Accounting Regulation in the European Union

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Accompanying website: http://www.eu-regulations.com**

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Classification: Internal

Accounting Regulation in the European Union

Abstract

We provide a comprehensive overview of accounting-related regulatory changes in the 27 EU countries and the UK since the EU's inception in 1993 (as declared by the Maastricht Treaty) based on an extensive literature review, a survey, as well as input by country and topic academic experts. We classify all regulatory events in a framework that captures the topic being regulated (financial accounting, auditing, tax, other disclosures) as well as the set of firms to which the regulation applies. The accompanying website (http://www.eu-regulations.com) provides visual representations of these events by country, a short description of the regulation, as well as links to the literature references we identified as elaborating on these regulations and to the regulations themselves. Our aim in doing so is twofold. First, we lower the cost for researchers, reviewers and editors to become acquainted with the rich regulatory setting of each EU country over time, becoming the go-to benchmark paper to find an exhaustive overview of regulatory events across all sub-disciplines in accounting that may affect studies' inferences. Second, we aim to provide researchers with insight into available research opportunities to address their research questions when using the EU or a particular EU country as a laboratory. For example, we highlight the different layers of accounting regulation in the EU, and the variation this creates across countries, over time, and to the set of firms to which regulations apply. We identify important confounding events around previously studied regulations, we highlight EU countries that have only rarely been studied even if they contribute substantially to EU GDP, and we pinpoint regulatory changes that have not been studied before. Lastly, we discuss important upcoming regulations that will shape accounting (research) in the near future.

Keywords: accounting regulation, European Union, financial accounting, tax, auditing, disclosure regulation

1. Introduction

The financial accounting function is affected not only by financial accounting regulation and enforcement, but also by auditing and audit oversight, by taxation (e.g., due to book-tax conformity and tax incentives), by stock market regulations (for listed firms), and by other regulations at various levels. This is true for any developed market in the world, but particularly salient in the European Union (EU) where the number of regulatory and enforcement bodies affecting firms' accounting practices in 27 Member States is large and stems from many different origins: EU Regulations, EU Directives, Member State laws, private bodies that are usually given authority by Member States (e.g., the IASB, private local enforcement bodies, or private organizations publishing and overseeing state-level audit regulations), and stock market regulators. Furthermore, this patchwork of regulations applies to different sets of firms. As a first example, EU-rules governing publicly listed firms only apply to firms listed on EU-regulated markets, whereas other rules may apply to public firms listed on exchange-regulated markets (e.g., firms listed on exchange-regulated markets are often not required to use IFRS). As another example, regulations applying to public interest entities (PIE), which commonly include public firms listed on EU-regulated markets, banks and insurance companies, can additionally affect different types of firms depending on the country-level definition of what constitutes a PIE. Naturally, some regulations apply to all firms, albeit with size thresholds varying by country and by regulator.[1]

The amount of data available on EU firms typically exceeds that for other geographical areas due to mandatory filings for public and private firms, making the EU very amenable to

[1] Two aspects add striking complexity to the accounting regulatory environment in the EU compared to that of the US. First, EU Member States have much more independence from the EU than US states have from the US federal government. For example, taxation is regulated in its entirety at the member state level. As another example, while the EU provides regulations and directives about GAAP and disclosure, each state can, within those constraints, define its own local GAAP. Second, currently only 20 out of 27 EU countries use the common Euro as their currency; the other countries use their local currency.

executing research projects. With 14.8 million unique company observations, the EU accounts for 59.1% of all worldwide observations with detailed information in Bureau van Dijks' Orbis database.[2] As a point of comparison, Compustat North America provides data for 80,000 active and inactive companies.[3] On the one hand, the rich EU institutional environment combined with great data availability makes for an interesting research setting in its own right[4] as well as for a useful laboratory amenable to research designs exploiting exogenous regulatory shocks to establish causality when addressing broadly relevant research questions.

On the other hand, the associated complexity of the regulatory environment often makes it difficult for an expert in a topical area (e.g., financial accounting) to be fully familiar with the confounding events that may be correlated with the variable of interest. For example, disclosure and earnings management are not only affected by the respective local GAAP or IFRS, but also by the tax code, audit enforcement and oversight, local stock market regulations that often require more frequent disclosures in quarterly reports, and any other regulations that affect disclosure and earnings management incentives. Most researchers are topic experts rather than country experts. As a result, authors of research studies may unwittingly miss important confounding variables, potentially leading to wrong conclusions and inadvertently misleading policymakers. Since the pool of reviewers with both the broad topical and country expertise needed is limited, these issues may go unnoticed in the reviewing process.

We provide a comprehensive overview of accounting-related regulatory changes in the (current) 27 EU countries and the UK since the EU's inception in 1993 (as declared by the Maastricht Treaty) based on an extensive literature review, a survey of those authors, as well as

[2] Source: Bureau van Dijk (accessed 02/06/2022).
[3] Source: https://www.marketplace.spglobal.com/en/datasets/compustat-fundamentals-(8) (accessed on 02/19/2022).
[4] World Bank data for 2020 show EU GDP at $15.3 trillion in current US$, compared to $20.9 trillion for the US. Source: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD accessed on 2/1/2022.

input by country and topic academic experts. We classify all regulatory events in a framework that captures the topic being regulated as well as the set of firms to which the regulation applies. The accompanying website (http://www.eu-regulations.com) provides a timeline that captures these regulatory changes visually by country, a short description of the regulations, links to the literature references we identified as elaborating on these regulations and to the regulations themselves, as well as some further visual representations that depict the number of regulatory changes by year and the number of topical areas covered.

The purpose of the proposed paper is twofold. First, we aim to overcome the identified challenges by lowering the cost for researchers, reviewers and editors to become acquainted with the rich regulatory setting of each EU country over time, offering the *go-to benchmark* paper to find an exhaustive overview of regulatory events that may impact accounting (e.g., to identify confounding events).[5] While we do not call out particular papers for not controlling appropriately for confounding regulatory changes given the amount of work necessary to do justice to each such paper in a replication exercise, we do expect other researchers to note where a replication study with an improved research design may be appropriate to pursue. Second, we aim to provide researchers with insights into available research opportunities to address their research questions when using the EU or a particular EU country as a laboratory.

For example, we highlight the different layers of accounting regulation in the EU, and the variation this creates across countries, over time, and to the set of firms to which regulations apply, and we shine light on lesser-known facts around accounting regulation. Next, we identify important confounding events around previously studied regulations and show that, on average across all countries and years, we find that more than seven regulatory events occur in a typical

[5] This paper can potentially reach beyond an accounting audience, as the setting and regulations may also be of interest to finance and economics researchers interested in disclosure, information economics, and governance.

difference-in-difference design that looks at event year t=0 and includes a pre- and post-period of each two years. Furthermore, we highlight EU countries that have only rarely been studied even if they contribute substantially to EU GDP and firm-level data is widely available. Lastly, we discuss various interesting opportunities around regulatory changes that have not (or rarely) been studied before and we highlight important upcoming regulations that will shape accounting (research) in the near future.

The remainder of the paper is structured as follows. In section 2, we highlight the different layers of accounting regulation in the EU, and the variation this creates along four dimensions: cross-sectionally across countries, longitudinally over time, to the set of firms to which regulations apply, and in the intensity with which regulations are implemented and enforced. Section 3 explains the methodology we followed and the classification scheme used to put together the accompanying website. Section 4 summarizes numerically the existence of confounding events, as well as when they occur across disciplinary boundaries, and highlights particular regulatory periods where replication may be valuable. Section 5 presents a set of further research opportunities that we believe to be promising. The next section briefly summarizes important regulations to be implemented in the near future, and the last section concludes.

2. Layers of regulatory framework

In the European Union, the accounting environment is subject to regulation by various regulatory bodies, with EU legislation, country-specific laws, and exchange-specific rules being the most significant (European Commission, 2020). EU legislation promotes harmonization and comparability of accounting and audit regulations among EU Member States, while country- and exchange-specific legislation leads to variations across and even within these states. In this section, we explain the various regulatory layers using some prominent examples of each layer and point out examples of variation in these regulations that make these settings interesting from a research perspective. This variation in the regulatory layers will then form the basis of our classification scheme.

2.1 EU legislation – The EU single market

The EU single market was created in 1993 to establish a unified and borderless economic zone among its member countries, allowing for the free movement of goods, services, capital, and labor. The single market aims to remove barriers and harmonize regulations to facilitate trade and economic cooperation within the European Union.

For accounting regulation, the EU single market established a common framework for financial reporting and disclosure requirements, fostering transparency and simplification of cross-border transactions. Since 1993, the European Parliament and Commission passed multiple Directives and Regulations that affected company reporting and auditing, company law, and security markets (see below for examples). EU regulations have immediate binding legal force throughout all Member States, while EU Directives include certain goals that all Member States are obligated to reach. For EU Directives Member States bear the responsibility of transposing these goals into national laws and can exert some decision-authority in how and when to implement such transposition.[6]

One of the most notable, and widely studied, regulations that shaped company reporting is the IFRS Regulation (1606/2002), which adopted International Financial Reporting Standards (IFRS) for the preparation of consolidated financial statements by firms listed on EU-regulated public markets in 2005 (European Parliament, 2002). Similarly, the Accounting Directive 2013/34 increased comparability of local Generally Accepted Accounting Principles (GAAP)

[6] Member States often also issue national legislation to transpose EU Regulations, defining the competent national authorities, inspection and sanctions on the topic.

within Europe (European Parliament, 2013a), given that each Member State has its own local GAAP. These Regulations and Directives effectively often result in a three-book system in Europe: First, firms listed on EU-regulated markets prepare their consolidated statements in line with IFRS. Second, the unconsolidated statements of the parent and all its subsidiaries in most countries have to be prepared in line with local GAAP. And third, firms have to file tax returns that differ from IFRS and local GAAP.

