: VVA/KPMG (2022), based on 2,479 sampled firms.

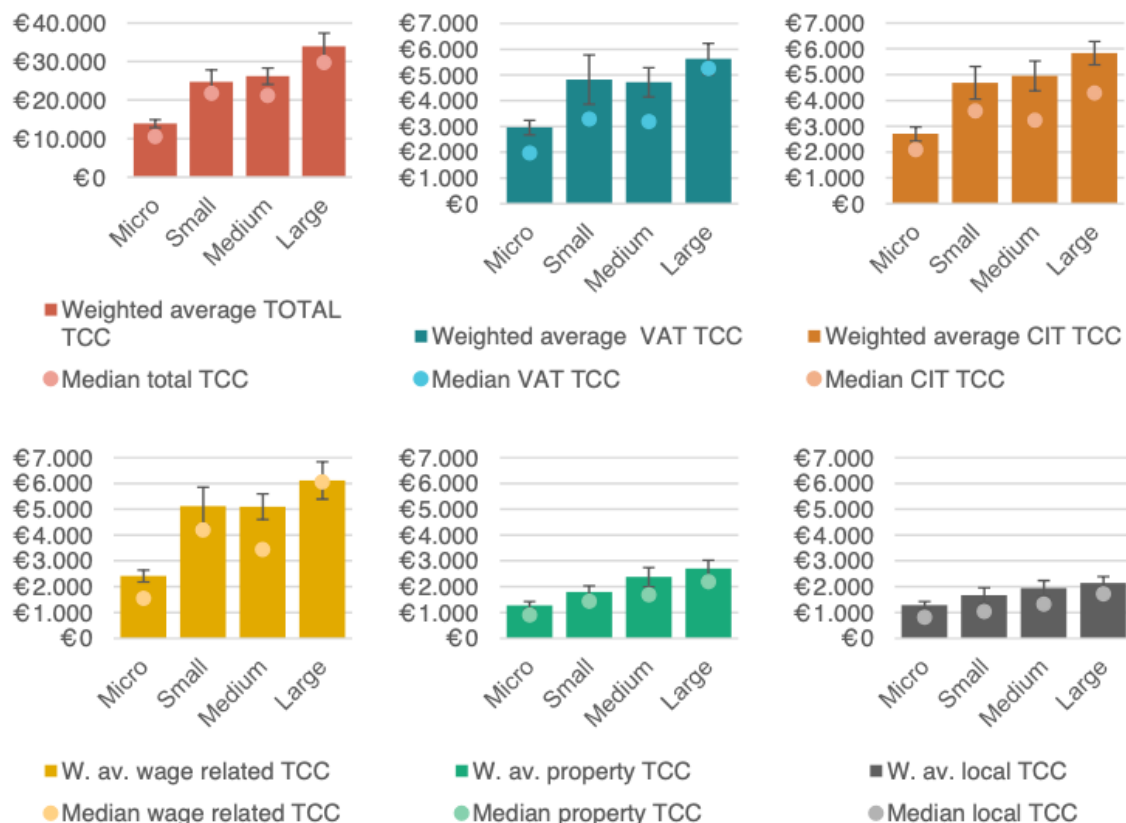
With regard to VAT compliance cost, we observe only a slightly different picture. The weighted average VAT compliance costs across the EU countries are only slightly lower than the CIT compliance cost – with EUR 2,853 they make up around 19% of the total EU average and thus only 2 percentage points below the CIT compliance costs. The countries ranking highest only partially comprise the same ones as for CIT, namely only Ireland and Belgium, while Germany and Denmark now range among the top four countries. Portugal and Slovakia are – as in the CIT ranking – found among the countries with the lowest average VAT compliance costs. Nevertheless, and as mentioned above, some shortcomings regarding the data may limit the meaningfulness of the results.

According to VVA/KPMG (2022) compliance costs for VAT, CIT and wage-related taxes seem to represent the major types of tax compliance costs that private businesses face. This can be seen in the sample that reports the compliance cost for different sizes of companies. All three types of taxes show similar absolute average amounts: from a range of about EUR 2,000 to EUR 3,000 for micro enterprises to a range of about EUR 5,600 to slightly more than EUR 6,000 for large enterprises for each of the three types of taxes (see the two top right charts and the bottom left chart of Figure 16, where “TCC” stands for tax compliance costs).

On CIT and VAT compliance, micro enterprises spend a relatively higher amount than large enterprises: Out of the total average tax compliance costs, micro enterprises spend about 19% on CIT and 21% on VAT compliance, while large enterprises only spend about 17% on the same types of taxes each. Thus, for the other types of taxes, the share seems to increase with the size of the enterprise. For example, for the third among the three major types of tax compliance costs, the wage-related taxes, micro enterprises spend about 17% while large enterprises spend about 18% of the total average tax compliance costs.

Compliance costs regarding property and real estate taxes and local and regional taxes are observed in the amount of a bit more than EUR 1,000 for micro enterprises and per type of tax. Large enterprises show compliance costs regarding these types of taxes of about EUR 2,000 to EUR 3,000.

Figure 16: Comparison of (private) tax compliance costs in absolute value for businesses by different types of taxes and enterprise size



Source: VVA/KPMG (2022), based on 2,479 sampled firms (all taxes), while the sample sizes for the other types of taxes were 2,477 (VAT), 2,479 (CIT), 2,479 (wage related), 2,146 (property and real estate), 2,477 (local and regional).

Outsourcing tax compliance activities in contrast to internally handling tax compliance also seems to be a driver of tax compliance costs for companies. Micro enterprises spend on average EUR 10,588 by internalising compliance tasks while they spend on average EUR 13,846 and thus about 31% more by fully or partly outsourcing compliance tasks. This difference is even stronger for large enterprises: They spend EUR 15,704 on average on internal tax compliance while approximately 93% more (EUR 30,227) on fully or partly outsourced tax compliance activities. The 2022 VVA/KPMG study reports a major share of companies that outsource tax compliance activities. Regarding different types of taxes, the share of companies outsourcing tax compliance is even stronger for CIT than for VAT and across all different size categories (see Figure 17).

