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CORPORATE TAX DISCLOSURE

Jeffrey L. Hoopes
Leslie Robinson
Joel Slemrod

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ABSTRACT

Policies that require, or recommend, disclosure of corporate tax information are becoming more common throughout the world, as are examples of tax-related information increasingly influencing public policy and perceptions. In addition, companies are increasing the voluntary provision of tax-related information. We describe those trends and place them within a taxonomy of public and private tax disclosure. We then review the academic literature on corporate tax disclosures and discuss what is known about their effects. One key takeaway is the paucity of evidence that many tax disclosures mandated with the aim of increasing tax revenue have produced additional revenue. We highlight many crucial unanswered questions, answers to which would inform future tax legislation and financial accounting rule making.

Jeffrey L. Hoopes
Kenan-Flagler Business School
University of North Carolina
300 Kenan Center Drive
Chapel Hill, NC 27599
hoopes@unc.edu

Leslie Robinson
Dartmouth College
Tuck School of Business
leslie.a.robinson@tuck.dartmouth.edu

Joel Slemrod
University of Michigan
701 Tappan Street
Room R5396
Ann Arbor, MI 48109-1234
and NBER
jslemrod@umich.edu

1. Introduction

Public dialogue is increasingly focused on the tax behavior of large businesses, including how much tax they remit and to whom.[1] Various parties fuel this dialogue, including investors, the media, taxing authorities, politicians, customers, activist groups, think tanks, and the general public. Growing fiscal strain has added urgency to these discussions, with governments looking to corporate taxes to raise additional tax revenue. As a result, hoping that changing disclosure mandates may induce increased tax compliance and raise revenue, tax jurisdictions across the world have enacted, or are considering enacting, increased tax disclosure requirements.[2] These enacted and proposed tax disclosure mandates are coming when firms are already expected to disclose more than ever before (Müller, Spengel, and Vay 2020).

However, the use of tax disclosure as a policy instrument should be contingent upon what we know about its consequences, and its success, in the past. To be sure, it is impossible to simply summarize whether it has or has not worked, as there are a variety of different tax disclosures and different objectives of tax disclosure to consider. This review lays out a framework for thinking about corporate tax disclosure and documents what is known and what is not, in hopes to inform future research and policy. We divide disclosures into two main categories, depending on whether they are mandatory or voluntary. We then subdivide these disclosures into whether they are made publicly or privately (generally to the tax authority) and propose a separate category for disclosures made by third parties which are independent of the corporation or the tax authority.

[1] We use the term tax behavior throughout this text. By this we mean actions that firms take to explicitly change their current or future expected tax liability or actions firms take in response to the tax system.
[2] Throughout this paper, we use the term "business" and "corporate" interchangeably. While there are obviously many legal and tax distinctions between these two terms, with regards to tax disclosure most of what we say applies to both corporations and businesses generally. Most empirical studies we review are focused specifically on corporations.

A vast literature in financial accounting examines the myriad non-tax disclosures that firms are subject to. A major focus of recent work in financial accounting is what, if any, changes in firm behavior will disclosure prompt, and will investors find the information useful. Similarly, the focus in tax disclosure is whether it changes firm behavior and thereby generates revenue, and how the new information gets used (which, in turn, will likely motivate changes in behavior). While there are many similarities in financial accounting and tax disclosure, there are many differences. We briefly discuss the similarities and differences between financial accounting disclosure and tax disclosure in Section 2 of this paper.

There has been a dramatic increase in required tax disclosures in the past decade. This is likely due to many factors, foremost of which is the need for extra tax revenue to fund expanding government combined with a decreased willingness of legislatures worldwide to meaningfully increase corporate tax rates or expand tax bases. Further, while legislating changes to tax rates or bases on a global scale has proved difficult (but which may be realized in Pillar II of the OECD's BEPS 2.0 project), mandating disclosure is easier. In the face of perceived corporate tax competition, mandating disclosure that may raise revenue is likely seen by some as a partial alternative to more substantive tax hikes. Finally, the rapidly increasing ability of tax authorities to process and link vast amount of data has also increased the expected usefulness of disclosure mandates. For these reasons, tax disclosure has been rapidly expanding over the past decade and, as a result, the papers that examine the effects of tax disclosure are all relatively recent.

The rapid pace of policy initiatives regarding corporate tax disclosure displays several clear trends. First, there is movement towards greater disclosure of private information to tax authorities, tax authorities sharing information among themselves, or third parties sharing information on the firm with taxing authorities. A second trend involves expanding public access to previously private tax information, and public interest in such information (for example, by activists interested in shaming firms). This may include government mandates for taxing authorities to publicly disclose information, or requirements for firms themselves to publicly disclose information they previously shared privately. A third trend involves enhanced disclosure requirements imposed by public issuers of audited financial statements and increased demand from various stakeholders (often non-shareholder stakeholders) for sustainability reporting, with tax viewed as an important element.[3] In contrast to the second trend involving public disclosure of existing, albeit private, tax information, this trend involves public disclosure of new kinds of information.

Considering this momentum, it is important to understand the effects of the disclosure of tax information. Tax information is any communication that may be useful in understanding a corporation's tax behavior, defined as the set of actions managers at corporations take intended to change the corporate tax liability. We highlight some of the key conclusions in the literature about the effectiveness and efficiency of corporate tax disclosure regulation, and both its intended and unintended consequences. One big takeaway from the papers that directly evaluate disclosure regimes' ability to raise revenue is their limited ability to achieve their goals. While the goals of different disclosure regimes vary, most are implemented with the aim of improving tax compliance. For example, public mandatory disclosure of tax return information in Australia or Japan (Hoopes, Robinson, and Slemrod 2018; Hasegawa, Hoopes, Ishida, and Slemrod 2013) and mandatory public country-by-country reporting (Joshi, Outslay, and Persson 2020) seem to not have been successful at increasing the amount of reported taxable income or decreasing income shifting. At least according to some, Schedule UTP and Schedule M-3 have had little impact on tax administration and have not met their objectives (TIGTA 2018; IRS 2013). Mandatory third-

[3] See, for example, https://taxexecutive.org/esg-tax-transparency/.

party reporting, in some cases, also seems to have generated little additional tax revenue (Slemrod, Collins, Hoopes, Reck, and Sebastiani 2016). Likewise, voluntary disclosures and third-party shaming campaigns by the media (Chen, Schuchard, and Stomberg 2019; Xia 2020; Asay, Hoopes, Thornock, and Wilde 2023) do not appear to have generated a change in tax behavior that results in additional revenue.

Another large takeaway from this literature is that taxpayers facing non-universal mandatory disclosure regimes often take actions to avoid disclosure (Hoopes et al. 2018; Hasegawa et al. 2013). These two takeaways from the literature raise additional questions. For example, if disclosure regimes do not generate substantial additional revenue, then why do firms take actions to avoid them? Or is it the disclosure avoidance itself that prevents taxing authorities from raising additional revenue? It may be that these disclosure avoidance actions are relatively costless for firms, such that any anticipated tax costs may generate an expected net benefit to avoiding the disclosure regime. It may also be that there are real or perceived non-tax costs of disclosure that firms are avoiding by not disclosing, such as perceived reputational costs, compliance costs, proprietary costs, and the like.[4]

However, there are certainly examples of disclosure regimes that have been successful. For example, increasing tax disclosures of firms in the US to the IRS in the Compliance Assurance Process (CAP), an IRS program that provides companies with tax certainty in exchange for real-time audits and increased disclosure, has proved to be so beneficial that the IRS has expanded the program and many firms have voluntarily signed up for it. There has been some limited evidence

[4] In the financial accounting literature, proprietary costs of disclosure often involve a firm's competitors learning information that would erode the firm's competitive advantage, such as how profitable certain product lines are, or where to sell products (Verrecchia 1983). In the tax setting, one proprietary cost is the cost of the firm's competitors better understanding, and therefore being able to replicate, tax planning strategies (Cockfield and MacArthur 2015). These costs may also entail the tax authority better understanding a firm's tax strategies (Bozanic, Hoopes, Thornock, and Williams 2017).

that private country-by-country reporting, a system of reporting recently mandated in many countries where companies report on their tax activity for each country in which they have a presence, has increased tax compliance (although the exact channels by which it does so are unclear, and only early evidence is available). In sum, some disclosure policies have unintended and undesirable consequences and must be carefully designed to minimize these consequences, while simultaneously giving them a chance to succeed.

This paper proceeds as follows: Section 2 first lays out the key differences between tax disclosure and financial accounting disclosure. Section 3 presents a framework for organizing the corporate tax disclosure literature, establishing some consistent definitions and terminology. Sections 4 through 6 build on this framework to discuss the extant empirical work concerning the economic effects of each distinct subset of tax disclosure that we highlight in our framework – mandatory, voluntary and third-party. Throughout this section, we highlight important gaps in the literature where more research would be useful. We review research that examines data from many tax jurisdictions, although we acknowledge that our personal knowledge and experience renders this review somewhat US-centric. Section 7 summarizes unifying themes for future research that emerge from our review of the literature while Section 8 offers concluding remarks.