Examples of important audit legislation are the Statutory Audit Directive 2006/43 and the Audit Regulation 537/2014. The Statutory Audit Directive 2006/43 ensures accurate company financial statements by setting minimum requirements for statutory audits, such as the engagement of approved auditors and disclosure of the responsible auditor's identity (European Parliament, 2006).[7] The Audit Regulation 537/2014 improved the statutory audits of public-interest entities, enhancing transparency in the audit market. It introduced measures like mandatory audit firm rotation, the publication of significant risks (key audit matters), and the separation of audit and non-audit services (European Parliament, 2014a).

The EU also significantly shaped the securities markets across the Member States. The groundwork was laid in the Financial Service Action Plan (1999 – 2004), which included over 40 regulatory changes to create a single market for financial services (Byard et al., 2021). The 4 so-called Lamfalussy Directives, named after the former chair of the EU Advisory Committee Alexandre Lamfalussy, constitute the core of the action plan: The Market Abuse Directive 2003/6 aims to prevent insider trading and market manipulation (European Parliament, 2003a), the Prospectus Directive 2003/71 increased IPO prospectus disclosure (European Parliament, 2003b), the Markets in Financial Instruments Directive (MiFID I) 2004/39 created a single

[7] The Statutory Audit Directive has been amended by the Audit Directive 2014/56, which established uniformity in the regulations concerning independence and professional ethics of auditors.

European financial service market (European Parliament, 2004a), and the Transparency Directive 2004/109 harmonized transparency requirements for firms listed on EU-regulated markets, and included the introduction of mandatory quarterly reporting for publicly listed firms (European Parliament, 2004b).[8]

2.2 Country-specific rules - variation across countries

In the EU, all limited liability companies are required to prepare financial statements and file them with the respective national register. Specifically, the 4th Company Law Directive 78/660 (Council of the European Union, 1978) and the 7th Company Law Directive 83/349 (Council of the European Union, 1983) introduced the requirements for unconsolidated and consolidated statements, respectively. The current rules are laid down in the Accounting Directive 2013/34, which repealed the 4th and 7th Company Law Directives, and harmonized national requirements to prepare financial statements.

While the European Union harmonizes many aspects of accounting and audit regulation, Member States legislators and private bodies that are usually given authority by Member States (e.g., private local enforcement bodies, or private organizations publishing and overseeing state-level audit regulations) still significantly shape accounting and audit regulations. This results in four different ways in which there can exist differences in accounting and auditing regulation across Member States: (1) differences in the set of firms to which regulations/directives apply, (2) variations in the intensity of the application, (3) variations in implementation dates, and (4) the issuance of rules that are Member State-specific and not originating from the EU. We will explain each source of country-level variation in more detail below, as well as highlight some important examples of such variations.

[8] Directive 2013/50 amended the Transparency Directive and quarterly reports are no longer mandated by the EU (European Parliament, 2013b).

2.2.1 Variation in the set of firms to which regulations / directives apply

EU regulations typically establish baseline standards, granting Member States the latitude to impose more rigorous requirements. A pertinent illustration of this principle is the Accounting Directive 2013/34, one of whose primary objectives is to alleviate administrative burdens, particularly for entities classified as 'micro-undertakings.'[9] However, the Directive also states that it should solely "be possible for Member States to exempt micro-undertakings from certain obligations," an option that may be either partially exercised or not exercised at all by Member States. Similarly, the Directive allows medium-sized firms to file abridged financial statements and even allows small companies an exemption from the obligation to file income statements.[10] However, this is not uniformly applied across the Member States; for instance, nations like Italy mandate that even small firms must file income statements. This variation in the set of firms to which EU directives/regulations apply leads to notable differences across countries in which firms provide income statements (Beuselinck et al., 2023). Literature has exploited size-dependent disclosure regulations to cleanly identify causality (e.g., Breuer et al., 2018).

Under the provisions of IFRS Regulation 1606/2002, firms listed on markets regulated by the EU are mandated to prepare their consolidated financial statements in accordance with IFRS. Article 5 of the regulation elaborates on this requirement, stipulating that Member States may permit or necessitate these firms listed on EU-regulated markets to also prepare their *un*consolidated accounts (individual accounts) in alignment with IFRS. With respect to firms not listed on EU-regulated markets, Article 5 further states that "Member States may permit or

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[9] Two the following conditions must not be exceeded: balance sheet (€350,000), net turnover (€700,000), average employees (10).

[10] Small firms must not exceed the limits of at least two of the following criteria: (1) EUR 4,000,000 total assets; (2) EUR 8,000,000 net turnover, and (3) 50 average employees. Medium-sized firms must not exceed the limits of at least two of the following criteria: (1) EUR 20,000,000 total assets; (2) EUR 40,000,000 net turnover; and (3) 250 average employees. Firms exceeding these criteria are classified as large.

require other firms to prepare their consolidated accounts and/or annual (unconsolidated) accounts in accordance with IFRS." This provision furnishes Member States with the discretion to opt between IFRS and local GAAP for various categories of firms. Such discretion engenders disparities in accounting practices and comparability across different jurisdictions in the EU. These distinctions are not only manifested in the choice between different types of firms but also in the type of accounts (consolidated vs. unconsolidated), rendering cross-country comparisons of unlisted firms within the EU a complex undertaking. While all countries permit IFRS for consolidated accounts of unlisted firms (and some require it for certain types of firms such as banks and insurance companies), it is not permitted in some countries for unconsolidated accounts (e.g., Austria, Belgium, and Germany). An overview delineating the types of firms that are either disallowed, permitted, or required to use IFRS can be found in André (2017) and on our accompanying website.

Another example of variation to which firms' legislation applies is the country-specific definition of public-interest entities (PIE). Many European legislations, for example, the Audit Regulation 537/2014 or the Non-Financial Reporting Directive 2014/95, only apply to PIEs, which consist of all firms that are admitted to trading on a regulated market, credit institutions, insurance companies and firms that are "designated by Member States as public-interest entities, for instance undertakings that are of significant public relevance because of the nature of their business, their size or the number of their employees" (Audit Directive 2014/56). Thus, Member States EU can impose more rigorous requirements on all firms they deem of public relevance, which likely varies across countries. For example, some countries define pension funds, investment companies, state-owned companies, or firms that pass certain size-thresholds as PIE.

Additionally, countries might change this definition when new Directives are issued (Federation of European Accountants, 2014).

2.2.2 Variation in the intensity

EU Directives necessitate transposition into national law by each Member State, creating variation in how they are incorporated into their legal frameworks. Such variations emerge as Member States adapt the Directives in alignment with their distinct legal and administrative systems, and potentially even political considerations may influence the manner of implementation. While the European Commission is overseeing the implementation of Directives, as one particular area of variation in intensity of application, the responsibility for enforcement within national jurisdictions resides with the Member States, potentially leading to divergent levels of compliance across Member States.

Despite the Accounting Directive 2013/34 specific aim to "ensure the clarity and comparability of financial statements" (European Commission, 2022), the flexibility afforded in local GAAP results in another particular area of variation in the intensity of application. This variation emanates from the individualized systems within each Member State concerning the development of local GAAP and the assignment of responsibility for this task. As a consequence, there are substantial differences across countries in the national transposition of the Directive and important differences in local GAAPs. For example, Spanish GAAP is based on the General Chart of Accounts (*Plan General de Contabilidad*) issued by the Accounting and Auditing Institute (*Instituto de Contabilidad y Auditoría de Cuentas*) (Mora, 2017). In Germany, local GAAP is mainly described in the German Commercial Code (*Handelsgesetzbuch*, HGB) (Fülbier et al., 2017), and UK GAAP is embodied in the *Companies Act 2006* (Collis et al., 2017).

In contrast to EU Directives, EU Regulations do not have to be transposed into national law, although many Member States often do so to define the competent national authorities, inspection and sanctions on the topic. Nevertheless, also EU Regulations might not be applied uniformly across countries. For example, the IFRS Regulation 1606/2002 states that Member States "are required to take appropriate measures to ensure compliance with international accounting standards." However, there is substantial variation in how Member States design enforcement of this exemplar EU Regulation. Countries like Germany[11], Austria, and Sweden have special enforcement agencies, while for other countries the market regulator or the central bank might be responsible. Similarly, the number of reviewed firms per year (mostly between 10% and 30% of all listed firms) or penalties in case of non-compliance differ across countries (Elfers and Pierk, 2020).

The auditing profession is also largely organized on the national level, and hence variations across Member States exist. For example, while the Audit Directive 2006/43 is the basis for access requirements to the audit profession, these EU-level requirements are fairly minimal and there are considerable differences as to who can become an auditor across Member States. The approval and registration of statutory auditors are among the most frequently delegated tasks. Ten Member States allow access to the auditing profession without a university degree, and in these cases, the necessary practical training period varies between 5 and 15 years (Jahn and Loy, 2023).