Figure 17: Share of enterprises handling tax compliance internally vs. outsourcing it

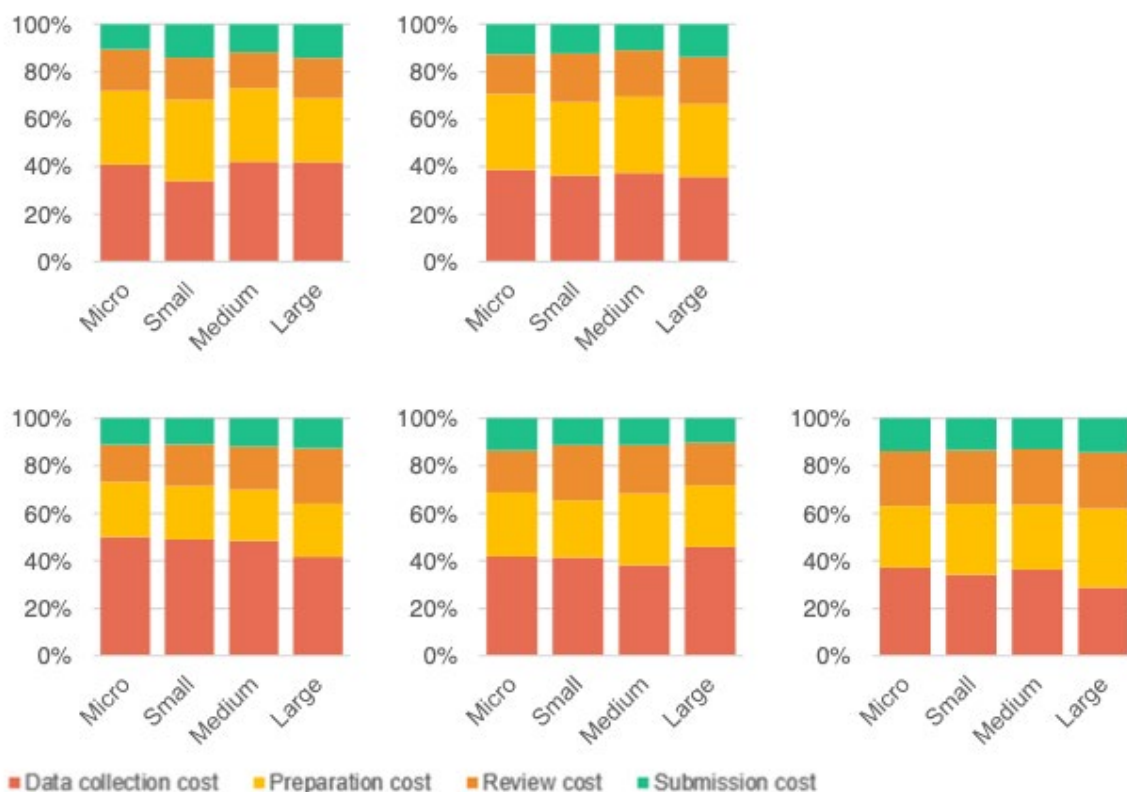
Handling tax compliance obligations ...	VAT				CIT			
	Micro	Small	Medium	LSE	Micro	Small	Medium	LSE
Internally	26%	24%	33%	28%	16%	20%	29%	24%
Outsourced (Full+Partly)	74%	76%	67%	72%	84%	80%	71%	76%

Source: VVA/KPMG (2022), based on 2,479 sampled firms.

With regard to internal tax compliance activities the 2022 VVA/KPMG study distinguishes between different information obligations and thus different types of activity to be conducted: data collection,

preparation of the tax declaration, review of the tax declaration and submitting the tax declaration. Across the different types of taxes surveyed (CIT, VAT, wage-related taxes, property-related taxes and local and regional taxes), data collection generally represents the most costly activity across the different sizes of enterprises (with some exception for large enterprises and local/regional taxes where preparation costs make up the largest share in tax compliance costs) (see Figure 18). This is followed by the preparation of the tax declaration as the generally second most costly activity. Submitting the tax declaration itself implies the least costly activity. For local/regional taxes, however, preparation and review seem to take a relatively larger share of total internal tax compliance costs. The 2022 VVA/KPMG study attributes this to the larger variety found in how these taxes are designed and thus varying information requirements.

Figure 18: Share of different internal compliance activities by enterprise size

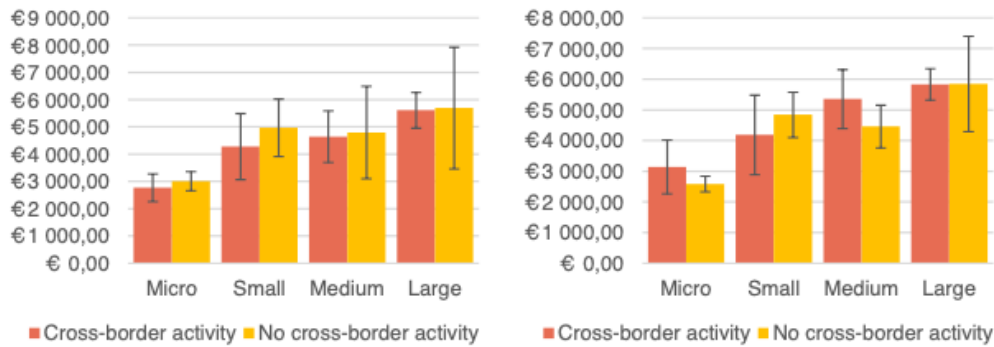


Source: VVA/KPMG (2022), based on a sample size of 2,112 (CIT), 2,479 (VAT), 2,578 (wage related, property related, local and regional), excluding outsourcing costs.