2. The Relationship between Tax Disclosure and Financial Accounting Disclosure

Although investigation of the effects of tax disclosure is relatively new (partly because many mandates are recent), much is known about corporate disclosure of financial information in general. A very large literature in accounting, comprehensively surveyed several times (Blankespoor, deHaan, and Marinovic 2020; Healy and Palepu 2001; Leuz and Wysocki 2008; Beyer, Cohen, Lys, and Walther 2010), has addressed disclosure—both voluntary and mandatory disclosure, and from both a positive and normative perspective. As a result, we do not discuss general findings in the disclosure literature, except in cases where we contrast them to tax disclosure.

For example, the normative analysis of optimal mandatory nontax financial disclosure begins with the "unraveling" result of Grossman (1981) and Milgrom (1981), which shows that, in a stylized model with certain characteristics (e.g., costless disclosures), companies will disclose all valuable information that they have. However, justification for mandatory disclosure can arise in the presence of externalities. For example, one firm's disclosure might provide information about another firm, potentially justifying mandatory disclosures on the grounds on informational efficiency (and ultimately social welfare) that enables information gathering at a lower cost. One specific externality that is generally ignored in this literature is the fiscal externality—how corporate disclosure would affect tax revenues. The tax system imposes costs. There are administrative costs of actually collecting taxes (hiring revenue agents, etc.), but also indirect costs such as inefficient taxpayer behavior motivated by taxes.[5] As long as collecting taxes is costly, and disclosure affects tax revenues, then that could be considered in characterizing optimal mandatory disclosure rules—all other things equal, the more revenue it causes to be raised, the better is any regime.[6] To put it another way, any policy regime that is optimal ignoring taxes will almost certainly be non-optimal once taxes are recognized, assuming disclosure changes corporate tax behavior (an empirical question addressed in many of the papers included in this review). These justifications must be weighed against the costs of mandatory tax disclosure, including compliance costs and the cost to companies releasing proprietary information.

[5] In public economics, the loss of economic efficiency due to taxation is referred to as "excess burden".

[6] One related issue is that regulators charged with financial accounting disclosure regimes, such as the Financial Accounting Standards Board (FASB), have historically, and justifiably, been unwilling to mandate disclosures whose objectives fall outside their historical purview. This unwillingness is supported by many in the academic accounting community (Belnap, et al. 2019).

Thus, as we see from this example, it is useful to consider how what we know, and how we should think, about disclosure might be different for financial accounting disclosures than for tax disclosures. [7] There are several differences we would like to highlight, with the objective of using what we know about financial accounting disclosures to contrast to tax disclosure. First, firms have more stakeholders in the tax setting than in the financial setting, each demanding tax information for different reasons.[8] This is especially challenging because firms may ideally want to disclose different, even inconsistent, answers to the same question to different stakeholders.[9]

Second, disclosure regulations in the tax context sometimes address the needs of two specific stakeholders – the tax authority and firms' current and potential investors. Consequently, these rules often include both public and private disclosures made by firms. Disclosure regulation in financial accounting is almost universally public by its nature,[10] whereas tax disclosure can be either public or private. This creates a potentially delicate dynamic between mandatory and voluntary disclosure of tax information across both public and private disclosure contexts. With two distinct disclosure regulation environments for firms – public and private – how firms comply

[7] Although implicitly what investors seek to know is the current and prospective profitability of firms, after tax, the disclosure literature almost never distinguishes the pretax and tax components of after-tax cash flows; indeed, the Beyer et al. (2010) survey does not include the word "tax" (or non-tax, for that matter). This is in spite of the fact that the stochastic nature and predictability of the tax component certainly differs from the pretax component. If tax liability were a fixed percentage of pretax income, this would not be an issue, but that is not how the tax system works.
[8] For instance, investors want information about tax payments and their uncertainty to help forecast future after-tax cash flows (Frischmann, Shevlin, and Wilson 2008), analysts want to be able to inform investors (Bratten and Hulse 2016; Hoopes 2018), the tax authority wants useful information to aid in tax administration and enforcement as well as to forecast collections (Bozanic et al. 2017; Lisowsky 2009), politicians want to be re-elected and thus must consider both the demand for information coming from voters and what information they can leverage to raise political issues (Frank, Hoopes, and Lester 2022), some customers desire to assess corporate responsibility and reputation (Asay, Hoopes, Thornock, and Wilde 2023; Mayberry and Watson 2020), the public wants to know whether the tax system is "fair" (Sheffrin 1994), and the media often seeks controversy in addition to information (Chen, Schuchard, and Stomberg 2019).
[9] One interesting example of this was the allegation that the Trump Organization provided valuations of assets at one value for insurance purposes, and valued the same assets at dramatically lower levels for property tax purposes (https://www.businessinsider.com/trump-organization-investigation-new-york-prosecutors-property-value-discrepancy-2021-11). Public disclosure of both values may well impede such behavior but would also have costs. For other examples, see Hoopes (2020).
[10] There are limited examples of non-public mandatory disclosure in accounting (Verrecchia and Weber 2006).

with disclosure regulation and the types of voluntary disclosure they might provide can depend in part on the interdependencies across these disclosure environments, and the private costs of tax disclosure (Bozanic, Hoopes, Thornock, and Williams 2017).

Third, because of having many different stakeholders with many different objectives, the primary objective of most mandatory tax disclosure regulations – to provide information for taxing authorities and investors and to generate tax revenue – is often confounded by competing objectives. Tax disclosure rules can be created to provide useful information and change firm behavior, but also for other purposes such as to win elections, to generate public support for new tax laws, as well as to act as a deterrent to aggressive tax planning. Financial accounting disclosure rules generally arise for one purpose -- to give investors a better view inside the firm.[11] Financial accounting as promulgated by the FASB, however, does not typically have the specific objective of changing firm behavior, but rather has the objective of providing information to others who seek to assess the success of the firm. However, this may end up changing firm behavior. While historically financial accounting disclosures about taxes were not intended to change firm behavior, there are debates about whether financial accounting rules should be used to increase tax revenue (Belnap, et al. 2019).

Finally, the largest corporation and the humblest citizen have something in common—they interact with the tax system. Ordinary folks may be outraged if they hear something about firms not paying taxes, which is why these issues are often seized upon by politicians of every flavor to help win elections. Whether these cases may outrage them because of some sense of fairness, or because they think they will have to pay more if corporations pay less, individual people may care

[11] Accounting disclosures are nominally designed to meet the needs of investors, creditors, suppliers, etc. (those with a contractual relationship or potential contractual relationship with the firm), although other stakeholders might indirectly benefit from the disclosures. In contrast, tax disclosures try to meet the needs of many stakeholders.

about corporate taxes. However, while sophisticated investors care deeply about financial accounting information, non-investors likely care relatively little about other corporate financial outcomes. This may result in reputational costs associated with tax choices, but probably more importantly, tax issues universally being espoused by politicians because of the perception that people do care about these issues (whether they would naturally care or not). In contrast to financial accounting, few politicians run on revising the financial accounting disclosure system.[12] This notion that corporate tax transparency is particularly linked to politics can leave firms operating in an unpredictable and constantly changing disclosure environment.

3. Tax Disclosure Framework and Recent Developments

A framework for tax disclosure must consider the many parameters involved in tax disclosure—not only the potential type and amount of tax information disclosed, but also when, how, by whom, and to whom the disclosures are made. As highlighted in Section 1, by tax information, we mean any communication that may be useful in understanding a corporation's tax behavior. Tax behavior is any action a firm takes to explicitly change their current or future expected tax liability, or actions firms take in response to the tax system. Tax disclosure is more complicated than disclosure in financial accounting settings for the myriad of reasons previously discussed. Financial accounting disclosure, and the extant literature, generally considers firms disclosing information to investors (and potential investors), either because regulations require it (mandatory disclosures) or because firms do so voluntarily (voluntary disclosures). Our corporate

[12] While this has historically been true, recently, the SEC has contemplated some disclosure mandates with potentially political motivations which may be of more interest to non-investors. While few politicians have as key policy proposals changes to the financial accounting system, there have been recent proposals to base tax liability in part on financial accounting income, which may well lead to voluntary disclosures by firms as they try to circumvent these tax consequences (Hoopes 2021). For example, if we taxed book income, one possible outcome might be firms managing their earnings downward, while simultaneously disclosing (voluntarily) information to investors that make it appear that the real economic situation of the firm is not as bad as the tax base (financial accounting numbers under Generally Accepted Accounting Principles) would suggest.

tax disclosure framework extends beyond this dichotomy of mandatory and voluntary disclosure to include multiple disclosure channels. Figure 1 illustrates our framework regarding disclosures of corporate tax information, illustrating both the multiple channels and the potential for private and public disclosure. Table 1 shows a timeline of key historical disclosure events indicating the breadth and recent increasing trend of more disclosure along with examples of any studies that examine these disclosure regimes. While there are examples from across the world, because of our backgrounds and experience, many examples throughout the review are U.S. centric.

3.1. Mandatory Disclosure

Mandatory tax disclosure is the most common form of corporate tax disclosure and the most active in terms of recent developments. This form of disclosure of tax information is compelled by regulation or law. The information may be qualitative, or quantitative, or both. Within mandatory disclosure, private disclosures are made by firms directly to taxing authorities, while public disclosures are made to the public at large.