[11] The 2004 Bilanzkontrollgesetz introduced the German Financial Reporting Enforcement Panel (FREP), a private-law entity. However, as a result of the Wirecard scandal, the FREP stopped its activities and the Federal Financial Supervisory Authority (BAFIN) is solely responsible for examining the financial statements of publicly listed firms since January 2022. Heese (2022) attributes some of the FREP' weakened oversight to it allowing its senior regulators to serve on boards of public firms during their FRP tenure.

2.2.3 Variation in implementation dates

The European Commission stipulates the deadlines for transposing Directives into national law, resulting in variations in the actual implementation dates across Member States. Such disparities might arise simply because a Member State has already instituted a specific measure for unrelated reasons, making further implementation unnecessary. Conversely, most Directives require transposition, and factors such as national legal processes, political priorities, and administrative capacities may influence the pace of this process. While some Member States may complete the transposition prior to the deadline, others may do so only just-in-time, or even subsequently. Consequently, implementation dates frequently diverge from the formal transposition deadlines. This temporal variation can and has been used by researchers in their research designs. For example, the Transparency Directive 2004/109 was implemented between 2007 and 2009, and the Shareholder Rights Directive 2007/36 between 2009 and 2012 (Bonetti et al., 2020). Christensen et al. (2016) is another example of a research paper that has exploited these timing variations.

2.2.4 Country-specific rules

Country-specific rules, by definition, create variation across EU Member States. For example, tax policy remains largely the sole responsibility of the Member States. Member States are free to set the statutory tax rates for corporate taxation or tax-loss offsetting rules. However, the EU has established some measures to prevent double taxation or double non-taxation, the case in which profits are not taxed at all.

2.3 Exchange-specific rules - Variation across/within countries

2.3.1 Variation in the set of firms to which regulations / directives apply

Variations across countries and even within countries can stem from exchange-specific rules. Most stock exchanges in Europe distinguish between EU-regulated market segments and exchange-regulated market segments, and stock exchanges are free to choose if a market segment is EU-regulated or not.[12] This distinction is important as many EU Regulations and Directives only apply to firms listed on EU-regulated markets. For example, the Market Abuse Directive, Transparency Directive, and IFRS Regulation only apply to EU-regulated markets. Thus, firms listed on market segments that are exchange-regulated are not required by the European Commission to prepare their consolidated accounts in accordance with IFRS.

However, some stock exchanges allow or even require IFRS for some of these exchange-regulated markets (Byard et al., 2021; Pierk, 2018), which leads to differences across and within countries in whether publicly-listed firms apply IFRS. For example, firms listed on the 'Scale' market segment of the Frankfurt Stock Exchange can voluntarily adopt IFRS, but firms listed on the Alternative Investment Market at the London Stock Exchange have been required to use IFRS since 2007. Similarly, Audit Regulation 537/2014 does not apply to exchange-regulated markets, but the London Stock Exchange has required expanded auditor reports since 2017 (Gutierrez et al., 2022).

2.3.2 Variation in the intensity

Stock markets often require more detailed or more frequent disclosure for some of their stock market segments than what is required by the EU. For example, the Transparency Directive

[12] The list of EU-regulated exchanges can be found here: https://finance.ec.europa.eu/publications/list-eu-regulated-markets_en .

2004/109 required quarterly reporting for firms listed on EU-regulated markets. However, these reports were only required to include an explanation of material events and a general description of the financial positions (Article 6). The Transparency Directive Amendment Directive 2013/50 made even those interim reports no longer mandatory. Yet, Bornemann et al. (2023) show that most firms continued to file quarterly after the interim report mandate was abolished, but most firms reduced the amount of disclosure. However, certain stock exchanges continue to mandate quarterly reports, primarily for their principal market segments where the largest firms are typically listed. These quarterly reports can range in complexity, from relatively rudimentary overviews highlighting significant events and key financial positions, to comprehensive, fully audited quarterly reports. It’s worth noting that within the EU, the requirement to publish any quarterly information, whether audited or not, no longer exists.[13]

3. Methodology, accompanying website and classification

3.1 Methodology to identify relevant regulatory changes

Our strategy to identify relevant regulatory changes is as follows: First, we consider all publications included in the Scopus database in the top-15 accounting journals (by 2020 impact factor) and *Accounting in Europe* between 1993 and 2021.[14] Within these 15,048 publications, we initially screen for all country names and ‘Europe’, and variations thereof (e.g. 'Denmark' and 'Danish'), in the title, abstract, or keywords. In total, we identify 2,660 unique papers that include these search terms, with some papers mentioning multiple countries, resulting in 3,342 paper-

[13] An overview of the quarterly reporting requirements for 15 European countries can be found in Table 1 of Hitz and Moritz (2019).
[14] In alphabetical order: Accounting and Business Research, Accounting, Auditing, and Accountability Journal, Accounting and Finance, Accounting Horizon, Accounting in Europe, Accounting Organization and Society, British Accounting Review, Contemporary Accounting Research, European Accounting Review, International Journal of Accounting Information Systems, Journal of Business Finance & Accounting, Journal of Accounting and Economics, Journal of Accounting and Public Policy, Journal of Accounting Research, Review of Accounting Studies, and The Accounting Review.

country combinations. We systematically review these papers to identify regulatory changes. Second, we screen the last 5,000 publications in the SSRN accounting research network (originally posted between March 2021 and January 2022) to identify recent institutional changes described in working papers that are not yet published. Since the data is not available in a database, we gathered the title, abstract and keywords from each publication. Within these 5,000 publications, we identify 455 unique papers that include country names in the title, abstract, or keywords.

Third, for every relevant regulation change identified in one country, we also checked if it is applied in other countries. Fourth, we cross-checked our list of regulation changes with those reported by IAS Plus, and added any not covered by our literature search. Not included are regulation changes specific to a certain industry, e.g. banks, utilities, non-profit and governmental agencies, real estate, and agriculture. Additionally, we did not include regulatory spillover from other jurisdictions, e.g. subsidiaries of U.S.-listed firms subject to the Sarbanes-Oxley Act. Lastly, we subjectively determined if changes were minor, and excluded those. For example, we excluded tax rate changes below 3%.

Fifth, we contacted all national representatives of the European Accounting Association to request their input on whether we have missed an important regulatory change in their country or an important paper that studies any of the regulations in their country's context, incorporating any feedback we got. Sixth, we contacted the authors of all cited papers on the website with a link to an online questionnaire to ask for additional input on references that our screening algorithms may have missed, with a particular focus on the country where they are experts. The response rate was approximately 38% (92 out of 255 active email addresses), but it is possible that authors did not respond if they did not notice any missing regulation. Seventh, of the 2,660 unique papers we identified that mentioned our search terms, 753 were published in the last 5 years, and hence are presumably written by researchers still actively publishing accounting research. Approximately 1,500 unique authors contributed to these papers. To the extent possible, we collected the email addresses of these authors, and will send out a mailing to refer those researchers to the paper and the website, accompanied by an online questionnaire should they have additional input[15]. Eight, we will identify countries not covered in the prior steps and aim to contact local accounting experts in those to identify relevant changes not mentioned in existing publications. Where possible, we intend to approach country experts in financial accounting, tax, and auditing to ensure broad topical coverage.

3.2 Classification of regulatory changes

We classify every regulatory change along two dimensions. The first dimension is the topical domain and uses four categories: Financial Accounting (*FA*), *Audit*, *Tax*, and *Other*. The first topic (*FA*) covers changes to the financial accounting system, which includes, for example, changes in recognition and subsequent measurement of assets and liabilities as well as disclosure rules. Regulatory changes are mostly due to EU Regulations and Directives, changes to the local GAAP system, or disclosure rules of the stock market regulators. The second topic (*Audit*) includes changes to audit regulations and audit oversight. Regulatory changes are mostly either due to EU Regulations and Directives, or changes to the audit system. The third topic (*Tax*) is related to changes in taxation, for example, major tax rate changes. Note that we only include tax rate changes of 3% or higher. Regulatory changes are typically country-level. All accounting regulatory changes that do not fall into the previously mentioned categories are classified as

[15] We expect the response rate in this “awareness” stage to be low, as we do not explicitly ask them to fill out the survey yet only use it should they note a missing regulation or have further feedback.

Other, e.g., regulations related to corporate governance, Initial Public Offerings (IPO), or mergers and acquisitions (M&A).

The second dimension of our classification considers the set of affected firms. Following our discussion in Section 2 of the layers of regulation that apply to different sets of firms, we classify regulations according to the set of firms they affected into four categories: *All Firms*, *Public Interest Entities (PIE)*, *Firms listed on EU-regulated markets (Public-EU)*, and *Firms listed on exchange-regulated markets (Public-Other)*. The first category includes regulatory changes that apply to all firms (*All Firms*), albeit with varying size thresholds, sometimes excluding the smaller private firms. The second category (*PIE*) includes regulatory changes that apply specifically to Public Interest Entities, which in most countries include public firms listed on EU-regulated markets, banks and insurance companies, and often large private firms. The definition of PIEs is country-level, and therefore may include any company that the country classifies as such. The third category includes regulations that apply only to firms listed on EU-regulated markets (*Public-EU*). The fourth category shows regulations that apply only to firms listed on exchange-regulated markets (*Public-Other*).