Note: CIT (upper left), VAT (upper right), wage-related taxes and contributions (lower left), property-related taxes (lower middle), local and regional taxes (lower right).

The empirical evidence regarding tax compliance costs of companies facing cross-border activities will be dealt with in Chapter 3.4. Regarding different types of taxes (CIT and VAT), cross-border activities do not seem to have an effect on large companies and hardly any effect on micro, small and medium sized companies: Given Figure 19, there is no clear evidence regarding the impact on cross-border activity on average VAT compliance costs on micro, small and medium sized enterprises. Considering CIT, the 2022 VVA/KPMG study does not provide evidence that the average burden is generally higher (or lower) for micro, small and medium sized enterprises with cross-border activity.

Figure 19: CIT (left) and VAT (right) private compliance costs for businesses by cross-border activity and by enterprise size

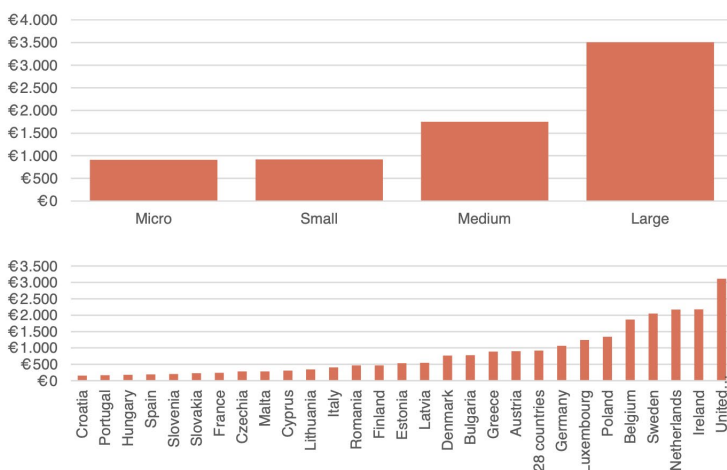


Source: VVA/KPMG (2022), based on a sample size of 2,477 (CIT), 2,479 (VAT).

Furthermore, in its qualitative analysis, VVA/KPMG (2022) mentions that CIT is perceived as a burdensome tax due to the varying tax regimes in the different EU Member States. Regarding VAT, the lack of harmonisation is criticised and this type of tax is described as “one of the most burdensome taxes by the respondents” (p. 56). Respondents favour a single VAT registration and the preference for adjusting the rules such as the turnover threshold or the frequency of filing VAT statements was also raised. The one-stop shop rules for e-commerce, however, are mentioned to reduce the VAT tax burden for companies.

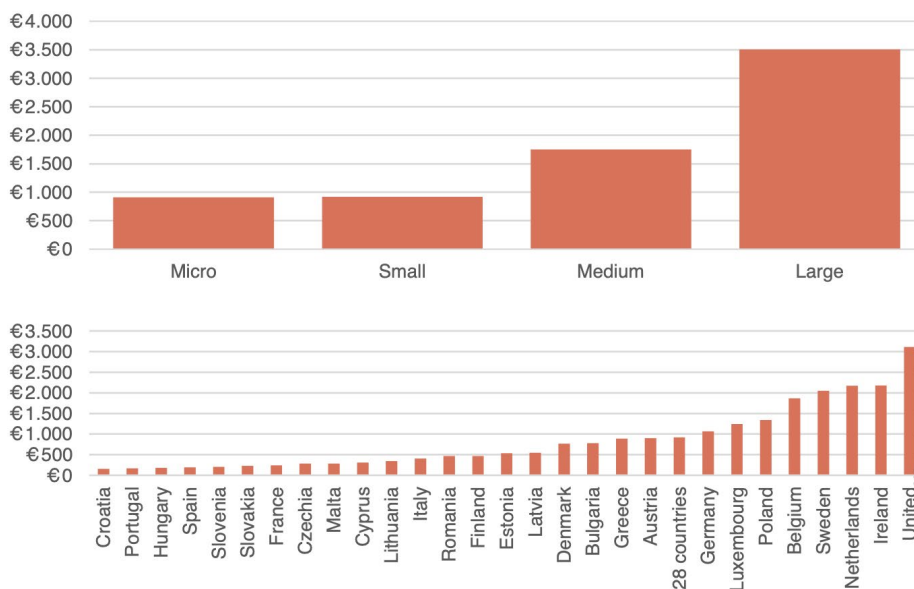
With regard to tax audits – understood in a wide sense comprising several types including tax inspection, examination, verification actions or control – the respective compliance costs seem to also correlate with the size of an enterprise (cf. VVA/KPMG, 2022): This is particularly obvious considering CIT (see Figure 20), ranging from estimates of almost EUR 1,000 per audit for micro-sized enterprises to about EUR 3,500 per audit for large enterprises and an average of almost EUR 1,000 for all – at the time of the survey – 28 member states independent of the size (numbers taken from the figure). A tax audit regarding VAT (see Figure 21) involves estimated costs on average between slightly above EUR 1,000 (micro-sized) to slightly above EUR 5,000 (medium-sized) and an average of almost EUR 1,500 for all 28 member states independent of the size (VVA/KPMG, 2022).

Figure 20: CIT audit-related private compliance costs for businesses by enterprise size (top) and by country (bottom)



Source: VVA/KPMG (2022).