3.1.1. Mandatory Private Disclosure

Private tax disclosures are not intended to be publicly observable and are most commonly only observable to taxing authorities. However, these private documents are sometimes leaked, and thereby become voluntary third-party public disclosures (because it is generally always a third party who voluntarily (and generally illegally) leaks them). Of all tax disclosure regulations to which firms are subject, mandatory private disclosures are the most voluminous and the costliest to comply with. This is because the tax returns that firms file with taxing authorities are examples of mandatory private disclosure. As the main audience of private disclosure is the tax authority, the objective of these disclosure mandates is to facilitate enforcement and administration of the tax code by providing taxing authorities with more information. The tax authority requires information to assess whether the amount of tax liability calculated is the correct amount due and to direct enforcement efforts. They may also require information be disclosed simply because the provision of information may have a deterrent effect. In other words, taxpayers, knowing of the information's possible use by the tax authority, may well behave differently merely in anticipation of its use in enforcement.

3.1.2. Mandatory Public Disclosure

The second category of mandatory tax disclosure is public disclosure. These disclosures are often mandated by securities regulators or accounting standards setters and appear in firms' financial statements.[13] Therefore, listed companies are subject to a greater number of public disclosure requirements than private companies. These disclosure mandates can take many forms, but the overall objective is to provide current and potential investors with information that enables them to know how much corporate tax a specific business entity remits (and will remit in the future) and any uncertainty surrounding those amounts. These disclosures also help financial statement users assess how changes in the corporate tax code might impact the entity's future cash flows. Reporting of tax information in financial statements has attracted a very large literature in financial accounting on accounting for income taxes (for a review of this literature, see Graham, Raedy and Shackelford (2011)). We will generally not review papers that discuss tax disclosure intended to inform investors about the cash flows of the firm in order to make investment decisions, except when such disclosures have tax compliance effects.

We focus here on public disclosure mandates of tax information that have the greatest potential to affect the tax behavior of the firm. This may occur because the information could be used by the tax authority to enforce the tax code, because of the firm's anticipation of real or

[13] These disclosures also include public testimony compelled by Congress by corporations about their tax activities.

perceived reactions by investors or the general public, or both. For instance, as we define tax information broadly to include any information useful in understanding a corporation's tax behavior, the tax authority may take an interest in information disclosed in a firm's financial statements about the geographical distribution of income or tax risk in order to compare it for consistency between these disclosures and any private information contained in a firm's tax return (Dyreng, et al. 2020).

There are also instances of public disclosure regulation that occur outside of the financial statements. For instance, beginning in 2016, UK regulators require firms over a certain size threshold to disclose a tax strategy report that describes broadly, and qualitatively, how firms deal with tax risk either as part of its annual financial statement or as a separate document that is easily found free of charge (Belnap 2021; Xia 2020). Another example is the requirement beginning in 2015 for all banks, again over a certain size threshold, headquartered in the EU to publicly disclose country-by-country reports of income, employees, taxes paid, and other financial information either as part of their financial statements or as a separate document (Dutt, Ludwig, Nicolay, Vay, and Voget 2018). Most recently, tax information has become a component of comprehensive reporting on sustainability issues alongside climate change as well as health and safety (Bourne, Dodsworth, and Kooroshy 2021). These latter disclosures are not yet mandated, but discussions about doing so do not restrict them to financial statements. Generally, any public disclosure requirement taking place outside of financial statements has a broader audience in mind than the firm's current and potential investors.

3.1.2.1. Public Dissemination by the Tax Authority

A special case of mandatory public disclosure may occur whereby a firm's tax information is disseminated publicly by the tax authority rather than the firm itself. A recent example is the requirement beginning in 2016 for the Australian Taxation Office (ATO) to publish taxable income and tax payable for Australia's largest business taxpayers on an annual basis (Hoopes et al. 2018).[14] This particular disclosure regime reveals tax information to the public with two important details. First, when the government disseminated the information, the information was available in a centralized location, increasing its comparability and likelihood of being widely disseminated. Second, this disclosure regime had the goal of seeking to "foster trust in governments and the ATO [tax authority] regarding their administration of tax systems (Chan 2021)."[15] While each firm has its tax information revealed to the public, the disclosure itself did not draw attention to any individual firm (of course, media reporting on the disclosure may well focus on individual firms).

3.2. Voluntary Disclosure

Voluntary disclosures are those disclosures not required by law or regulation. These disclosures may have a number of purposes and, because they are not mandated, take many different forms. In our framework, voluntary disclosures are those made directly by the firm and may be private or public.

3.2.1. Voluntary Private Disclosure

Voluntary private tax disclosure may take many forms—for example, it may involve cooperative compliance programs whereby firms provide more information than required to the tax authority in exchange for certainty, faster dispute resolution, and/or lower compliance costs. This cooperation may occur at the transaction level, as in the context of advance pricing

[14] Another example is the Pakistani government that started publishing a tax directory each year in 2012, revealing income tax paid by every taxpayer in the country (Slemrod, Rehman, and Waseem 2022).

[15] That is, one of the purposes of public disclosure is to increase the faith that the general public has in tax policy and that taxpayers are generally complying with tax obligations. This information may subsequently be combined with other information and opinions to be used to shame companies perceived as being too aggressive in their tax planning. For example, politicians or the media may use these government-mandated reports to call out companies with low tax payments (even if these tax payments represent compliant behavior). This use of these mandated disclosures may well be an intended side-effect of such disclosures (we consider this secondary, non-consensual disclosure of firms' information as "third-party disclosure").

agreements or private letter rulings (Becker, Davies, and Jakobs 2017), or at the firm level, as in the Compliance Assurance Process (CAP) in the US under which the taxpayer and the IRS endeavor to resolve issues prior to the filing of the tax return (we discuss the details of these arrangements later (Beck and Lisowsky 2014; De Simone, Sansing, and Seidman 2013)). Another example of voluntary private disclosure includes opportunities for non-compliant taxpayers to self-disclose non-compliance prior to being discovered in order to avoid criminal prosecution and limit civil penalties, such as in the case of tax amnesties (Shevlin, Thornock, and Williams 2017). Finally, these disclosures include penalty relief or reduction associated with disclosing positions for which the firm does not have substantial authority to support. In all cases, the firm is seeking to minimize the risk of unfavorable tax outcomes.

3.2.2. Voluntary Public Disclosure

Voluntary public disclosure may take many forms. For example, it may be part of a company's environmental, social and governance (ESG) campaign to help convince outside stakeholders that the company is paying its "socially responsible" share of taxes. They may be intended to clarify, and justify, other mandatory disclosures, as was seen in a recent case in Australia (Hoopes et al. 2018; Kays 2021). They may be disclosures by companies that have faced harsh criticism about their taxes trying to repair perceived reputational damage. Voluntary public disclosures regarding taxes are relatively rare but may well be increasingly common as social pressure from activists becomes more powerful and firms feel increasingly obligated to signal to non-shareholder stakeholders. For example, B Lab, an organization that advocates for expanded business involvement in social and environmental causes, currently has an official position statement on tax avoidance posted on its website called "Tax Strategies & Tax Advisory Services" that encourages voluntary disclosure practices for companies seeking B Lab certification.[16] The adversarial nature of firm's relationship with the tax authority may impact the amount and quality of information in the public domain.

3.3. Third-Party Disclosure

The final component of tax disclosure in our framework is third-party disclosure. This entails tax information that is provided by third parties. Third-party disclosures attempt to fulfill a vast array of tax policy objectives (if mandatory) and social objectives (if voluntary). While these disclosures may also be shared publicly or privately, we are not aware of a disclosure mandate for a third party to release tax information to the public apart from the tax authority itself (which we do not categorize as a third-party, described above). Therefore, mandatory third-party disclosures are always private while voluntary third-party disclosures may be public or private.

3.3.1. Third-Party Private Disclosure

The most common third-party private disclosure is information reporting compelled by the tax authority. One famous example of a third-party information report is the Form W-2 required by employers regarding their employees' wages and withholding in the US. Another more business-oriented disclosure is the US Form 1099-K, which requires issuers of electronic payment cards and providers of third-party network transactions (Visa, MasterCard, Paypal, etc.) to report on payments accepted by businesses using their payment methods (Slemrod et al. 2016). Another example is the requirement of beer and wine wholesalers to report beer and wine sales to their retail business customers to the North Carolina Department of Revenue.[17] These types of third-

[16] See https://www.bcorporation.net/en-us/standards/controversial-issues/. Further, the Global Reporting Initiative (GRI) issued a tax specific ESG standard (GRI-207) in 2019, the World Economic Forum outlined "total tax paid" as one of its 21 core reportable ESG metrics, and the United Nations included tax as one of its metrics in achieving its Sustainable Development Goals.

[17] See https://www.ncdor.gov/documents/beer-and-wine-faqs.

party information reports are intended to convey information that is relevant to enforcement of the tax code that a party that is independent of the taxpayer has regarding the taxpayer. In some countries, these third-party reports reduce taxpayers' administrative burdens by resulting in pre-populated tax returns. In other countries, like the US, which do not use pre-populated tax returns, this information is used to check the accuracy of the filed return by the IRS. Another important third-party disclosure mandate is the requirement in some jurisdictions for tax advisors to produce client lists.