3.3 Accompanying website

The accompanying website providing a comprehensive overview of accounting regulation in the EU is available at http://www.eu-regulations.com. For each country, we provide the following information. First, the website presents a graphical overview of the regulatory changes over time for each country. This graphical overview uses a color-coding that classifies the topic of the regulation as *Financial Accounting* (purple), *Auditing* (blue), *Tax* (green) and *Other* (red). It uses a shape-coding to indicate the application of regulations to *All* firms (circle), *PIE*s (triangle), *Public-EU* (square) and *Public-Other* (plus sign). Regulations affecting public firms only are indicated above the timeline on the website, while regulations affecting a broader set of firms are below the timeline.

Second, below the timeline for each country is a list of all regulatory changes with a brief description. We do not discuss each regulation in detail but include links to the respective official documents, EU regulations (if applicable), and a paper that discusses the respective change (if available) where the interested reader can take a deeper dive. If official documents are not available, we refer to secondary sources. The papers mentioned cover the respective country if such paper is available. However, in the case of EU Directives and Regulations, the papers might mention the Directive and national transposition into another country if no country-specific paper is available. For EU Directives, we included the official transposition deadline as reported by the European Commission, unless we found the entry-to-force date in the literature (denoted with a * on the website). The "papers" and "SSRN" tabs list the full references of, respectively, published and working papers on accounting regulation in the respective country.

Third, the tab "number of regulations" provides a graphical overview of the number of regulatory changes 5 years around a respective year (-2, -1, 0, +1, +2) in the country. Fourth, the tab "number of categories" provides a graphical overview of the number of different topical areas (Financial Accounting, Auditing, Tax and Other) in which regulatory changes happen for 5 years around a respective year (-2, -1, 0, +1, +2) in the country. The next section will explain how we use the information in these last two graphical overviews to identify confounding events in research studies on a specific regulation, and specifically the role that interdisciplinary (i.e. regulations in another sub-discipline of accounting) confounding events may play.

4. Identifying confounding events

4.1 General trends

The overview of regulatory changes over time per country helps authors, reviewers, and editors to identify important confounding events, thereby avoiding wrong conclusions in their research findings. Our work shows that the number of confounding regulations may be large. We start with aggregating the data on the country websites by counting the number of regulations implemented in the EU countries and the UK over time, using the framework of a typical difference-in-difference design that looks at event year t=0 and includes a pre- and post-period of each two years. Figure 1 plots the average number of accounting regulations implemented across all countries over the period t-2 to t+2 in year t=0. We observe a very noticeable peak in the 2005-2008 period, with an average of more than 12 and a maximum of 20 (Italy, 2007).

Figure 2 plots this average number of accounting regulations over the 5-year period by category (Financial Accounting, Auditing, Tax, and Other). As can be seen in Figure 2, a big part of the 2005-2008 peak is driven by Financial Accounting regulations. In this period, we saw the rollout of various IFRS regulations (European Parliament, 2002), as well as the Transparency Directive (European Parliament, 2004b), which introduced mandatory quarterly reporting for publicly listed firms. In auditing, the Statutory Auditing Directive (European Parliament, 2013a) was implemented. Important other disclosure regulations during this peak regulatory period include the IPO Prospectus Directive 2003/71 (European Parliament, 2014b) and the Mergers and Acquisitions Directive 2005/56 (European Parliament, 2012). Additionally, also the enforcement of IFRS increased in some, but not all, countries (Christensen et al., 2013), some stock market regulators established new markets segments on which IFRS is still voluntary

(Byard et al., 2021; Pierk, 2018), and Member States either required, permitted, or prohibited private firms to adopt IFRS (André, 2017). Lastly, other local regulation changes took place.

The second, albeit bit lower, peak of regulatory activity occurred between 2014 and 2017. As Figure 2 indicates, auditing regulation contributed proportionally more to this increased volume of regulation than in the prior peak. This later period, in particular, saw the Audit Directive 2014/56 (European Parliament, 2014b) and the Audit Regulation 537/2014 (European Parliament, 2014a) that improved the transparency of the audit market. On the Financial Accounting front, this period saw the Accounting Directive 2013/34 (European Parliament, 2013a) and the abolishment of mandatory quarterly reports. In terms of other disclosure regulations, the most important one during this period was the Non-Financial Reporting Directive 2014/95 (European Parliament, 2014c). Tax regulation, including major tax rate changes, happens more uniformly over time.[16] Partly contributing to these peaks are the waves of EU enlargement with 10 countries joining in 2004[17], two in 2007 (Bulgaria and Romania), and one in 2013 (Croatia). These countries have to, upon joining the EU, implement many regulations in a very short time period to "catch up" on previously issued EU legislation.

Insert Figures 1 and 2 about here.

Table 1 presents information on the average number of accounting regulations over the 5-year period by country-year. The *column* labeled "avg" is the average across all countries over time, as plotted in Figure 1. Countries have an average of 7.3 regulatory events per year, ranging between 5.7 for Croatia and 9.6 for Germany.[18] The *column* labeled "1" indicates the count of

[16] A country-specific version of Figure 2 is available on the website for each country.
[17] Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia
[18] We acknowledge that, although we applied an extensive search and feedback process, we may have missed some regulations in some countries, and that there may be some bias in this measurement error given it is harder to identify the regulatory changes in understudied countries.

countries in which in the five years around that year (from t-2 to t+2) only 1 regulatory event occurred and would hence provide a clean treatment in a research design. There are 71 such country-years, which make up around 9% of all country-years covered (71/784). Noticeably, those country-years tend to be early years after the formation of the EU, and there have been no such clean treatment country-years since 2010. The *row* labeled "1" indicates similarly the count of clean treatment years for each country over time. It averages 2.5 years across countries and ranges between 0 (no 'clean setting' for France, Germany, Poland, Romania, and the UK) and 10 (Croatia).

The last *column* labeled "0" indicates the count of countries in which in the five years around that year (from t-2 to t+2) no regulatory events occurred and would hence provide a clean control group in a research design. There are 27 such country-years, which make up less than 3.5% of all country-years covered. Again, they are concentrated in the early years after the formation of the EU and there have not been such clean control country-years since 2002. Lastly, the *row* labeled "0" indicates similarly the count of clean control years in each country. It averages 0.96 and ranges between 0 (Bulgaria, Cyprus, Czech Republic, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Poland, Romania, Slovakia, Slovenia, and the UK) and 5 (Latvia). France, Germany, Poland, Romania and the UK do not have clean treatment nor control years in a t-2 to t+2 difference-in-difference design.

Insert Table 1 about here.

4.2 Interdisciplinarity

One of the challenges we previously highlighted is that researchers tend to be topical experts and may therefore be less aware of the institutional detail outside their main area of expertise. For example, a financial accounting researcher may not be up to date on tax regulatory changes, or a tax researcher may not be aware of changes to auditing regulation. Yet, presumably, researchers should be familiar with changes to regulation within their own discipline. To understand how large the potential of confounding events that cross disciplinary lines is, and hence unfamiliarity likely a larger problem, we repeat the analysis of Table 1, but now count the number of different categories of regulations that would be changing in a difference-in-difference design over a 5-year period (from t-2 to t+2) for a given country year. Given that we capture 4 categories of accounting regulation (Financial Accounting, Auditing, Tax and Other Accounting Regulations), this number ranges from 0 to 4. Table 2 shows this analysis. As the column labeled "avg" shows, the average number of categories affected across years is 2.5, indicating that confounding events cross between 2 and 3 disciplinary lines, and making it highly likely that specialized researchers may not be fully aware of confounding events. Figure 3 graphs this average over time. Notably, during the two previously identified peak regulatory periods (2005-2008 and 2014-2017) we see that on average more than 3 different disciplinary categories are affected. Also, the average never drops to 1 or below 1.[19] The problem of confounding regulatory events in accounting research is interdisciplinary by nature.

Insert Table 2 and Figure 3 here.

The column in Table 2 labeled "1" indicates the count of countries in which in the five years around that year (from t-2 to t+2) only 1 discipline within accounting regulation was affected. There are 129 such country-years, entailing that only in around 16.5% of country-years (129/784) a specialized researcher is likely aware of all the regulatory changes, and again highlighting the need for interdisciplinary expertise. Years where just one discipline was affected by regulation are in the early years after the formation of the EU and in a period of relatively low

[19] A country-specific version of Figure 3 is available on the website for each country.

volume regulatory action between 2012 and 2013. The row in Table 2 labeled "1" indicates the count of years by country in which in the five years around that year only 1 discipline within that country's accounting regulation was affected. The average is 4.6, indicating that over the 28 years covered, on average a country has just under 5 periods of 5-year spells where regulatory changes only affect one discipline within accounting. This number ranges between 0 periods (Poland) and 15 periods (Croatia), indicating that it is less important for researchers doing a country-level study in Croatia to have interdisciplinary knowledge than for those in Poland.