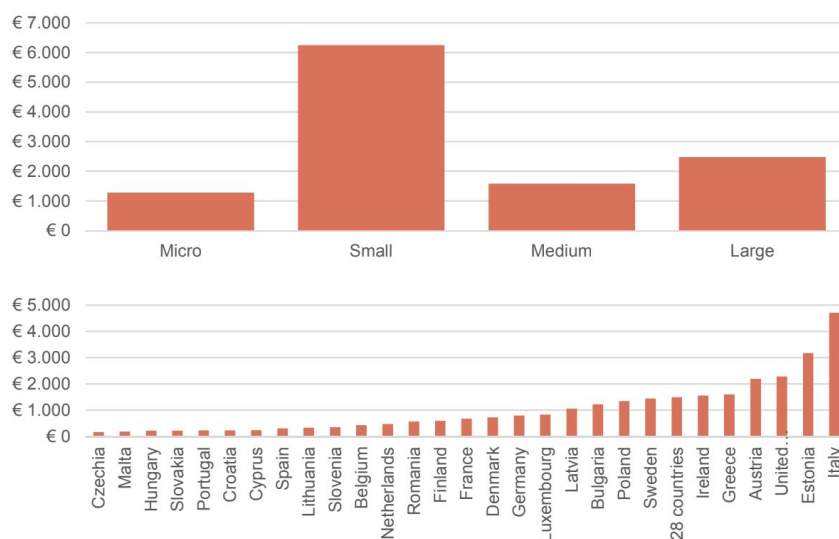
Figure 21: VAT audit-related private compliance costs for businesses by enterprise size (top) and by country (bottom)



Source: VVA/KPMG (2022).

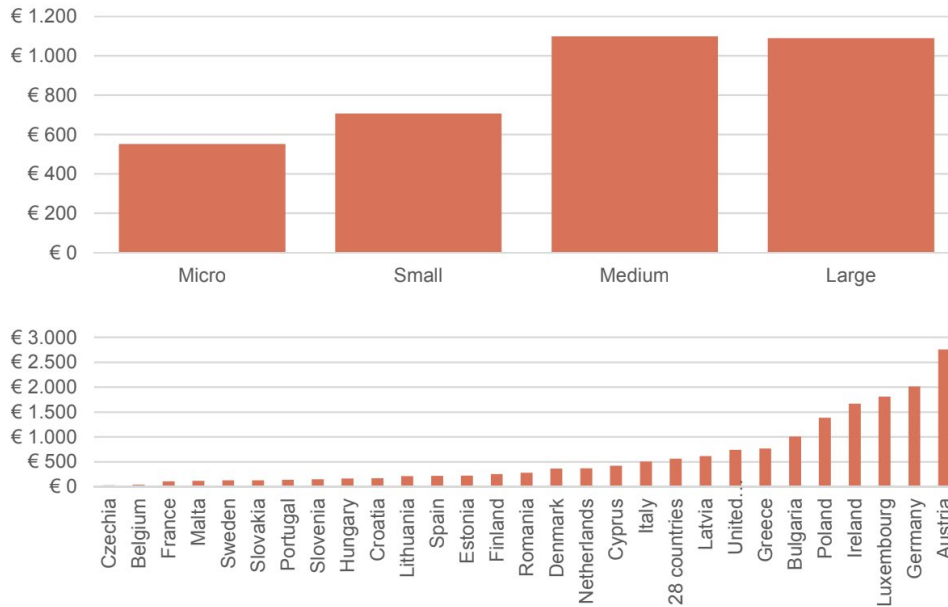
A tax audit regarding wage-related taxes involves estimated costs on average between slightly above EUR 1,000 (micro-sized) and about EUR 2,500 (large) while being above EUR 6,000 for the small enterprise category and an average of almost EUR 1,500 for all 28 member states independent of the size (see Figure 22, VVA/KPMG Study 2022). Tax audits for the other two most burdensome tax types (property-related and local/regional taxes) are generally estimated at a lower cost level: For property-related taxes, they range between almost EUR 600 (micro) to around EUR 1,100 and an average of around EUR 500 for all 28 member states independent of the size (see Figure 23, VVA/KPMG 2022). For local and regional taxes, they range between almost EUR 500 (micro) to around EUR 1,700 and an average of around EUR 500 for all 28 member states independent of the size (see Figure 24, VVA/KPMG 2022).

Figure 22: Wage-related tax audit private compliance costs for businesses by enterprise size (top) and by country (bottom)



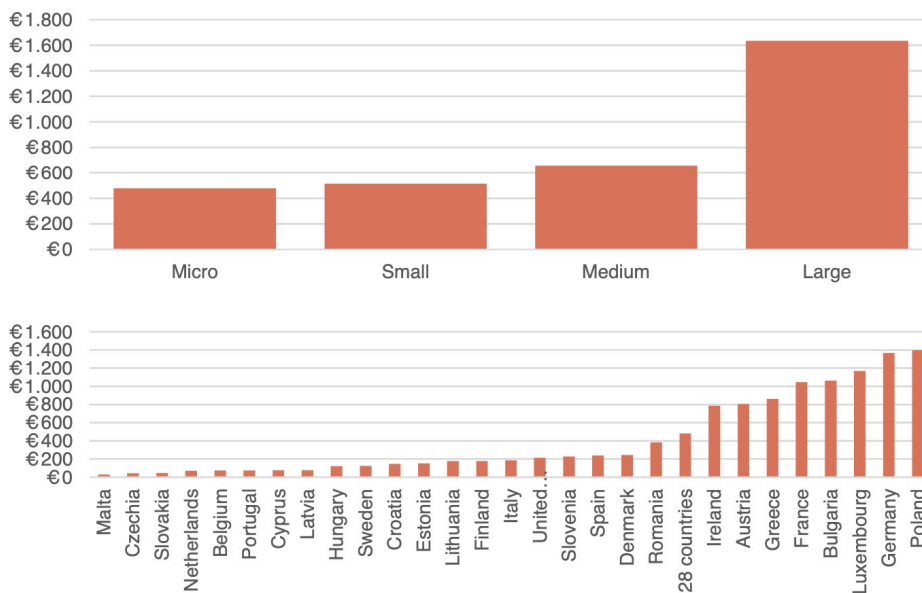
Source: VVA/KPMG (2022).