3.3.2. Third-Party Public Disclosure

While third-party disclosures are most thought of as mandatory and private, examples exist that could be viewed as third-party information reports, wherein third parties access information related to a company's tax behavior (either legally or illegally) and share that information with other parties (often the public). The many examples of information leaks (Panama Papers, Luxembourg Leaks, Paradise Papers, etc.) regarding corporate taxpayers and high-wealth taxpayers are examples of these types of voluntary, public, third-party information disclosure (Omartian 2017; Huesecken, Overesch, and Tassius 2018; Nesbitt, Outslay, and Persson 2018). The media plays an important role in this form of disclosure because the way in which the information is disseminated will significantly impact who pays attention to the information and what they learn or do not learn from the information.

4. Examples of Studies Examining Mandatory Disclosure

4.1. Mandatory Private Disclosure

A corporate tax return, including any additional schedules or disclosures, is generally characterized as mandatory private disclosure. The primary intent of a corporate tax return is to document the firm's self-assessment of its taxable income and corporate tax liability. The tax return serves as a basis for the tax authority to audit and challenge the tax positions of the firm. Full tax return information is generally limited to private disclosure to tax administrations, often by statute, at the national and subnational level.[18,19,20]

4.1.1. Disclosure of Indicators of Tax Aggressiveness

Tax returns often include supporting schedules or disclosure statements designed to address the information asymmetry between the taxpayer and the government surrounding the calculation of tax liability. These additional requirements often arise through regulation and can be introduced, altered, or removed over time as enforcement needs evolve. The traditional objective is to provide information to the tax authority that enables the tax authority to enforce the tax code, and, in some cases, to provide a deterrent effect to the taxpayer. Some studies examine disclosure requirements that seek to provide the tax administration with early information regarding potentially aggressive or abusive transactions and to identify the promoters and users of such schemes.[21] Early access to information can improve risk assessments, audits, and potential changes to regulations or legislation. Relatively limited empirical evidence from private disclosures exists, given that access to confidential information is required for academics to conduct empirical analyses.

The US tax authority, the IRS, has had a successful working relationship with academics, so many of these supporting schedules and disclosure statements in US tax returns have been

[18] For example, Section 6103 of the Internal Revenue Code in the United States, Section 30 of the *Abgabenordnung* in Germany, and Section 82.32.330 of the Revised Code of the State of Washington all guarantee privacy with regards to privately filed income tax returns. US corporate tax returns were made public briefly in the 1920's and several countries currently disclose information from these returns (e.g., Norway, Sweden, Australia, Pakistan, and Finland).
[19] In some cases, tax confidentiality has been enacted as law but not perfectly maintained. See Toope and Young (1981) for a Canadian example and Donmoyer (2010) for a US example. Recently, there have been many examples of tax returns of very wealthy individuals being illegally leaked in the US, including some that contain information about corporations. Tax returns of only moderately wealthy, but politically salient, individuals have also been leaked, such as those of former US President Donald Trump.
[20] While these tax returns are not disclosed individually, many tax authorities, including the IRS, do disclose aggregated tax return information but not the identity of a taxpayer.
[21] See, for example, the Irish requirement that tax disclosure be made before the transaction is even engaged in, as described in Section 3.4 here: https://www.revenue.ie/en/tax-professionals/documents/notes-for-guidance/mandatory-disclosure/guidance-notes-mandatory-disclosure-regime-2015.pdf.

studied empirically.[22] The introduction of tax shelter reporting rules in 2000 required taxpayers to disclose potentially abusive tax strategies to the Office of Tax Shelter Analysis, called reportable transactions, on Form 8886. Blank (2010) notes that these types of mandatory disclosure rules can result in two kinds of over disclosure: conservative firms will over disclose out of excessive caution, disclosing potential useful information where there is a reasonable chance the tax authority may require information, while aggressive firms over disclose to avoid detection of the most abusive tax planning, releasing so much information it becomes very difficult to determine what information is useful and what is not. Lisowsky (2010) and Lisowsky, Robinson and Schmidt (2013) establish that Form 8886 disclosures are indicators of tax aggressiveness, on average, by establishing their association with other publicly observable indicators of tax aggressiveness.[23]

There have also been mandated disclosures that require the reconciliation of book income and tax income. Beginning in 1964, the IRS required corporations to reconcile their book and tax income as part of their annual federal income tax return via Schedule M-1. For the next 40 years, Schedule M-1 was the only place on the tax form where corporations identified transactions that created differences in book and tax income.[24] Following concerns over perceived tax abuses by corporations and following the recommendations laid out in Mills and Plesko (2004), the IRS

[22] We address disclosures that come from third-party advisors later in our paper under third-party reporting. The policy reason for third-party disclosure of tax strategies is to reduce the supply of tax strategies (in contrast, firm disclosures are intended to reduce demand). Advisors are less likely to market a tax strategy if it will be detected through disclosure, as strategies are costly to devise and profitable when sold widely at no marginal cost.

[23] One important type of transaction that firms were required to disclose on Form 8886 (until it was removed in 2007) were those that created a significant book-tax difference.

[24] Mills and Newberry (2001) examine book-tax differences using tax return data on public and private firms, and find evidence consistent with these differences providing less useful information about tax aggressiveness for private firms. Specifically, Mills and Newberry (2001) find that private firms are more willing to lower book income in order to reduce taxes, relative to public firms. This study highlights that a disclosure regime may be costlier for some firms than others, even when the requirements are the same.

introduced Schedule M-3 in 2004, which provides significantly more useful information for this purpose than did the old Schedule M-1.[25]

Donohoe and McGill (2011) study the ex-ante and ex-post effects on real behavior of firms due to the implementation of the Schedule M-3. Using event study techniques, they find evidence that investors believed ex ante that this substantial increase in book-tax difference disclosure would increase future tax burdens and/or tax compliance costs. Investors also appear to believe that the increased disclosures would be costly for firms having the types of book-tax differences that attract additional IRS scrutiny (e.g., discretionary permanent differences). Their study suggests that investors perceived that the specific disclosures mandated in the M-3 would have a deterrent effect with respect to relatively more aggressive forms of tax avoidance. They also document a short-term deterrent effect of M-3, as investors expected. Henry, Massel, and Towery (2016) examine long-term changes in corporate tax avoidance after the M-3. Their study spans the 10 years after the introduction of the M-3 and defines tax avoidance much more broadly than Donohoe and McGill. Henry et al. (2016) assert that the short-term changes documented in Donohoe and McGill (2011) do not persist over time, suggesting that firms did not ultimately view M-3 disclosures as costly. These views are consistent with a letter written by the AICPA to the IRS, where they suggest that M-3 information is not useful to the IRS.[26] However, the authors raise a new puzzle. They find corporate tax avoidance to be the greatest in the most recent years of the study when firms are subject to three new detailed disclosure requirements (they also study FIN 48 and

[25] For example, it greatly expanded the number of reconciling line items (relative to the M-1) for large companies and required each item be characterized as a permanent or temporary book-tax difference. Rule differences between financial and tax accounting, including differences in what entities can be consolidated for reporting purposes, make these reconciliations difficult to navigate and understand. For instance, Mills and Plesko (2003) report that Australia's reconciliation requires 28 line items and Canada's requires 100 line items.

[26] The AICPA reports of its members, "Taxpayers were told that their examination burden would be reduced through the IRS's use of data gathered by Schedule M-3. Our collective experiences, however, indicate that there has been little change in the examination approach for those taxpayers outside of the Compliance Assurance Program (CAP), with examiners still requesting complete book to tax detail for all general ledger accounts (IRS 2013, 57)."

Schedule UTP, described later). It is not clear why expanded disclosure requirements would prompt an *increase* in corporate tax avoidance, suggesting there may be other forces impacting the proxies for corporate tax avoidance that are difficult to control for.

The next important private disclosure mandate in the US was introduced in 2010 when the IRS introduced Schedule UTP, which requires public corporations to report uncertain tax positions for which they accrued a tax reserve in their financial statements. The stated purpose was to improve the efficiency and effectiveness of IRS audits. Again, researchers initially examined the new disclosure requirement using an event study methodology to investigate market participants' perceptions of the costs and benefits of Schedule UTP (Abernathy, Davenport, and Rapley 2012; Edwards, Koester, and Shevlin 2010). Edwards et al. (2010) find no discernible market reaction associated with the proposal.[27] In contrast, Abernathy et al. (2013) examine three event dates (the initial proposal, revised proposal, and final draft dates) as well as all firms with assets greater than $10 million (Edwards et al. only examined the S&P 500), and find different market reactions around their three event dates, suggesting that the details of how a disclosure regime is designed plays an important role in how costly it will be to firms (either real or perceived costs). Moreover, by including small firms, they find evidence consistent with there being a greater impact on firms that are not already closely monitored by the tax authority in other ways.