4.3 Specific highlights

Our analysis serves to illuminate specific country-years where the assumptions of a difference-in-difference design may not hold, pinpointing particular areas in which replication studies could be instructive. It should be noted that our objective is not to target any singular study for replication and or to undertake such replication ourselves within the confines of this paper. A fair and just examination of such exercise would necessitate a focused exploration of a single setting, requiring a level of detail that diverges from the broader perspective that we aim to offer in the paper. Moreover, we acknowledge that many studies examining specific regulations have appropriately controlled for potential confounding events, and we do not attempt to assert otherwise here. Furthermore, it is conceivable that not all cited regulations are pertinent in every context, and that for certain research questions, neither the treatment nor control group may be affected by a particular regulation. Nevertheless, our research may guide future studies in reevaluating previous studies and their conclusions, based on the guidance our work offers in identifying potential concerns. Additionally, even in the absence of confounding regulations within a given study design, our paper can help researchers explain why that is the case.

Nevertheless, we now turn our attention to two specific cases where we observe a heightened likelihood of confounding events. First, the 2005 IFRS introduction of IFRS represents one of the most scrutinized regulatory shifts in accounting research.[20] Many studies have attributed important economic outcomes to IFRS adoption; however, there were simultaneous changes that may complicate these interpretations. These concurrent shifts could either affect whether a firm genuinely reports under IFRS, creating potential measurement error, or influence the economic outcomes themselves, creating potential confounding events problems. An illustration of the former concern centers on many stock exchanges introducing new market segments in which firms were able to choose whether they followed local GAAP or IFRS around the time of the IFRS introduction. For example, the New York Stock Exchange opened the market segments "Alternext Brussels" in Belgium, "Alternext Paris" in France, "Alternext Amsterdam" in the Netherlands, and "Alternext Lisbon" in Portugal in May 2005. The Frankfurt Stock Exchange opened the market segment "Entry Standard," and the Luxembourg Stock Exchange opened the market segment "Euro MTF", both in October 2005. Neither of these new market segments require compliance with the IFRS regulation and firms can choose to follow local GAAP or IFRS.

Examples of other simultaneous changes encompass significant regulatory events that occurred around the same time as the IFRS introduction. These include the 2006 Disclosure Directive which introduced penalties for non-disclosure of financial statements, increasing the number of firms that have transparent financial information (Bernard, 2016); the 2007 Transparency Directive, introducing mandatory quarterly reporting for publicly listed firms, increasing the frequency with which information comes to the market (Ernstberger et al., 2017);

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[20] For a comprehensive literature review of the IFRS adoption literature, we refer the reader to De George et al., (2016).

and the 2007 M&A Directive, harmonizing the legal basis for cross-border mergers in the EU, thereby facilitating economic activity. Thus, in this intricate regulatory environment, a pre-post analysis employing a difference-in-difference design may oversimplify the setting and economic outcomes could be erroneously attributed to the IFRS regulation, overlooking the confluence of influential factors that shaped the financial landscape during this period.[21]

Second, while it is a common assumption that all EU publicly listed firms began using IFRS in 2005 and that hence post-2005 is the IFRS period, Pownall and Wieczynska (2018) show that this assumption is inaccurate. Some firms used the option to defer IFRS by two years, and other firms are not required to use IFRS since they do not provide consolidated statements or are not listed on an EU-regulated market. Nobes and Stadler (2023) show that this non-adoption is not non-compliance.

Furthermore, many take the entire post-2005 IFRS period to be somewhat “fixed” over time, even though it is clear from the timelines that IFRS is constantly changing with IFRS 7 through 17 introduced between 2007 and 2023. The various country-level timelines also show that local GAAP is changing a lot over this time period. The EU Directive 2013/34/EU aimed to increase the comparability of local GAAP within the EU as well as between local GAAPs and IFRS. However, with that much change in both IFRS and the various local GAAPs, it is difficult to study the effect of this Directive in ensuring comparability longitudinally. Private equity firms are aware of this lack of comparability over time and make adjustments to facilitate comparability with prior similar transactions (Bourveau et al., 2022); for example, they adjust for IFRS 16 (the new leasing standard) to ensure that their estimated multiples in their valuations are comparable over time.

[21] Two examples of papers that carefully revisited effects of IFRS are Byard et al., (2021) and Christensen et al., (2013).

5. Opportunities for research

While the prior section urges researchers to exert caution when using the various regulatory changes in research designs, this section highlights the various interesting opportunities for research we see. First, we classify further research opportunities along two dimensions: understudied countries and previously unexplored regulations. Next, we provide our more subjective perspective on a set of further research opportunities.

5.1 Under-researched countries

First, while some countries (e.g., the UK) are widely studied, other countries within the EU are rarely studied although data is widely available. For example, 13 counties were added to the EU in 2004/2007/2013[22] that account for 11.1% of EU's GDP in 2020 and 23.6% of all firm observations from the EU in Bureau van Dijks' Amadeus database (with non-missing total assets). However, Table 3 shows that these countries are covered in only 3.31% of the EU studies. For the average country, we find 0.115 publications per one billion GDP, with a minimum of 0.027 (Luxembourg) and a maximum of 0.359 (UK). One potential issue of interest here is that late joiners have to translate a lot of the earlier EU regulations and directives in a very short time span, with often regulatory changes happening all at once. For example, Croatia exhibits a notable peak in regulatory activity at the time of joining the EU (2013) (http://www.eu-regulations.com/croatia.html).

Insert Table 3 about here.

We classify countries as understudied when the ratio of publications per one billion GDP is below 0.05. These countries are Austria, Bulgaria, Hungary, Luxembourg, Poland, Romania,

[22] 2004 EU enlargement: Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. 2007 EU enlargement: Romania and Bulgaria. 2013 EU enlargement: Croatia.

and Slovakia. For most of the countries, the Bureau van Dijk database provides data on more than 100,000 firms (with a maximum of 736,154 for Romania). These countries make for interesting research settings in their own right as well as for useful research laboratories. It may be interesting to replicate other papers in these settings to address their generalizability and support local policy makers in these countries with research insights relevant to their countries. Should results not replicate, it would become an interesting exercise in understanding what may be different about the institutional, cultural or economic conditions of these countries that cause that observation.

5.2 Under-researched regulations

While the first step in our methodology relied on an extensive search of the academic literature, we also identified several regulatory changes that have not or barely been studied via accounting practitioner sources such as https://www.iasplus.com, by contacting local accounting experts, including the national representatives of the *European Accounting Association* and authors of papers cited on the accompanying website, in each country. This methodology now allows us to identify those regulatory changes about which no research was published in the 16 journals our algorithm searched. We do acknowledge that, while these are the journals with the largest impact, it is possible that other journals have published such research studies, and we did not become aware of these papers during the process. Research on local GAAP, audit, tax or other disclosure regulatory changes in smaller countries may be more likely to be published in journals not on our list (including journals published in local languages), so our process could have exhibited a bias against identifying the existence of this research.

While any regulation on the website for which we do not cite an academic reference is technically an “under-researched regulation,” we do not wish to encourage a “matrix” approach to research where the lack of academic research on a topic indicates it must be researched. Instead, we aim to highlight more subjectively where research is needed to fill important gaps in our understanding, motivated by the importance of the regulation or the setting.

The first under-researched regulatory change we wish to highlight is the Accounting Directive 2013/34, which had to be transposed into national law by the end of 2015. This directive aimed to reduce administrative burdens for smaller firms and increase the comparability of local GAAP within the EU (André, 2017). With more than 23 million SMEs in the European Union in 2022, employing almost 84 million people, contributing an average value of 56% of an EU country's value[23] and making up 99.8% of the enterprises in the non-financial business economy of the EU[24], the effect of accounting regulatory changes on SMEs is easily identified as an important research area. Several questions, similar to those asked around the introduction of IFRS for public firms in 2005, arise: Does the Directive indeed reduce the administrative burdens for these SMEs, and is the effect different in countries that translated the Directive in significantly different ways into local regulation? Is comparability achieved or do specific Member State options and other institutional differences (e.g., variation in auditing standards, variation in local enforcement, etc.) hinder comparability? Next, what are the consequences? Does the Accounting Directive reduce the cost of capital? Does it facilitate cross-border trade and labor mobility Are the consequences stronger for SMEs than for larger firms?

The Shareholder Rights Directive II (2017/828) that was implemented in 2019 is a second under-researched Directive, in that we did not locate any accounting research papers on this, despite its importance in encouraging "long-term shareholder engagement to ensure that decisions are made for the long-term stability of a company and take into account environmental and social

[23] An SME is defined as having fewer than 250 employees. Data available at https://www.statista.com/statistics/878412/number-of-smes-in-europe-by-size/ ,
[24] https://www.statista.com/statistics/939721/eu-enterprise-size-share/

issues" (Directive (EU) 2017/828). The directive "facilitates shareholder identification and information flows between the shareholders and the company, improves the oversight of directors' remuneration, regulates related party transactions, and introduces greater transparency" (Directive (EU) 2017/828).

Third, the Audit Directive 2014/56 and Audit Regulation 537/2014 form one legislative package. While the primary objective of the Accounting Directive 2014/56 is to establish uniformity in the regulations concerning independence and professional ethics, Audit Regulation 537/2014 emphasizes the need for a distinct set of guidelines for PIEs, fostering consistency in application and contributing to a more efficient internal market. Some authors have studied these reforms. Horton et al., (2018) study market reactions to these reforms, Willekens et al., (2019) study their effect on market concentration, and Moroney et al., (2021) cover the introduction of key audit matters. We see further avenues for research into these auditing reforms. For example, it is unclear if harmonization across Member States is achieved or if differences in transposition, e.g. related to differences in mandatory firm rotation for PIEs, remain large. If the reforms indeed harmonized auditing practices (to a large extent), how is financial reporting affected? Do the legislations affect capital allocation? Are the effects different for private firms for which only the Directive applies, in contrast to larger PIEs?