Figure 23: Property tax audit-related private compliance costs for businesses by enterprise size (top) and by country (bottom)



Source: VVA/KPMG (2022).

Figure 24: Local/regional tax audit-related private compliance costs for businesses by enterprise size (top) and by country (bottom)



Source: VVA/KPMG (2022).

Figure 25: Number of audits for different types of taxes paid by businesses, by country

Country	VAT	CIT	Wage related taxes and contributions	Property and real estate	Local and regional taxes
Austria	0.14	0.05	0.19	0.00	0.09
Belgium	0.08	0.08	0.02	0.03	0.01
Bulgaria	0.23	0.09	0.04	0.00	0.02
Croatia	0.45	0.02	0.16	0.11	0.36
Cyprus	0.10	0.13	0.01	0.01	0.00
Czechia	0.81	0.20	0.41	0.04	0.02
Denmark	0.02	0.00	0.10	0.02	0.02
Estonia	0.27	0.10	0.08	0.06	0.09
Finland	0.30	0.27	0.03	0.23	0.03
France	0.34	0.02	0.24	0.05	0.17
Germany	0.34	0.13	0.27	0.13	0.08
Greece	0.23	0.25	0.12	0.20	0.10
Hungary	0.88	0.47	0.91	0.31	0.48
Ireland	0.08	0.00	0.61	0.17	0.18
Italy	0.18	0.12	0.29	0.00	0.04
Latvia	n.a.	1.26	0.15	1.10	0.06
Lithuania	1.22	0.00	0.12	0.00	0.00
Luxembourg	0.14	0.08	0.12	0.00	0.02
Malta	0.21	0.04	0.11	0.01	0.01
Netherlands	0.77	0.20	0.75	0.03	0.38
Poland	0.02	0.00	0.19	0.00	0.00
Portugal	0.23	0.27	0.01	0.00	0.07
Romania	0.17	0.16	0.15	0.01	0.00
Slovakia	0.59	0.53	0.31	0.15	0.15
Slovenia	0.78	0.05	0.26	0.05	0.04
Spain	0.24	0.07	0.01	0.00	0.02
Sweden	0.17	0.35	0.36	0.06	0.00
United Kingdom	0.08	0.00	0.02	0.04	0.05
<b>28 countries</b>	<b>0.33</b>	<b>0.13</b>	<b>0.23</b>	<b>0.05</b>	<b>0.09</b>

Source: VVA/KPMG (2022).

The frequency of tax audits in the last three years strongly varies by country and types of taxes (see Figure 25, VVA/KPMG, 2022). With 0.33 times in the last three years tax audits are most frequent for VAT and with 0.05 least frequent for property-related taxes in all current 27 Member States plus the UK. As a conclusion, both tax audit costs and frequency of tax audits are highest for VAT compared to the other types of taxes examined.

### 3.4. Cross-border activities and compliance costs

Some larger companies, or company groups, run multinational operations having multiple branches, affiliates, customer bases and suppliers in different countries. Usually this is less often the case for SMEs who tend to operate mostly on domestic markets only. The empirical literature has demonstrated and estimated how multinational companies engage in more aggressive tax planning, thanks to the possibility to exploit transfer pricing and play with the different tax jurisdictions' rules and interjurisdictional treaties (see, for instance: Zucman, 2013; Dharmapala, 2014; UNCTAD, 2015; Riedel, 2018; Jansky and Palansky, 2019). Also, low-tax countries and so-called tax havens can be more readily exploited by companies having an international dimension for their business.

Altogether it is not yet clear if, and to what extent, SMEs are disadvantaged by said tax planning activities. To some extent SMEs can, too, engage in international tax planning (albeit using a more limited set of channels), but nevertheless, it might be that reductions obtained by larger (multinational) enterprises imply an increase in tax liabilities paid by SMEs that have no foreign affiliates or by other, less mobile production factors (Dyreg et al., 2016) or companies in specific industries (Barrios and d'Andria, 2019) who are less able to exploit international tax planning opportunities. An empirical research strategy to tackle such effects encounters many challenges. In Álvarez-Martínez et al. (2022) the authors employed a simulation analysis strategy by using a computable general equilibrium model, called CORTAX, which is designed to represent EU countries (plus the US, Japan and a fictional tax haven) and the behaviour of purely domestic and multinational enterprises. Governments in the model

react to changes in policy, or in the possibilities for firms to successfully engage in tax avoidance (which is determined by parameters assumed in the model), by modifying the statutory corporate tax rate in order to try and collect the same pre-reform level of tax revenues. While “domestic” enterprises (meaning those firms that have no affiliates outside of their home country) do not include only SMEs, it is reasonable to believe that SMEs represent a large share (if not a majority) of domestic enterprises, while multinational companies who are able to engage in transfer pricing are, most often, large or very large company groups. Thus, results for domestic enterprises simulated in Álvarez-Martínez et al. (2022) can be exploited as an approximate indicator for understanding how current base erosion due to international tax planning affects domestic SMEs. For instance, simulation results for a scenario where access to the tax haven is completely blocked predict a decrease of EU overall production by 0.10% (due to rising effective tax rates paid in EU countries), which is composed of a rise in domestic firms production of 0.69% and a decrease in multinationals production of 0.54% and 0.26% (for multinational headquarters and branches, respectively). Therefore, a (rough) estimate of the impact of multinational tax planning activities on EU domestic enterprises would be around 0.7% of domestic GDP when only accounting for tax planning via tax haven jurisdictions (the value would be slightly larger when also accounting for transfer pricing between non-haven countries). Overall, therefore, it is reasonable to believe that the existence of multinational tax planning practices may burden (domestic) SMEs with additional tax liabilities, to the extent that governments try to recover lost revenues by increasing the effective tax rates on the less mobile factors. While not *per se* a tax compliance cost, this is yet a tax-related burden that affects SMEs more than large (multinational) enterprises.