A few studies investigate changes in corporate behavior after the implementation of Schedule UTP. Henry et al. (2016) examines whether Schedule UTP is associated with long-term changes in corporate tax avoidance. Consistent with their M-3 finding discussed earlier, they find increased tax avoidance after Schedule UTP, particularly among domestic firms (where the

[27] The market's perception of the limited use of Schedule UTP is in line with the findings of Treasury Inspector General for Tax Administration report, aptly named "The Uncertain Tax Position Statement Does Not Contain Sufficient Information to Be Useful in Compliance Efforts (TIGTA 2018)."

disclosure is less informative). Abernathy et al. (2013), Honaker and Sharma (2017) and Towery (2017) find evidence that firms modify their financial statement disclosures for tax uncertainty in order to avoid disclosing positions on Schedule UTP, while not altering their tax behavior.[28] These studies demonstrate that firms acted to avoid disclosure and highlight an important unintended consequence associated with linking tax return and financial statement disclosures. Another implication is that taxing authorities and investors must take care when interpreting these disclosures, as one disclosure may affect the usefulness of the other disclosure, and vice versa.

Bozanic et al. (2017) also examine the effects of Schedule UTP, and how the mandatory private disclosure interacts with the public disclosure of tax information to the public. Their analysis shows that, following its implementation, firms behaved as if their publicly released tax information was less useful to the IRS, and thus felt less constrained by the proprietary costs of public voluntary tax disclosure. As a result, these companies released more tax-related information to the public via their tax footnotes in their 10-K. Their findings not only suggest a proprietary cost of tax-related public information, but also suggest that public and private tax disclosure interact with each other (a point also emphasized in Lisowsky et al. (2013) and Towery (2017)).

Other countries have also adopted mandatory disclosure rules regarding aggressive tax planning, including Canada, Ireland, Israel, Korea, Mexico, Portugal, South Africa, and the United Kingdom. Beginning in 2004, the UK started implementing requirements for firms to report their tax planning under Disclosure of Tax Avoidance Schemes (DOTAS), which placed reporting requirements both on users of tax avoidance schemes as well as promoters of those schemes. The reporting requirement has since expanded to cover the VAT and other indirect taxes.[29] The

[28] This finding is consistent with cases of public tax disclosure where firms make changes to avoid disclosures (Hasegawa, Hoopes, Ishida, and Slemrod 2013; Hoopes, Robinson, and Slemrod 2018).

[29] In 2010, Ireland announced a similar disclosure regime, mandating disclosure of certain transactions that are deemed to represent aggressive tax planning. Starting in 2015, Mexico mandated disclosure of 36 specific types of transactions

examination of these regimes, especially those that impose disclosure requirements on promoters, would enhance our understanding of these disclosure instruments.

4.1.2. Private Country-by-Country (CbC) Reporting

Along with increases in private disclosure requirements targeting potentially aggressive transactions, the OECD/G20 BEPS Project report proposed improving the quality of transfer-pricing documentation submitted to tax administrations, which is now being implemented as a minimum standard of the BEPS Inclusive Framework (OECD 2013a, 2013b, 2014a, 2014b).[30] OECD Action 13 requires that large MNEs, with total revenue exceeding 750 million euros annually, must privately disclose (i) an overview of its business and overall transfer-pricing strategies, (ii) material intercompany transactions by country, and (iii) a CbC) report that aggregates jurisdiction-wide information about income, taxes paid and other indicators of economic activity (e.g., revenue, employees, tangible assets). The purpose of these disclosure requirements is to provide tax administrators with information necessary to conduct a high-level risk assessment. In the past, it was impossible for each tax authority to reliably observe and assess country-specific data for each firm operating in their jurisdiction.

Joshi (2020) examines private CbC reporting to see if it decreases income shifting and tax avoidance. Using a regression discontinuity design around the reporting threshold of €750 million, Joshi finds a small increase in the amount by which the effective tax rate exceeds the statutory tax

(RSM 2015). Mandatory disclosures have several dimensions that impact their effectiveness and compliance costs. Disclosure may also be required of the promoters of aggressive tax schemes, or the taxpayer using the scheme. The trigger for mandatory disclosure may arise from items such as a confidentiality requirement or a premium fee, or as the result of generating a tax loss. Tracking and linking schemes between promoters and users often requires scheme numbering and disclosure of client lists. The timing of the disclosure, whether upon a marketing contact or contract signing, may improve the early warning element compared to an annual return filing. Finally, both monetary and non-monetary penalties may be used to ensure compliance with the rules (OECD, BEPS Action 12 2015 final report).

[30] Lohse and Riedel (2012) find that multinational profit shifting activities are significantly reduced when countries introduce or tighten transfer price documentation requirements. These results suggest an extremely large (potentially implausibly large) reduction of around 50%, with stricter rules inducing stronger declines in shifting behavior.

rate (between 0.6% and 0.3%, depending on bin width). Joshi also examines the reduction in profit shifting specifically, as this is one of the main channels through which CbC reporting can change tax behavior. She finds no robust evidence of reduced profit shifting, and concludes that CbC reporting did not deter profit shifting but instead reduced other types of tax planning such as tax avoidance within the local tax jurisdiction.[31] Hugger (2019) also finds evidence of an increased effective tax rate, of about 0.8 percentage points.

Private CbC reporting was intended to increase tax compliance and allow taxing authorities to better enforce the tax code by having firms disclose "real" activities so tax authorities could compare these with reported profits. Joshi, Markle and Robinson (2022) examine this misalignment of reported profits and real activity in a sample of affiliates in high-tax jurisdictions prior to CbC reporting. Using a regression discontinuity design around the reporting threshold, they find that both profits and real activity decline in response to CbC reporting both for affiliates that are misaligned and for affiliates that are not misaligned prior to CbC reporting. This suggests that the enhanced disclosure provided by CbC mandates reduces investment in high-tax countries more broadly than to reduce misalignment, and thus reduces tax revenue in high-tax countries. There is additional evidence of unintended consequences of this mandatory private disclosure. For example, De Simone and Olbert (2022), also using a regression discontinuity design around the CbC reporting threshold, examine whether firms changed their real economic behavior (where they invest and have employees) as a result of private CbC reporting, and found evidence of increases in investment associated with CbC, possibly to substantiate profits in low-tax jurisdictions that may come under new scrutiny by the tax authority as a result of CbC reporting.[32]

[31] Joshi does find some evidence that tax-motivated income shifting began to decline in 2018, two years after the new reporting requirement came into effect. However, the data were too sparse at that time to draw a strong conclusion.
[32] Also examining unintended consequences, Huang et al. (2021) find evidence that private CbC reporting improves tax information quality, including the accuracy of analysts' effective tax rate forecasts.

While CbC reports are currently private for most firms (with the exception of EU financial institutions, discussed later), on December 1, 2021 a public country-by-country reporting directive was published by the European Union, which then needed to be passed into national legislation by June 2023.[33] These rules would require both EU-based and non-EU based MNEs doing business in the EU to publicly disclose some CbC data.[34] Further studies should look into effects of these disclosures, their unintended consequences, and how their effects are predicated upon the country of origin of the institution. Further, knowing that these disclosures do not yet exist, researchers should consider what field experiments they might be able to run concurrent with the release of these disclosures to better understand the effects of these disclosures.

4.1.3. Other Private Disclosure Settings

Two papers show that important details of what disclosures are required on the tax return may influence firm behavior and tax filing. Lennox et al. (2015) examines the mandatory private disclosures associated with filing claims for R&D tax deductions. This paper finds that, because Chinese firms must file additional disclosures to the government to claim R&D credits, more tax-aggressive firms are less likely to submit claims for R&D tax deductions compared with non-tax aggressive firms to avoid the additional scrutiny and oversight by the tax authority. Because they are less likely to submit claims for R&D tax deductions, they invest less in R&D. Konda et al. (2020) examines changes to IRS Form 3800 that required carry-forward general business credits to be reported in a more disaggregated manner. They find that, because of this change, tax receipts dropped by an estimated $1.3 billion by virtue of firms reporting 20-25% more carryforward

[33] See https://www.ey.com/en_gl/tax-alerts/eu-public-cbcr-directive-enters-into-force-on-21-december-2021.
[34] However, important differences exist between the information contained in the private report and the public report, and the information, as in the bank setting, may not be easily consumed by the public, because, for example, there will not be a centralized location for the reports. For instance, there is no central database or registry for banks' CbC reports, and the data must be hand-collected from PDF files. Studies that examine the change from private to public disclosure may be able to capture the incremental effect of public scrutiny on tax behavior, beyond the mere deterrent effect of the tax authority having access to new information, depending on the details of the regulation.

credits. The authors find evidence to suggest a compliance channel, whereby firms updated their beliefs about the audit technology of the tax authority based on the need for the additional disclosure, thereby encouraging increased use of general business credits. These papers demonstrate how the specific design of mandatory disclosures can impact the efficacy of a given tax policy. In one case, the disclosure revealed more about the firm than was previously disclosed, while in the other, it gave a wider view into the tax authorities' practices; in both cases, these disclosures had real effects. Future work on the design of tax forms would also prove useful to taxing authorities designing such forms.[35]

4.2. Mandatory Public Disclosure

Although most mandatory disclosure is private, there are some cases of mandatory public disclosures. The most common form of mandatory public disclosures of tax information are those required by securities regulators of publicly traded corporations. The primary objective of these disclosures is to provide investors and creditors, and potential investors and creditors, with information to assess the amount, timing, and uncertainty of the future cash flows of the firm.[36] While these disclosures, especially those in ASC 740, and specifically ASC 740-10, are extremely well studied, we do not review that literature here, as these papers are not focused on the tax behavior of firms. However, there are some mandatory disclosures that are not investor oriented. While instances of these disclosures are not common relative to private mandatory disclosures, they may well be better suited for analysis. The reason for this is straightforward – by definition,

[35] For example, the IRS recently requested comments on ways to enhance the quality, utility, and clarity of information that it collects from individuals that report tax fraud. Individuals can use Form 3949-A or Form 211, but only the latter allows for monetary compensation. The concern is that this process is not clear based on the form design and may reduce the efficacy of the whistleblower program.