Fourth, each Member State of the EU has its distinct tax policy, and the EU offers a dynamic environment when it comes to tax policies and tax rate variations. This is in stark contrast to the US, where the corporate tax rate is fairly stable over time, which the exception of the 2017 Tax Cuts and Jobs Act (TCJA) which reduced the corporate tax rate from 35% to 21%.[25] Data availability in the European Union in combination with the many tax policy changes can therefore

[25] The TCJA included not only a tax rate change, but a whole range of policy changes. For example, the TCJA implemented a shift from a worldwide tax system to a territorial tax system for multinational corporations.

serve as a laboratory for answering country-specific as well as broader research questions. For example, recent examples of tax rate changes in the EU include Belgium in 2020 (-4.4), France in 2021 (-3.6), Greece in 2018 (-5.0), Hungary in 2017 (-10.0), and Latvia in 2018 (+5.0).

5.3 The EU as a setting

At least five aspects of the institutional context of the EU make it very interesting to use as a research setting. First, since all limited liability firms, independent of their listing status, are required to file financial statements, and the Bureau van Dijk data collects this information[26], the European Union is particularly interesting to research private firms. Since private firms represent close to 43% of corporate assets and employ the majority (61.8%) of the total workforce in Europe (Beuselinck et al., 2023) and the vast majority of these firms use local GAAP, understanding the determinants and consequences of changes in local GAAP standards across the European Union is as important to study as are the determinants and consequences of IFRS.[27] Additionally, since the vast majority of public firms' subsidiaries are privately owned, this setting and data provide ample opportunity to also study group structures. We refer to Beuselinck et al. (2023) for an overview of research opportunities on private firms using a three-pronged structure: (1) research opportunities understanding private firms per se, (2) research opportunities to understand the difference between private and public firms, and (3) using private firms as a research setting.

Second, as previously explained, companies listed on exchange-regulated markets operate under a different regulatory framework. Although their shares are publicly traded, they

[26] For the European Economic Area, the Amadeus data base maintained by Bureau van Dijk consists of 99.87% private firms (Beuselinck et al, 2023).
[27] Consistent with that, several papers have already honed in on country-specific major local GAAP changes: Germany in 2010 (Pierk and Weil, 2016), Ireland in 2015 (Arafat et al., 2020), Malta in 2009 (Alexander and Micallef, 2011; Micallef, 2017), Portugal in 2010 (Guerreiro et al., 2015; Isidro and Pais, 2017), Sweden in 2003, Spain in 2008, and the UK in 2015 (Arafat et al., 2020).

are not subject to the majority of security market Directives and the IFRS regulation. While a few firms may choose to adopt IFRS or offer supplementary information, there remains a gap in our understanding of the demand and supply of accounting information within these markets. Consequently, further research is essential to gain a deeper insight into the significance of accounting and auditing in this context.

Third, the layered framework of regulation in the EU creates, as we mentioned before, substantial variation in the intensity of implementation. We only have a limited understanding of why countries choose certain options allowed within the Directives, such as which firms are allowed or required to use IFRS, or why countries exempt smaller firms from some administrative burden or choose not to do so. Potential differences might be explained by differences in legal systems, administrative processes, tax considerations, and differences in funding opportunities or shareholder composition.

Fourth, there are 24 official languages spoken in the EU, making it a very interesting setting to study the importance of commonality or lack thereof in languages spoken on the financial accounting, auditing and tax functions, as well as on the accessibility of financial statements by audiences of differing language ability. Jeanjean et al., (2015) find that firms issuing an annual report in English in addition to the local-language report is associated with a decrease in information asymmetry and an increase in analyst following. In an experiment where participants had to classify a person as a related or non-related party following the relevant accounting standard where they were given either the English-language or translated into local language version of the text of the standard, Holthoff et al. (2015) found that the use of the mother tongue version of the standard improved the classification, potentially affecting both the provider and the auditor of this financial information. Understanding that languages may create barriers in audits of multinationals, global audit firm networks may employ bilingual professionals during a group audit (Deloitte, 2021). A particular regulation that researchers could look into is Denmark allowing English-only annual financial reports in 2014.

Fifth, currently only 20 out of 27 EU countries use the common Euro as their currency; other countries use their local currency (https://european-union.europa.eu/institutions-law-budget/euro/countries-using-euro_en). The Euro launched in 2002, and some of the countries that joined as a Member State after that date have not yet adopted the Euro but must do so once they have met the necessary conditions lined out in the Maastricht Treaty: Bulgaria, Czechia, Hungary, Poland, Romania and Sweden. Denmark is an exception. While it joined the EU in 1973, it has negotiated an opt-out from adopting the Euro and continues to use the Danish Krone. Obviously, the UK – no longer an EU member – continues to use the British Pound. The functional currency of an entity is determined based on the primary economic environment where it operates and generally a foreign currency transaction is recorded using the spot conversion rate on the date of the transaction (IAS 21). To include entities with a different functional currency in consolidated financial statements, the functional currency will be translated into the reporting currency. Foreign currency translations are hence an interesting topic to research in this setting. Hribar and Collins, (2002) for example, show that errors in estimating accruals are large in the presence of foreign currency translations.

6. Upcoming regulations

In the near future, several new accounting regulations will roll out, hence providing new opportunities for research once data becomes available. The taxonomy regulation that requires large PIEs to disclose to what extent their economic activities qualify as environmentally sustainable has been in effect since the start of 2022. The Corporate Sustainability Reporting

Directive (CSR) 2022/2464 (European Parliament, 2022a) is an important upcoming regulation in the European Union's ongoing commitment to corporate sustainability and responsibility[28]. The CSR Directive mandates that companies produce regular reports concerning the social and environmental risks they encounter, as well as the effects of their operations on people and the environment (“double materiality”). Companies are required to provide detailed reports on environmental, social, and governance (ESG) issues, aiming to enhance transparency and comparability in these important domains. The CSR Directive will be implemented in different stages. First, starting financial year 2024, it applies to companies already subject to the Non-Financial Reporting Directive (PIEs with more than 500 employees). By the financial year 2025, it extends to other large companies, and by the financial year 2026, listed Small and Medium-sized Enterprises (SMEs) are included. The CSR Directive provides ample research opportunities: To what extent does the Directive improve and harmonize sustainability reporting? How will CSR reporting affect capital allocation by investors? How will CSR reporting affect decision-making within the firm (e.g., their investments)? Will this increased reporting burden place European firms at a competitive disadvantage due to higher costs compared to less strict sustainability reporting regimes with single materiality[29], or will it make these firms more attractive to a wide range of stakeholders including investors, employees, and customers?

The rollout of the global minimum tax (Pillar 2), and its implementation via Directive 2022/2523 (European Parliament, 2022b), will be interesting to tax accountants and economists.

[28] Published 16. December 2022 in Official Journal of the *European Union.*
[29] Double materiality considers both how sustainability impacts the financial performance of the firm, as well as the firm’s impact on society and environment. Sustainability reporting standards with single materiality mainly focus on the investors’ perspective and, therefore, only focus on how sustainability-related risks might affect financial performance (e.g., the standards issued by International Sustainability Standards Board (ISSB)).

Companies with a global turnover above EUR 750 million will be subject to a minimum effective tax rate of 15%. Lastly, mid 2024, country-by-country reporting for every tax jurisdiction comes into effect for large multinationals. Since both the global minimum tax as well as country-by-country reporting will be major shifts in taxation and reporting thereof, we expect that accounting researchers with a focus on corporate taxation will play a major role in understanding the consequences of these regulatory changes.

7. Conclusion

In this paper, we provide a comprehensive overview of accounting-related regulatory changes in the 27 EU countries and the UK based on both an extensive literature review as well as input by country and topic academic experts. We classify all regulatory events in a framework that captures the topic being regulated (financial accounting, auditing, tax, other disclosures) as well as the set of firms to which the regulation applies. The accompanying website (http://www.eu-regulations.com) provides visual representations. The website and this paper should lower the cost for researchers, reviewers and editors to better understand the regulatory setting of each EU country over time. We also provide researchers with insight into available research opportunities to address their research questions when using the EU or a particular EU country as a laboratory.

While we highlight that European regulation is complex and there are many potential confounding events, we also would like to stress that our paper should not be misused to easily reject papers in the review process since there might be confounding events. Instead, we would like to encourage authors, reviewers and editors to discuss if and how confounding events might influence a particular research design/identification strategy. At the very least, a researcher should caveat potential other forces at play and argue why they believe their findings are at least primarily driven by their specific setting.