In light of the newly announced Business in Europe: Framework for Income Taxation (BEFIT) policy initiative, it is perhaps worth mentioning that, according to own definitions by the European Commission, the proposal “will provide a single corporate tax rulebook for the EU, providing for fairer allocation of taxing rights between Member States. BEFIT will cut red tape, reduce compliance costs, minimise tax avoidance opportunities and support EU jobs and investment in the Single Market. BEFIT will replace the pending proposal for a Common Consolidated Corporate Tax Base, which will be withdrawn.”<sup>21</sup> We would stress that the CCCTB proposal published in 2016 was extensively assessed, not least via the use of the CORTAX computable general equilibrium simulation model (see Álvarez-Martínez et al., 2016). Thus, to the extent that the following assumptions are met, results from those simulated scenarios for the CCCTB proposal may already provide hints about the impact to be expected from the BEFIT initiative:

- The old simulations produced for the impact assessment of the 2016 CCCTB proposal were based on data calibration for the year 2012. To the extent that national economies and tax systems have not changed dramatically since then, the obtained results for the 2016 impact assessment can be (to some extent) applicable nowadays.
- The BEFIT initiative is still work in progress and is currently subject to public consultation. Details such as the definition adopted for a common tax base and/or the criteria employed to define a formula apportionment system for tax revenues, may greatly affect the obtained results. In particular, the formula apportionment of the 2016 CCCTB adopted a rule based on labour costs, fixed assets and turnover, each weighted one-third. To the extent that the BEFIT and the CCCTB proposal are similar enough, old results may apply to the BEFIT initiative as well.
- The impact of the 2016 CCCTB proposal, in terms of its ability to reduce compliance costs and the mediation effects these may have on economic outcomes due to the CCCTB, was the object

<sup>21</sup> See European Commission, 2019, *Future-proof taxation – commission proposes new, ambitious business tax agenda*, press release, [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_2430](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_2430), accessed on 20/12/2022.

of a specific study (Barrios et al., 2020). In that study, private tax compliance costs were estimated using data from KPMG (2018) and it was assumed that such costs acted purely as unproductive overburden.

Thus, if all these three assumptions are met (year 2012 calibration; same formula apportionment; compliance costs are pure overburden), the BEFIT initiative may be expected to bring significant benefits, both in terms of compliance cost reductions and gains in aggregate investment, based on simulations published in 2016. Of course, nothing prevents the use of the same approach in order to model the BEFIT reform proposal, using a more recent data calibration and a policy reform scenario designed to closely represent the design of the BEFIT initiative. Note however the limitation, in that no quantification of the likely reduction in compliance cost was possible at the time of assessing the 2016 CCCTB, only the economic impact of said reductions (assuming a fixed percentage reduction of compliance costs, which is not estimated but rather taken as a “reasonable” figure) was simulated. Predictions of the likely reduction in compliance costs would probably require a focus group methodology where experts are asked about their opinions. No hard data methodology is known at this time that may be used to quantify reductions in future compliance costs based on an announced policy reform.

With regard to compliance costs, companies who engage in international trade may face different compliance requirements, a notable example being requirements for VAT in Europe. Also, they may have to deal with several distinct tax systems, each with its own rules. As such, one would expect such enterprises to be facing on average larger compliance costs (this point was well motivated and supported with indirect evidence in Heckemeyer, 2022). As we are going to illustrate however, the available evidence, rather counter-intuitively, suggests that facing a multiplicity of tax systems does not significantly affect total tax compliance costs.

In KPMG (2018, p. 46), the authors report that *“controlling for other enterprise characteristics, enterprises engaging in cross-border trade face a TETCC to turnover ratio 0.86% smaller than those active only in their home country”* (note: TETCC stands for “total enterprise tax compliance costs”). It is the case to note, however, that the same report explains that the variable used in their regression analysis to control for firm size is a categorical variable capturing whether a company is micro, small, medium or large. However, when checking the average turnover of enterprises who engage in international trade versus those who do not, the former have a significantly larger turnover for each category (*“The average turnover of micro-sized enterprises engaged in cross-border trade is 101% higher than those active only in their home country. The equivalent figure is 107% for small-sized enterprises, 61% for medium-sized enterprises and 166% for LSEs”*, KPMG, 2018, pp. 41-42). Thus, the reported result is inconclusive as it might just imply that these larger firms (by turnover), because of their size, face smaller compliance costs shares. VVA/KPMG (2022), too, reports results broken down by enterprise size and engagement in international trade. The main finding is that the reported compliance cost shares (as a ratio to turnover) vary little between domestic and internationally-engaged firms, for all size categories and especially for large firms: internationally-engaged firms pay only a little higher compliance costs, both for corporate taxes and VAT. When asked directly about the challenges met when dealing with tax compliance in an international setting, respondents indicated language barriers, difficulties in dealing with different government levels and with local authorities as the most frequent factors. Other factors (*“Complexity of domestic rules and tax returns formats”* and *“Complexity of European rules on cross-border operations”*) were reported much less frequently.