[36] Some prominent investors have asserted that knowing more specifically about the tax behavior of firms from financial statements would be useful. For example, Morris Pearl, former managing director at BlackRock Inc., said, "If we are going to protect the integrity of the market, we should start by requiring companies to report exactly how they are doing business, including where they pay taxes and how much (Pearl 2016)."

when information is public, it is observable to researchers. Because public company financial statements have been the main source of publicly disclosed tax information, much of the focus to date has been on financial reporting and capital market effects.

4.2.1. Public Country-by-Country Reporting

While much mandatory public disclosure of tax information happens in financial statements, recently there have been prominent examples outside of financial statements. One example is country-by-country (CbC) reporting, which differs from regular financial reporting in that companies must publish information for every country they operate in rather than providing a single consolidated view of the firm. Note that public CbC reports differ from the private CbC reports discussed earlier, most notably in that they contain substantially less detail and are not disseminated in a uniform manner. For example, private CbC reports are filed and exchanged using a standardized electronic format called the CbC XML Schema, part of the OECD's Action 13. Public reports, as currently envisioned, will not be centrally combined, but rather are only required to be provided by the firm to the public.

The first public CbC reporting requirements stem from Directive 2013/34/EU1 and Directive 2013/50/EU for listed and large non-listed companies active in the oil, gas, mining or logging sectors beginning in 2013. They must report all payments to governments broken down by country, such as production entitlements, taxes, royalties, dividends, and entry fees, and to report any specific project to which the payments relate. These types of firms often operate in low-disclosure, resource-rich nations, and these disclosures were meant to not only increase transparency regarding the taxes the firms remit, but also other information regarding their extraction activities, potentially decreasing corruption (Rauter 2020). The market seemed to anticipate an effect of the EU disclosure requirements. Johannesen and Larsen (2016) examine market reactions to announcements surrounding the possibility of public country-by-country reporting for oil, gas, and mining companies, and find a negative market reaction. This evidence is consistent with the market anticipating tax, or other, costs arising from these public disclosures. To our knowledge, there is no evidence regarding the tax behavior of these extractive firms following the introduction of the disclosure requirements.

In addition to these disclosures in the extractive industry, EU Capital Requirement Regulations in 2013 required banks and other financial institutions in the EU to publish annually country-level information about their sales, number of employees, income and tax payments beginning in 2014. Dutt et al. (2018) examine market reactions around the mandate for public bank CbC reporting and, in contrast to the extractive industry setting, fail to find a market response to this anticipated new disclosure. Why the market perceived costs of public EU CbC reporting for extractive industries but not banks is unclear. The disclosure requirements were not identical; in particular, there were other features of the extractive industry reports that may have triggered these costs. In addition, the baseline level of tax avoidance, or corruption generally (which was also a target of the extractive industry reporting) may have differed between extractors and banks.

Eberhartinger, Speitmann, and Sureth-Sloane (2021) examine banks' behavior following the public disclosure mandate. They find that EU banks decreased their number of subsidiaries in tax havens, and that this reduction was concentrated in the types of tax haven nations that are most likely to be used for tax planning ("dot havens"). While Eberhartinger, Speitmann, and Sureth-Sloane find evidence of changes in subsidiary structures, Joshi, Outslay, and Persson (2020) look at indicators of income shifting activities. They find evidence that public country-by-country reporting decreased income shifting by EU banks, but the effective size of these responses was relatively small. Further, they are unable to detect an effect large enough to measurably change the book effective tax rates of firms.[37]

Increased disclosure surrounding MNEs will certainly expand in the future. Future research should examine the effects of these disclosures, examining not only the overall effect on tax planning and income shifting, but also what actions firms take to avoid disclosure, and whether the information is useful for understanding firm behavior outside of tax planning (e.g., are there non-tax proprietary costs to tax disclosure?). Further, the cross-country nature of some of these disclosures will be useful in examining whether the actual use of the disclosures affects firm behavior—if some countries' taxing authorities more actively use CbC reports or fail to enter into information exchange agreements, does that influence firms' tax planning in those specific countries? Further, while there are many studies on the initial effect of these mandates, it may well be that the deterrent effect will become more apparent after firms have completely impounded the effects of these mandates into their structures and planning, and taxing authorities obtain the ability to start using these data. Studies that examine longer-term consequences will be especially useful.

4.2.2. Public Dissemination of Previously Private Tax Information

While some forms of tax information have been mandated to be disclosed to the public, some jurisdictions have mandated the public dissemination of information that is traditionally only observed by the tax authority.[38] The objective of publishing this information may be to encourage

[37] Thus far, only extractive firms and banks publicly disclose CbC reports. However, plans are currently in place for public CbC reporting of tax information for corporations from the EU generally. While no study has examined the effect of this mandate yet, as it will be implemented in 2023, the market apparently expects it to bring about negative costs for firms. Müller, Spengel, and Weck (2021) examine event dates regarding the proposal for general public CbC disclosure, and find a cumulative average abnormal return of -0.699% across their event dates. These effects are more pronounced for firms with lower effective tax rates, which suggests that the reaction is related to tax information. In contrast, though, Flagmeier and Gawehn (2020) find relatively weak market reaction to the proposal of public CbC reporting, with the most significant effect concentrated in large, international EU firms.

[38] The way in which this is implemented varies across jurisdictions, but we are categorizing these disclosures as public mandatory disclosures, even if it is not the firm that does the disclosing. In some instances, it is the government that

tax compliance, increase community confidence that corporations are remitting the right amount of tax, or simply improve awareness, and may result from public pressure. Several jurisdictions have publicized explicit tax return information that is sometimes used by the media and other parties to shame taxpayers, including corporate taxpayers. Several countries have made tax return information public (Hasegawa et al. 2013; Bø, Slemrod, and Thoresen 2015; Lenter, Slemrod, and Shackelford 2003; Kornhauser 2005; Slemrod, Rehman, and Waseem 2022).

Japan had a system of public disclosure above a certain size threshold for both individual and corporations for some time, but the regime ended in 2004. An examination of public and private firms in Japan found no evidence of increases in tax avoidance after Japan eliminated this regime of mandatory public tax disclosure. However, there is strong evidence that in the period of the mandated disclosure, firms took actions to evade the reporting requirement (Hasegawa et al. 2013). An examination of public tax disclosure in Norway provides some evidence that public disclosure increased tax compliance, increasing reported taxable income by about 3 percent for small businesses (Bø et al. 2015).

The most intensive study of behavioral effects of public disclosure of company tax information from a tax authority is Hoopes, Robinson and Slemrod (2018). In Australia, consumers responded, at least in the short term, by holding a very slightly more negative view towards private companies that are subject to disclosure. In some cases, these negative views appear to be a consequence of media coverage but, interestingly, are not conditional on the firm's actual tax payments disclosed. The more negative view towards private companies may be the result of additional public information about private companies that was already available for public companies. Investor response appeared to be negative leading up to and surrounding the disclosure

disseminates the information but, since the information is originally produced by the firm, we are not categorizing it as a third-party disclosure.

event, suggesting that investors perceived that being subject to disclosure would be costly for firms. None of the costs documented appear to be large.[39] Some firms preempted disclosure by changing reported total income on the tax return so as to fall short of the disclosure threshold, evidence that is consistent with the findings of Hasegawa et al. (2013). This change in behavior was stronger among private firms, implying that these firms were more likely to anticipate that disclosure would be costly and/or that adjustment was easier. The longer-term effects of the disclosure regime in Australia, including the impact on tax compliance and tax policy, will require more time and data to analyze.[40]

Much of the empirical research in tax disclosure thus far has been done in developed economies, where data are more readily accessible. However, more research needs to be done in developing economies, where the largest marginal social benefit from increased disclosure may possibly exist. One such example is Slemrod et al. (2022), which examine disclosure of tax information in an emerging economy, Pakistan, where tax avoidance is a pervasive problem and resources to detect evasion are scarce. The authors exploit two Pakistani programs that began in 2012. In the first, the government began revealing the amount of income tax paid by every taxpayer in the country. In the second, the government publicly recognized and rewarded top taxpayers of the country and granted them certain privileges. By looking at administrative tax return data from 2006 to 2015, they find that both programs elicited a substantial compliance response, particularly by corporate taxpayers, consistent with these taxpayers being in the best position to monetize the goodwill offered by the social recognition.[41]

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[39] There is also evidence that these disclosures prompted investors to gather information, and increased trading volume around these announcements suggests there were differential interpretations of the disclosures (Genest and Wu 2022).

[40] Chen (2016) also examines market reactions to the Australian disclosure of information.