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Figure 1: Average number of regulations implemented in the EU countries and the UK 5 years around a respective year t (from t-2 to t+2)

Figure 2: Average number of regulations 5 years around a respective year t (t-2 to t+2) by category (Financial accounting, Audit, Tax, Other disclosures)

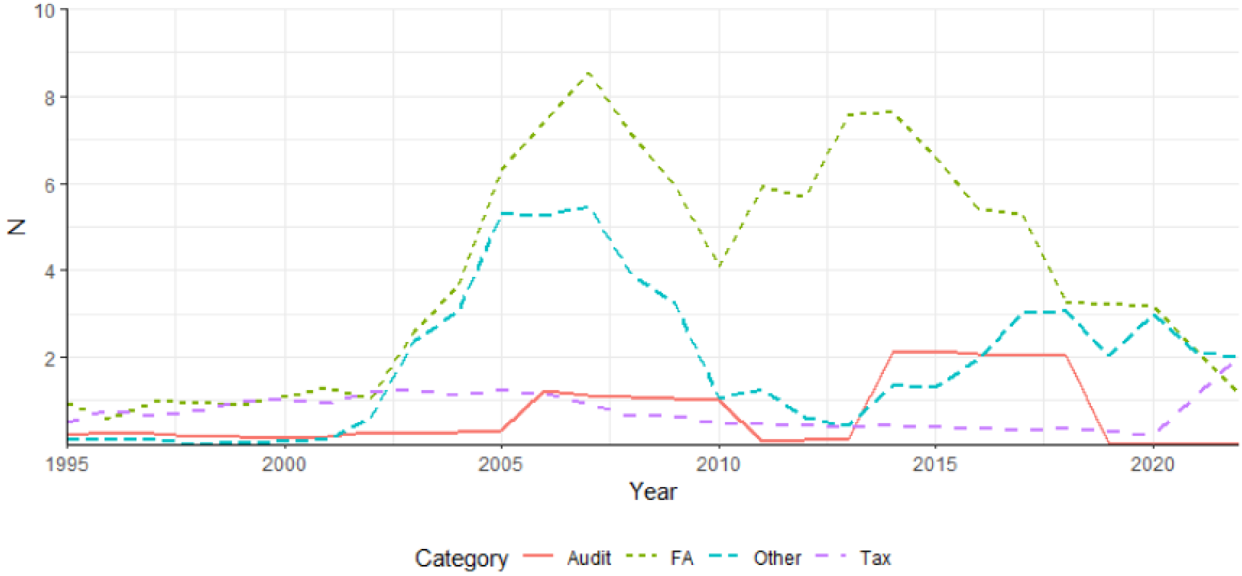
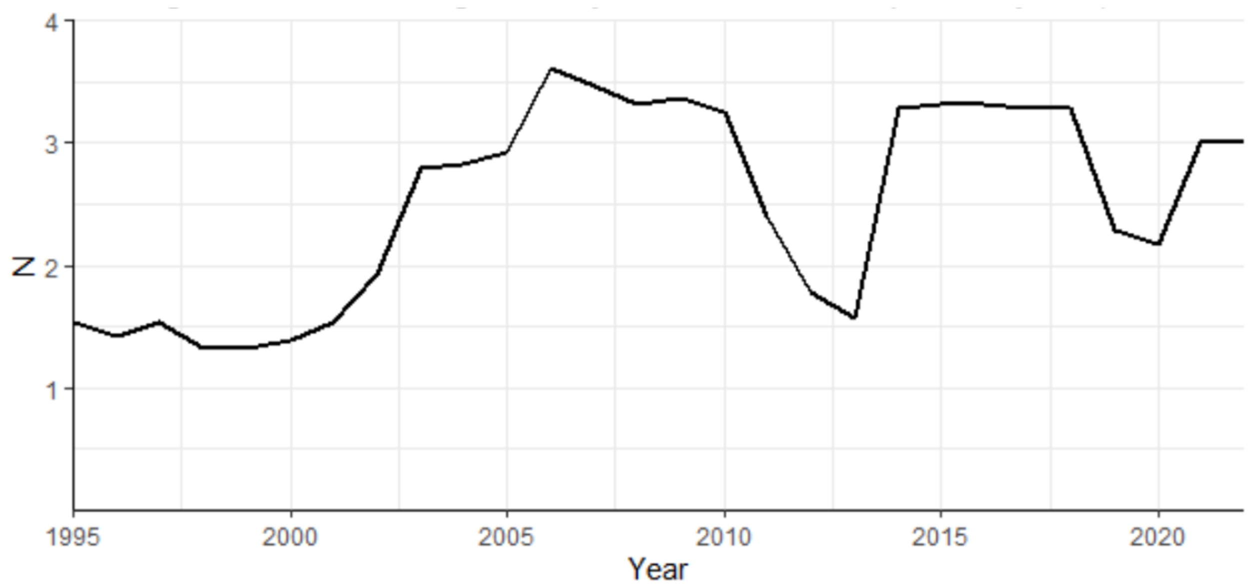


Figure 3: Average number of different categories of accounting regulations affected in 5 years around year t (from t-2 to t+2)



Note: We define 4 categories of accounting regulations (Financial Accounting, Auditing, Tax, and Other Disclosures). Therefore, the number of categories affected range between 0 and 4.

Table 1: Number of regulations implemented 5 years around a respective year t (t-2 to t+2) over time and across countries

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	GR	HU	IR	IT	LV	LT	LU	MA	NL	PO	PT	RO	SK	SI	ES	SE	UK	avg	'1'	'0'
95	6	1	1	0	1	1	2	2	4	2	3	1	2	1	1	0	1	2	1	1	2	1	3	1	2	2	2	3	**1.8**	**12**	**2**
96	6	0	2	1	1	2	1	2	4	2	4	1	2	1	2	0	1	2	1	0	2	0	3	2	2	1	2	2	**1.8**	**8**	**4**
97	5	1	2	1	1	1	1	1	5	3	5	1	1	3	3	0	0	3	1	1	2	1	4	1	1	2	2	3	**2.0**	**13**	**2**
98	4	2	2	1	2	3	1	0	3	2	5	1	0	4	4	0	0	3	0	1	2	1	2	2	1	1	1	4	**1.9**	**8**	**5**
99	2	2	3	2	1	3	0	0	2	3	7	2	0	5	5	0	1	3	0	1	3	1	4	2	1	1	0	4	**2.1**	**6**	**6**
00	1	2	3	2	1	5	1	0	1	3	7	2	0	6	5	1	1	3	0	3	4	2	4	3	1	1	0	2	**2.3**	**8**	**4**
01	1	3	4	1	3	4	1	3	1	4	7	2	0	6	3	2	2	2	0	4	4	2	4	2	1	1	1	3	**2.5**	**7**	**2**
02	0	2	5	1	4	7	2	4	1	4	10	3	2	5	2	4	4	1	2	4	6	2	2	4	3	0	1	2	**3.1**	**4**	**2**
03	5	7	7	1	7	7	6	7	5	9	13	7	6	8	6	8	6	5	5	10	8	7	4	6	7	4	6	4	**6.5**	**1**	**0**
04	7	10	7	1	9	10	8	9	7	10	14	9	8	9	8	10	7	8	7	11	8	9	3	9	10	5	8	6	**8.1**	**1**	**0**
05	12	15	16	1	13	12	13	15	14	15	18	15	13	14	13	14	13	11	12	16	11	13	12	14	17	10	14	12	**13.1**	**1**	**0**
06	14	17	16	2	15	15	15	14	17	15	19	17	16	15	17	15	15	14	16	17	13	15	14	16	19	13	15	14	**15.0**	**0**	**0**
07	16	18	17	2	16	15	15	15	18	15	18	17	16	16	20	15	16	17	17	19	14	16	17	18	19	15	16	16	**16.0**	**0**	**0**
08	11	12	15	2	12	13	12	12	14	11	16	14	13	12	17	11	15	13	14	14	10	12	15	15	15	11	12	13	**12.7**	**0**	**0**
09	9	9	14	1	10	10	10	11	12	10	13	12	11	11	14	9	13	10	12	13	9	11	14	12	12	11	10	12	**10.9**	**1**	**0**
10	5	6	5	1	7	7	5	6	6	6	10	7	7	6	11	5	8	7	8	7	6	8	8	7	5	8	5	7	**6.6**	**1**	**0**
11	7	6	6	15	6	7	7	8	6	7	10	8	7	7	10	6	8	7	7	8	7	10	9	9	6	8	7	8	**7.8**	**0**	**0**
12	6	6	5	16	5	5	8	7	6	7	7	8	6	6	8	6	6	5	5	8	6	9	7	7	5	7	7	7	**6.8**	**0**	**0**
13	8	8	7	18	6	7	9	9	8	8	8	9	7	10	8	8	8	7	7	9	8	9	9	9	7	9	8	10	**8.5**	**0**	**0**
14	11	11	10	21	10	10	12	11	11	11	11	12	10	12	11	11	11	10	10	12	11	12	12	12	11	12	11	14	**11.5**	**0**	**0**
15	10	9	9	21	9	9	11	10	10	10	9	11	11	11	10	10	10	9	9	11	10	10	9	11	10	10	10	14	**10.5**	**0**	**0**
16	9	10	9	9	9	9	10	9	10	10	9	10	12	11	10	11	10	9	9	11	10	9	9	11	10	9	8	12	**9.8**	**0**	**0**
17	10	12	10	10	10	10	10	10	10	11	10	13	13	12	11	11	11	10	10	10	10	10	10	11	11	10	9	14	**10.7**	**0**	**0**
18	8	11	8	8	9	8	8	8	8	9	8	11	11	8	10	9	8	8	8	8	8	9	8	9	9	8	7	12	**8.7**	**0**	**0**
19	5	8	5	5	5	5	5	5	5	6	7	7	8	5	7	6	5	5	5	5	5	5	5	6	5	4	4	8	**5.6**	**0**	**0**
20	6	9	6	6	6	6	6	6	6	7	8	8	7	6	7	7	6	6	6	6	6	6	6	7	6	5	5	7	**6.4**	**0**	**0**
21	5	7	5	5	5	5	5	5	5	6	7	7	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	7	**5.4**	**0**	**0**
22	5	7	5	5	5	5	5	5	5	6	7	5	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	4	**5.2**	**0**	**0**
avg	**6.9**	**7.5**	**7.3**	**5.7**	**6.7**	**7.2**	**6.8**	**6.9**	**7.3**	**7.6**	**9.6**	**7.9**	**7.1**	**7.9**	**8.4**	**6.8**	**7.0**	**6.8**	**6.5**	**7.9**	**7.0**	**7.1**	**7.4**	**7.7**	**7.4**	**6.4**	**6.5**	**8.0**	7.3	0	0
'1'	**2**	**2**	**1**	**10**	**5**	**2**	**5**	**1**	**3**	**0**	**0**	**4**	**1**	**2**	**1**	**1**	**4**	**1**	**3**	**4**	**0**	**4**	**0**	**2**	**5**	**5**	**3**	**0**		71	
'0'	**1**	**1**	**0**	**1**	**0**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**5**	**2**	**0**	**4**	**1**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**0**			27