It is the case to contrast mentioned results from VVA/KPMG (2022) with those reported in Heckemeyer (2022). In the former, as stated already, compliance costs are found to vary little between domestic and internationally-engaged firms. In Heckemeyer (2022) indexes for tax complexity are used as indirect

measures of compliance costs, the argument being that complexity positively correlates with compliance costs. In the author's words: "*Tax complexity and compliance costs are highly correlated and thus the very high level of tax complexity in the Single Market with non-harmonised direct taxes across 27 Member States, tight anti-abuse legislation and increasing requirements with regard to documentation and transparency, certainly weighs heavily on companies that are active or consider to become active across borders in the Single Market.*" (see: Heckemeyer, 2022, pp. 25-26). The indexes illustrated in Heckemeyer (2022) indeed suggest that enterprises engaged in cross-border activities should face larger compliance cost.<sup>22</sup> Why, then, is this not reflected in the survey data reported in VVA/KPMG (2022)? We can only speculate here. First, it might be that most enterprises who report to be engaged in cross-border trade, do so purely as exporters. As such, the amount of additional knowledge required may be limited to a few elements of the foreign tax system(s), namely few additional reporting duties and VAT-related compliance which, taken together, would not significantly impact on the overall compliance costs already faced to deal with the domestic tax system. Second, multinational companies may exploit complexity to their advantage as part of their tax planning strategies, to the extent that the existence of tax complexity at the international level (e.g., in the form of tax loopholes offered by differing tax treaties) opens new opportunities to engage in tax avoidance. The latter point would imply that more complexity does not necessarily translate into additional net costs for such enterprises, when also factoring in potential gains obtained as reduced tax liabilities. Third, the questionnaire used in VVA/KPMG (2022) asks the following question: "*Does your enterprise operate cross-border?*" (see question 5 in the VVA/KPMG, 2022, questionnaire, pp. 136-141). This question is then used to split compliance cost measures between enterprises who engage, or not, in cross-border trade (as, for example, plotted in Figure 19). It might be that respondents interpreted this question strictly in terms of trading operations, which would mean that enterprises that do not sell their goods in other countries, but still have a cross-border structure (e.g., they have controlled foreign companies and distribute dividends and interests to parent companies located in other jurisdictions), would answer negatively. As such, all compliance costs due to controlled foreign company (CFC) legislations, anti-double-taxation of dividends and a variety of tax treaties would also fall under the category of enterprises declaring not to be engaged in cross-border trade. In this way, the difference in reported compliance costs between the two groups would be artificially reduced. The latter hypothesis points to the need to distinguish compliance to support international trade from compliance due to company and financial structures employing parent or controlled foreign entities.

From the cited literature and empirical studies (and taking into account the reflections made in Chapter 3.3) we can conclude that direct tax compliance costs faced by those enterprises who engage in international trade are not significantly different from those encountered by purely domestic enterprises. Therefore, the question whether there are best practices in the area of tax compliance costs that encourage cross-border activities is not a major one, in that international trade does not appear to present significantly different challenges as compared to those met by purely domestic enterprises. However, the additional tax liability that is indirectly caused by aggressive tax planning activities of international enterprises, may be sizable (again, as stated, assuming that governments try to recover lost tax revenues to international tax avoidance by raising tax liabilities for local firms). Although not *per se* a compliance cost, the latter effect may demand policy action in order not to put domestic companies and particularly domestic SMEs at a disadvantage *vis-à-vis* larger multinational competitors.

So far, we have focused on cross-border activities in the sense of import/export activities, but another dimension is cross-border workers. Some enterprises employ workers who live in another country and either commute to their workplace or work remotely by means of "smart working" platforms (so-called

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<sup>22</sup> Heckemeyer (2022) does not provide any estimate of compliance costs, only indexes of tax complexity.

cross-border tele-workers). Enterprises that are based close to national borders may more often employ commuters, and starting with the Covid-19 pandemic the use of remote working arrangements has become more common. Enterprises who employ remote workers or commuters may find themselves in the situation of having to manage multiple rules, not only with respect to taxes (for example regarding profit allocation, transfer pricing and reporting requirements) but also to social protection, pension rights and contributions and generally labour laws. Thus, they may face higher compliance costs. The issue of cross-border tele-workers may also cause an additional burden for SMEs, and in particular for SMEs that only operate domestically: They may not be aware of the additional compliance obligations and beyond, they may not have the resources such as a tax department or advisors to assist them in meeting their obligations – as has been put forth in an opinion by the European Economic and Social Committee (2022). In addition, and regarding fiscal policy implications, with an increasing number of cross-border teleworkers a spillover of income tax revenue from one country to another may result (European Parliamentary Research Service, 2022). An EU-wide one-stop-shop system, recommended in 2010, has thus been proposed again by the European Economic and Social Committee (2022).

While an interesting topic that would deserve further scrutiny, based on our knowledge there is no cross-country data source we may use to understand if, and to what extent, such enterprises are overburdened as compared to enterprises who only employ local workforce. We hope that future research will manage to fill this gap.

## 4. CONCLUSIONS AND POLICY IMPLICATIONS

The theoretical discussion and the empirical evidence presented so far allow us to draw some general indications for EU policymaking in the area of taxation and, specifically, related to tax simplification. In recent years, a number of policy reforms and proposals have seen the light, with the (sometimes ambitious) objective to make business income taxation in the European Union fairer and simpler. A notable example of this trend is the Anti-Tax Avoidance Directive (the so called “ATAD rules”)<sup>23</sup> which introduced in 2018 common minimum standards to fight tax avoidance, e.g. by introducing EU-wide minimum controlled foreign company (CFC) and earning-stripping rules. Another example is the proposal for a Common Consolidated Corporate Tax Base (CCCTB) published in 2011 and again in 2016, with the aim to develop a formula apportionment system for corporate taxation together with a common definition for the tax base. Similarly, in October 2022, the European Commission launched a public consultation about the “Business in Europe: Framework for Income Taxation (BEFIT)” initiative which, in many ways similarly to the CCCTB proposal, aims at introducing a common tax base definition together with a formula apportionment.