[41] Allen and Uysal (2022) study publicly traded Turkish firms that, since 2009, are mandated to publicly disclose their taxable income. This requirement is operationalized as the firm disclosing its full tax return at the same time it submits the tax return to the government. They find evidence that the information is value relevant to investors and that the disclosure of the tax return improves the information environment for both tax and financial reporting. In this setting,

4.2.3. Other Public Mandatory Disclosures

There is also mandatory tax information shared in public reports summarizing investigations of specific taxpayers or public hearings focused on tax planning of individual companies (Baloria 2016). For example, the US Senate Permanent Subcommittee on Investigations did an in-depth study of some of Caterpillar's tax behavior based on court proceedings, questionnaires and executive interviews, and issued a 99-page report on the behavior of this firm (Levin 2014). While not all the information obtained in the investigation is made public, a large portion is sometimes available. Very little is known about the effects of these disclosures, and future research should examine this information dissemination channel more fully. One such example is Fox et al. (2021), which examines the effects of the European Commission's Competition Committee's State Aid hearings, and find that firms reduced investment following these hearings (although they conclude that these reductions are because of increased policy uncertainty that followed from the hearings).

While mandatory tax disclosure is generally quantitative in measure, a 2016 law in the UK mandated qualitative disclosure of tax information. Firms with a presence in the UK were required to report on their tax strategy in narrative form, outlining the risks and how they deal with HMRC. Xia (2020) examines the effect of the disclosure rule on firms' tax behavior. Xia finds no behavioral tax response to the qualitative disclosure rule. Belnap (2020) also examines this setting, and finds that many US firms legally obliged to make such disclosures failed to do so. Further, in a randomized field study, Belnap (2020) finds that exerting public pressure on these firms does

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firms disclose the tax return earnings prior to the book financial statement earnings. Having two separate reporting dates allows the authors to document that tax earnings contains incremental information about the subsequently released book earnings. Investors find both reports to be useful as both earnings releases are significantly positively related to abnormal returns on their respective announcement dates. Unlike the previous studies discussed above, this is the only regime that requires firms to disclose the information themselves rather than the government doing so. The significance of this setting is that investors obtain both signals from the firm with less delay, which is the case when the government discloses the information. In this setting, the entire tax return is disclosed rather than a few data points.

elicit more disclosures from them.[42] Bilicka et al. (2022) find that these tax strategy disclosures spill over into more tax disclosure in annual reports.

There are many other disclosures mandated for public release that can contain tax-related information that have gone relatively unstudied. For example, firms often engage with politicians to try to shape tax legislature and are obligated to disclose information related to this tax lobbying. There is a large literature that uses these disclosures to examine the effects of lobbying both generally, and lobbying about tax policy specifically (Barrick and Brown 2018; Lambert 2018; Blau, Brough, and Thomas 2013; Hill, Kelly, Lockhart, and Van Ness 2013; Chen, Dyreng, and Li 2018; Olson, Barrick, Tayler, Rajgopal, and Bai 2020; Mason, Utke, and Williams 2019; Tang 2020). However, we know of no paper that examines the effects of the disclosures themselves, i.e. what would change in a world where lobbying remained constant, but firms were not obligated to disclose it, or where disclosure were enhanced (e.g., included in public SEC filings).[43] Such research could inform policy surrounding tax lobbying.

5. Examples of Studies Examining Voluntary Disclosure

In this section, we discuss voluntary disclosures, both because they are important in their own right, and because they may serve as a precursor, or a successor, to mandatory disclosures.[44] For example, if some firms are voluntarily disclosing information that the tax authority or the markets find useful, that may influence policymakers and securities regulators' views on whether

[42] This finding is similar to Dyreng et al. (2016), which finds that public pressure exerted on companies also changed their disclosure behavior, but finds that firms also changed their tax behavior in response to the public pressure.

[43] The SEC also publicly discloses comment letters, many of which deal with firm-specific tax issues. Kubick, Lynch, Mayberry and Omer (2016) find that firms receiving a tax-related SEC comment letter, relative to firms that do not, subsequently decrease their tax avoidance behavior consistent with an increase in expected costs. They also find that firms not receiving a letter, but operating in an industry that receives multiples letters, increase their reported GAAP ETR, suggesting an indirect effect of regulatory scrutiny.

[44] While mandatory tax disclosure, both public and private, is ubiquitous, there are far fewer examples of voluntary disclosure by corporate taxpayers. Further, what limited disclosures that exist have not been studied, likely because mandatory disclosures impose uniformity in the disclosure and thus facilitate systematic analysis.

similar information should be made mandatory or standardized across taxpayers. The decision whether to expand mandatory disclosure may, for example, be shaped by the belief that voluntary disclosures signal that the information is readily available at a low cost to firms. On the other hand, if mandatory disclosures are confusing or incomplete, firms may use voluntary disclosure to pre-empt or assuage negative stakeholder reactions and provide additional context in which to interpret the mandatory disclosure (if, of course, the firm believes there is a net benefit to doing so).

5.1. Voluntary Private Disclosure

Firms sometimes voluntarily disclose information to the tax authority. These disclosures serve several not mutually exclusive purposes (e.g., to reduce uncertainty, to improve the relationship, or to avoid penalties). In most cases, voluntary disclosures complement mandatory disclosures. A US example is the Form 8275-R Regulation Disclosure Statement. This method of voluntary disclosure allows a taxpayer to disclose certain items or positions that are contrary to Treasury Regulations and that are not adequately disclosed elsewhere on the tax return, in order to avoid certain penalties.[45] Another example of voluntary private disclosure is the Compliance Assurance Process (CAP) in the United States. This program is voluntary and represents a partnership between the firm and the IRS wherein the firm is audited in real time, regularly disclosing the tax consequences of major transactions as they occur, and benefits by achieving quicker resolution of tax issues. Beck and Lisowsky (2014) study why firms voluntarily agree to subject themselves to this real-time IRS audit scrutiny and increased disclosure.[46] They find that

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[45] The form is filed, in part, to avoid an accuracy-related penalty due to disregard of rules or to a substantial understatement of income tax for non-tax-shelter items if the return position has a reasonable basis. In essence, the disclosing taxpayer is noting uncertainty in exchange for penalty reduction if the position is challenged and overturned. In an environment where tax regulations are ambiguous, it makes sense that a taxpayer is in a better position to identify this uncertainty than the tax authority. Form 8275, Disclosure Statement is for similar positions.

[46] Beck, Davis, and Jung (2000) and De Simone, Sansing, and Seidman (2013) use analytical methodologies to examine taxpayer reporting behavior in settings similar to CAP. Both studies find that taxpayers' willingness to make voluntary disclosures of tax uncertainty to the tax authority depends on the assumed effectiveness of the tax authority in detecting uncertain tax positions.

firms with moderate-sized FIN 48 tax reserves are more likely to participate in CAP than firms with either small or large reserves, indicating an inverted U-shaped relation between CAP participation rates and firms' tax reserve amounts. This suggests that aggressive taxpayers (as indicated by very large reserves) do not enter CAP, believing that additional disclosure will be a net cost. Moreover, firms with little to no uncertainty do not view CAP participation as net beneficial as there are very few items that may require resolution. As a result, firms with some uncertainty but that are not tax-aggressive (as indicated by medium-sized reserves) do enter CAP because they are more willing to make voluntary disclosures to resolve their positions.[47] Overall, this study highlights that the most aggressive firms expect a net cost to voluntary disclosure while the most uncertain firms expect a net benefit.

As these more collaborative programs seem to hold promise, more work in this area seems warranted in both the US and with similar foreign tax auditing regimes. What should the disclosure requirements to collaborate with the tax authority be, and what effect will these requirements have on uptake?[48] Future research that examines which firms find such programs beneficial, as well as the long-term benefits of these arrangements, would help us understand alternative ways to improve tax compliance aside from simply increasing enforcement. Future work could also examine pilot programs before being introduced into law as Eberhartinger and Zieser (2021) did

[47] The expectation that CAP participation is positively associated with tax uncertainty, but negatively associated with tax aggressiveness, is characterized in theoretical work by Beck, Davis, and Jung (2000) and De Simone, Sansing, and Seidman (2013). Uncertain firms are those that are genuinely trying to comply but are uncertain about a tax position, whereas an aggressive firm is one that is also uncertain about a tax position but hoping to avoid detection rather than resolve the uncertainty. In fact, firms that are expected to be natural candidates for CAP, but that do not participate, can also signal to the IRS the nature of tax compliance in these firms.

[48] For example, CAP eligibility for 2020 was limited to US publicly traded taxpayers that are required to prepare financial statements in accordance with US. GAAP. However, existing CAP taxpayers who are privately held or foreign-owned were given the opportunity to remain in the program if they made the commitment to provide financial statements prepared in accordance with US GAAP for the entity in CAP. According to the IRS website, several existing CAP taxpayers made this commitment and remain a part of the CAP program, while others did not do so and are no longer eligible to be in the CAP program.

in Austria using survey data, or researchers could acquire confidential data regarding participants in actual programs as in Beck and Lisowsky (2013).