Table 2: Number of categories of regulations implemented 5 years around a respective year t (t-2 to t+2)

	AT	BE	BG	HR	CY	CZ	DK	EE	FI	FR	DE	GR	HU	IR	IT	LV	LT	LU	MA	NL	PO	PT	RO	SK	SI	ES	SE	UK	avg	'1'
95	3	1	1	0	1	1	1	2	4	2	2	1	1	1	1	0	1	2	1	1	2	1	3	1	2	2	2	3	**1.5**	**14**
96	3	0	1	1	1	1	1	2	4	1	3	1	1	1	2	0	1	1	1	0	2	0	3	2	2	1	2	2	**1.4**	**13**
97	2	1	1	1	1	1	1	1	4	2	3	1	1	2	2	0	0	2	1	1	2	1	3	1	1	2	2	3	**1.5**	**14**
98	1	2	1	1	2	2	1	0	2	2	3	1	0	2	2	0	0	2	0	1	2	1	1	2	1	1	1	3	**1.3**	**11**
99	1	2	1	1	1	2	0	0	1	3	3	2	0	2	2	0	1	2	0	1	2	1	2	2	1	1	0	3	**1.3**	**10**
00	1	2	1	1	1	3	1	0	1	3	4	2	0	2	2	1	1	2	0	1	2	1	2	2	1	1	0	1	**1.4**	**13**
01	1	3	2	1	2	3	1	1	1	3	3	2	0	2	2	1	1	2	0	1	2	1	2	1	1	1	1	2	**1.5**	**13**
02	0	2	2	1	3	4	1	2	1	3	4	2	2	2	2	2	2	1	2	2	3	2	2	2	2	0	1	2	**1.9**	**5**
03	3	3	2	1	3	3	3	2	3	4	4	4	3	4	2	3	3	3	2	3	3	3	3	3	2	2	2	2	**2.8**	**1**
04	3	3	2	1	3	3	3	2	3	4	4	4	3	4	3	3	3	3	2	3	3	3	3	3	2	2	2	2	**2.8**	**1**
05	3	3	3	1	3	3	4	2	4	4	4	4	3	4	3	3	3	2	2	3	3	3	3	3	3	2	2	2	**2.9**	**1**
06	4	4	4	1	4	4	4	3	4	4	4	4	4	3	4	4	3	3	3	4	4	4	4	4	4	3	3	3	**3.6**	**1**
07	4	4	4	1	4	4	4	3	4	3	4	4	3	3	4	3	4	3	3	4	3	3	4	4	4	3	3	3	**3.5**	**1**
08	3	3	4	1	3	4	4	3	3	3	4	4	3	3	4	3	4	3	3	4	3	3	4	4	4	3	3	3	**3.3**	**1**
09	3	3	4	1	3	4	4	3	3	3	4	4	3	3	4	3	4	3	3	4	3	4	4	4	4	3	3	3	**3.4**	**1**
10	3	3	3	1	3	4	3	3	3	3	4	4	3	3	4	3	4	3	3	4	3	4	4	3	3	4	3	3	**3.3**	**1**
11	2	2	2	3	2	2	2	2	2	2	2	3	2	2	3	2	3	2	2	3	2	3	3	3	2	3	3	3	**2.4**	**0**
12	1	2	1	3	1	1	2	1	2	2	1	3	1	1	3	1	2	1	1	3	2	2	1	2	1	3	3	3	**1.8**	**13**
13	1	2	1	3	1	1	1	1	2	2	1	2	1	1	2	1	1	1	1	2	2	2	1	2	1	3	2	3	**1.6**	**15**
14	3	3	3	3	3	3	3	3	4	4	3	4	3	3	4	3	3	3	3	3	3	4	3	4	3	4	4	3	**3.3**	**0**
15	3	3	3	3	3	3	3	3	4	4	3	4	4	3	4	3	3	3	3	3	3	4	3	4	3	4	4	3	**3.3**	**0**
16	3	4	3	3	3	3	3	3	4	4	3	4	4	3	4	4	3	3	3	3	3	3	3	4	3	4	3	3	**3.3**	**0**
17	3	4	3	3	3	3	3	3	3	4	3	4	4	3	4	4	3	3	3	3	3	3	3	4	3	4	3	3	**3.3**	**0**
18	3	4	3	3	3	3	3	3	3	4	3	4	4	3	4	4	3	3	3	3	3	3	3	4	3	4	3	3	**3.3**	**0**
19	2	3	2	2	2	2	2	2	2	3	2	3	3	2	3	3	2	2	2	2	2	2	2	3	2	2	2	3	**2.3**	**0**
20	2	3	2	2	2	2	2	2	2	3	2	3	2	2	2	3	2	2	2	2	2	2	2	3	2	2	2	2	**2.2**	**0**
21	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**3.0**	**0**
22	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	**3.0**	**0**
Ø	**2.4**	**2.7**	**2.3**	**1.8**	**2.4**	**2.7**	**2.4**	**2.1**	**2.8**	**3.0**	**3.1**	**3.0**	**2.3**	**2.5**	**2.9**	**2.3**	**2.4**	**2.4**	**2.0**	**2.5**	**2.6**	**2.5**	**2.8**	**2.9**	**2.4**	**2.5**	**2.3**	**2.7**	2.5	**0**
'1'	**6**	**2**	**8**	**15**	**7**	**5**	**8**	**4**	**4**	**1**	**2**	**4**	**5**	**4**	**1**	**4**	**6**	**4**	**5**	**6**	**0**	**6**	**3**	**3**	**7**	**5**	**3**	**1**		**129**

Note: We define 4 categories of regulations: financial accounting, auditing, tax and other disclosure regulations. Therefore, the numbers in the matrix range between 0 and 4.

Table 3: Country Overview

Country	Publications	SSRN	GDP	Publ./GDP	Firms
Austria	16	7	433.3	0.037	145,282
Belgium	56	5	521.9	0.107	458,034
Bulgaria	2	1	69.9	0.029	365,893
Croatia	3	1	57.2	0.052	128,858
Cyprus	3	0	24.6	0.122	625
Czech Republic	16	7	245.3	0.065	201,189
Denmark	45	8	356.1	0.126	300,280
Estonia	4	2	30.7	0.131	155,398
Finland	93	9	269.8	0.345	190,411
France	179	30	2,630.3	0.068	644,226
Germany	223	77	3,846.4	0.058	471,327
Greece	40	3	188.8	0.212	24,835
Hungary	7	3	155.8	0.045	434,752
Ireland	71	7	425.9	0.167	165,066
Italy	126	33	1,888.7	0.067	1,011,847
Latvia	3	1	33.7	0.089	113,226
Lithuania	3	1	56.5	0.053	78,270
Luxembourg	2	2	73.4	0.027	77,894
Malta	5	0	14.6	0.341	14,852
Netherlands	82	10	913.9	0.090	756,673
Poland	21	4	596.6	0.035	306,007
Portugal	26	5	228.5	0.114	398,688
Romania	11	1	248.7	0.044	736,154
Slovakia	3	1	105.2	0.029	218,510
Slovenia	9	2	53.6	0.168	74,092
Spain	113	22	1,281.5	0.088	804,257
Sweden	78	16	541.2	0.144	523,721
UK	993	99	2,764.2	0.359	3,172,200
Europe*	1,091	176			
European Union (+UK)			15,292.1		11,972,567

Notes: The column 'Publications' ('SSRN') shows the number of publications (SSRN working papers) for which the respective name was found in the title, keywords, or abstract. The column 'GDP' shows the 2020 gross domestic product in billion USD (Source: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD, accessed on 2/2/2022). The column 'firms' shows the number of firms of the country as reported in Bureau van Dijk's database *Amadeus* accessed through the Wharton Research Data Service (WRDS) for the year 2019 (accessed on Feb 5, 2022). We keep only firms with non-missing and positive total assets.