In light of the role of private tax compliance costs seen as an additional red tape cost burdening enterprises, how should these policies be evaluated? From a very broad perspective, the harmonisation of tax bases would in principle imply a reduction in complexity and, consequently, in compliance costs associated with the different activities and the expertise required to properly fulfil compliance obligations. Thus, for instance, the introduction of a harmonised corporate tax base as defined in the CCCTB proposals, and now discussed with regard to the BEFIT proposal, could generate a positive dividend in that it would reduce compliance costs. Such reduction would happen on at least two distinct levels: 1) domestically, as complicated national tax systems would be streamlined and simplified by removing the many special tax treatments currently existing in them; 2) cross-border, by reducing the difficulties met by enterprises who engage in international trade. As discussed in Chapter 3.4, the latter costs appear not to significantly differ from those encountered by purely domestic enterprises, at least when looking at the limited empirical evidence at our disposal. Therefore, it is the former (simplifications of the domestic national tax systems) that appears to bear the largest potential in terms of compliance cost reductions.

These brief observations imply a powerful message: EU-wide reforms that still permit national governments to keep (or to introduce new) tax exemptions or those that only impose minimum regimes (such as the ATAD rules) or those that apply to a very limited set of enterprises (like reform proposals, such as the 2016 CCCTB, which apply exclusively to very large company groups) are likely less effective in curbing tax compliance costs. Because tax compliance costs, as stated, are positively and strictly associated with the complexity of the tax system, said reforms would be low-powered in that respect, as national governments would still be able to set up selective tax schemes for specific sectors, markets, types of firms and of investments, thus keeping tax complexity high, regardless of partial harmonisations performed at the EU level. These indications are particularly useful in light of the absence of empirical evidence on the effects of recent EU reforms, such as mentioned ATAD rules or the Directive on Administrative Co-operation (DAC)<sup>24</sup> and may provide guidance, albeit in very general terms, on how to design future large-scale, EU-wide tax reforms. It is just the case to note, as an aside,

<sup>23</sup> Council of the European Union, 2011, Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market, [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2016.193.01.0001.01.ENG&toc=OJ:L:2016:193:TOC](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.193.01.0001.01.ENG&toc=OJ:L:2016:193:TOC), accessed on 15/1/2023.

<sup>24</sup> Council of the European Union, 2011, Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC, <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:32011L0016>, accessed on 15/1/2023.

that a few special tax regimes might have the right to exist and differ between Member States. In particular, as discussed already in d'Andria et al. (2018), different R&D tax benefits may find a reason to be in the diverging nature of national innovation systems met in each country. But, generally speaking, these special regimes should be the exception rather than the rule. The latter point was also raised recently by Prof. Simon Loretz who, in a Public Hearing of the FISC subcommittee on Tax Matters (European Parliament, held on the 25 January 2023), stated the following: *"The single corporate tax rulebook in all Member States appears to be a desirable goal. Only noticeable differences in the economic fundamentals in the Member States should translate into different tax base definitions. For example, tax depreciation of a certain type of machinery should be identical across Member States, while the added value of harmonization of specific tax incentives to promote certain activities (e. g. green investment or R&D investments) is more questionable. Such incentives should remain at the Member States discretion and be applied after a harmonized tax base has been calculated according to the common rules. Or in simple words: First calculate a harmonized corporate tax base according to a common definition on the most important aspects. In a second step offer Member States the possibility of additional deductions from the harmonized tax base to account for country-specific requirements and conditions. These additional tax incentives, which should be in line with the state aid rules, would be more transparent this way."* In light of the evidence presented and discussed in this study, we agree wholeheartedly. Also, as argued by Prof. Christian Kaeser in the same public hearing, there might be scope for an initial period of time in order to let enterprises adapt to the new rules, possibly via having in the first phase an optional use of the new rules to *"allow for collecting experiences from the 'pilot phase' and improving BEFIT further."* However, the final objective should remain a mandatory regime for all enterprises that substitutes the pre-existing national rules, as this is the only way to realistically reduce compliance costs due to the complexity of the national tax systems.

A source of inspiration and guidance for policy reform in the area of tax compliance obviously comes by observing which national tax systems fare better. Such comparisons, though, are challenging not only because of the methodological issues met when measuring and comparing compliance costs (as discussed in previous chapters), but also as evaluation of what constitutes a "successful" outcome is debatable. For example: should a tax system associated with higher compliance costs and lower tax evasion (obtained also thanks to the rules requiring many compliance duties) be ranked as better, or worse, than another tax system featuring lower compliance costs and higher tax evasion? Or, to provide another example: would a tax system with large compliance costs and strong support for SMEs (in the form of preferential regimes) be better, or worse, than another with smaller compliance costs and weak or no support for SMEs? It turns out that such evaluations would require a broader perspective, also touching on the peculiarities of each national economy. With these warnings in mind, we can however claim, based on the available evidence discussed so far, that Nordic and Baltic European countries provide a reference for trying to define best practices, as they manage on average to obtain a high level of tax revenues from businesses together with relatively low compliance costs. The latter is particularly indicated by looking at compliance costs expressed as a percentage of collected tax revenue, time required for compliance and also indicated by experts' opinions on the clarity of their tax rules. Thus, a tentative suggestion for future research would be to study the characteristics of these countries and inquire how much private compliance costs burden SMEs there, relative to other EU Member States. According to the results in the VVA/KPMG (2022) report, such positive outcome observed in Nordic and Baltic countries does not appear to be mostly driven by adoption of digital technologies, thus it stands to reason that analysing the characteristics of the tax system, and/or of the filing and audit process, might bear interesting insights.

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This study aims at quantifying and comparing tax compliance costs burdening private businesses in the European Union by reviewing the available empirical literature and data with a focus on small and medium-sized enterprises. Data as well as methodological issues are discussed and used to identify best-practice tax systems in Europe. We highlight differences in compliance costs met by firms of differing sizes, engaging or not in cross-border trade and for different tax types.

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