A final example of voluntary disclosure that taxpayers make to taxing authorities are those made pursuant to an amnesty program. Shevlin, Thornock and Williams (2017) examine firms' responsiveness to 99 different US state amnesty programs from 1980 through 2011. This study suggests that programs encouraging voluntary disclosure of past tax debts may spawn increased tax avoidance, as firms anticipate future amnesty programs that make current tax compliance less important (because the future expected cost of tax enforcement is decreased).[49]

5.2. Voluntary Public Disclosure

5.2.1. Voluntary Public Disclosure in Financial Statements

Prior research shows that changes in private disclosure standards likely influence firms' decisions to disclose tax information publicly. Specifically, additional disclosure to taxing authorities decreases the private cost of publicly disclosing the same information to investors (as the tax authority already has access to it) and, in turn, induces firms to increase their voluntary tax disclosure to investors (Bozanic et al. 2017). Consistent with this logic, Hope et al. (2013) find that the introduction of the M-3, which enhanced the taxing authorities' private information set, reduced strategic non-disclosure of geographic segment reporting in financial statements.

5.2.2. Voluntary Public Disclosure outside Financial Statements

In addition to voluntary public disclosure in regulatory filings of public companies, there are several voluntary disclosures occurring outside the purview of public company reporting. These disclosures are generally not subject to external audit, statement or opinion. A concrete example is the practice of publishing a "Tax Code of Conduct", or similarly-named document,

[49] Langenmayr (2017) examines voluntary disclosure of individual taxpayers and also finds that they increase evasion.

which highlights how the tax department addresses risk, what behavior they believe is appropriate, and the nature of their relationship with the tax authority.[50] While we are not aware of any studies that examine *voluntary* disclosure surrounding governance and control mechanisms in the context of firms' tax behavior, there are some recent studies that link the nature of corporate boards to corporate tax avoidance (for example, Li, Maydew, Willis, and Xu 2021). While there are many examples of these disclosures, there is little evidence on the effects of voluntary tax disclosure. One exception is Genest (2022), who studies three different voluntary tax disclosures made by firms to increase transparency, and who finds that such disclosures do not necessarily signal a credible commitment to tax transparency. More evidence on the connection between corporate tax practices, corporate governance, and the use of voluntary tax disclosures would clarify how these types of voluntary disclosures could be useful to firm stakeholders, including tax authorities.

Another example of voluntary public disclosure is the Australian "Tax Transparency Code" (TCC). This is a set of principles and minimum standards developed by the Australian Board of Taxation to guide medium and large businesses on public disclosure of tax information. Adoption of the TCC is voluntary but is meant to complement Australia's recently introduced mandatory public disclosure (by the taxing authority) of select tax return data items for the corporate sector (described above and examined in Hoopes et al. 2018).[51] Kays (2021) examines the firms that

[50]Vodafone, for example, issued a 14-page "Tax Risk Management Strategy" document that discusses their positions on how it deals with tax risk (this was prior to the disclosure becoming mandatory in the UK in 2016, discussed earlier). See https://web.archive.org/web/20140708075628/https://www.vodafone.com/content/dam/sustainability/pdfs/vodafone_tax_risk_management_strategy.pdf.

[51] As of March 2022, there are 196 companies that have adopted the voluntary TCC. One wonders how voluntary such disclosures are when implemented by a government, and one's peers start to universally participate. The voluntary TCC report would include: a reconciliation of accounting income to tax expense and to income tax paid or income tax payable, identification of material temporary and non-temporary differences between book income and taxable income, and accounting effective company tax rates for Australian and global operations. Further, for large companies these reports would include their approach to tax strategy and governance, a tax contribution summary for corporate taxes paid, and information about related-party transactions. The individual companies are responsible for providing Internet links to the location of their TCC reports, while the Australian government takes responsibility for publishing all of the links to these reports in a centralized location on its website, and for updating the list monthly.

voluntarily participated in this program, and finds that firms with large expected reputational costs of tax planning and low proprietary costs of disclosing additional information were more likely to participate. Another example of voluntary public disclosure includes quantitative overviews of tax remittances along various dimensions: by jurisdiction remitted, by type of tax, or both. All these examples are forms of voluntary disclosure that go well beyond what is legally required.[52] [53] For example, Rio Tinto, provide detailed information on tax remittances both by type of tax and by jurisdiction in a "Taxes Paid Report" published annually.[54]

Many companies have recently been tying their tax disclosures to their ESG reporting. For example, while Rio Tinto has been voluntarily making comprehensive disclosures around their tax payments since publishing their first "Taxes Paid Report" in 2010, they recently demonstrated their commitment to transparency by reporting in full the requirements of the "Tax" standard (GRI 207) of the Global Sustainability Standards Board of the Global Reporting Initiative. The new GRI standard provides a framework for tax disclosure in a variety of areas and is the first global reporting standard to combine disclosures on management's approach to tax strategy with public country-by-country reporting of business activities, revenues, profit and tax. This new reporting standard should provide a fertile field for tax scholars to examine public voluntary tax disclosure choices and their consequences. It would also be useful to learn how firms' stakeholders use the information for investment or enforcement decisions, if at all.

[52] For example, Shell discloses a tax contribution report showing an overview of global tax remittances by type and other payments to governments. See https://reports.shell.com/tax-contribution-report/2020/introduction/payments-overview.html. PwC developed the total tax contribution framework in 2005 to help companies communicate their contribution to tax revenues in a straightforward way, in https://www.pwc.com/gx/en/tax/pdf/the-total-tax-contribution-framework.pdf. As a result, the World Bank began publishing a total tax and contribution rate (% of profit) for each country as part of its Doing Business project, discontinued in 2021. See https://www.pwc.com/gx/en/tax/pdf/the-total-tax-contribution-framework.pdf.

[53] Shell provides this information but in a separate report on its website related to country-by-country reporting. See https://reports.shell.com/tax-contribution-report/2020/our-tax-data/our-tax-data-by-country-and-location.html.

[54] See https://www.riotinto.com/-/media/Content/Documents/Invest/Reports/Taxes-paid-reports/RT-Taxes-paid-2021.pdf?rev=25a024e671464d65818eaf711b2127f4.

5.2.3 Defensive Voluntary Disclosure and Political Speech

Firms may make voluntary tax disclosures in light of other disclosures or allegations (often by a third party, such as the media, covered below) that firms are engaging in aggressive tax planning.[55] For example, after a high-profile story in the *New York Times* about FedEx Corporation, (Tankersley, Eavis, and Casselman 2019), FedEx responded by providing additional information, called the story "distorted and factually incorrect", and included the following challenge made by the CEO of FedEx: "I hereby challenge A.G. Sulzberger, publisher of the *New York Times* and the business section editor to a public debate in Washington, DC with me and the FedEx corporate vice president of tax (FedEx 2019)." Unwilling to engage in such an event, the *New York Times* responded by asserting that "FedEx's invitation is clearly a stunt and an effort to distract from the findings of our story" (Reuters Staff 2019). When the journalist David Cay Johnston wrote a piece about the tax strategies of SC Johnson (Johnson 2011), SC Johnson responded with disclosures that challenged it (SC Johnson 2011). Responding was apparently so important to SC Johnson that it created a Twitter account just to facilitate the voluntary disclosure (Czerniec 2011).

There are many other examples of firms defending themselves with voluntary disclosures after media stories accuse them of abusive tax avoidance. Chen et al. (2019) examine firm responses to negative media coverage about taxes. Using a comprehensive sample of negative media coverage events, Chen et al. find no change in tax behavior, such as changes in effective tax rates, by firms to the negative media coverage. To our knowledge, there is no study of the effects

[55] A 2014 report by EY notes that "Companies in our survey said they have little appetite for engaging the media directly. Among the largest companies, 65% say engaging with the press is a no-win proposition, and only 13% disagree. Some companies turned this notion on its head and voluntarily published information on their economic and social contributions (Ernst & Young 2014)." Thus, while some firms are unwilling to make these voluntary disclosures, a minority engage.

of these defensive public disclosures responding to media coverage. Such a study could help guide firms regarding the wisdom of responding to such tax attacks, or, simply staying silent. A related form of voluntary public disclosure studied in Hanlon, Hoopes, and Slemrod (2019) is corporate disclosure used as a political tool. In this study, the authors examine disclosures following a partisan tax cut, and find that firms that make more PAC contributions to Republicans, who unilaterally passed the bill, have a greater likelihood of announcing worker-related benefits that they presumably believed made the bill look better.

6. Third-Party Disclosure

We have previously discussed voluntary and mandatory disclosure, in both public and private contexts, where the disclosure of firm-specific tax information emanates from firms. Another recent trend is the prominence of third-party information reporting, where a third party, independent of the taxpayer, releases information related to evaluating the taxpayer's tax liability.[56]

Third-party disclosure comes in many forms. In the US there are dozens of mandated third-party reports that involve information regarding individual taxpayers and small businesses, although many are actually disseminated by larger taxpayers.[57] For example, employers file Form W-2 information with the IRS detailing payments of wages and salaries of employees, businesses file 1099-MISC (now 1099-NEC) reporting on payments to independent contractors, and the sale

[56] One key element to third-party reporting is the assumption that the third-party is independent of the taxpayer, and therefore will provide a truthful report. In some settings, this assumption is not true. Bjørneby, Alstadsæter and Telle (2021) examine using Norwegian data the case in which the third-party reporter, in this case, a firm, is not independent of the taxpayer. They find that minor on-site audits can increase compliance of wage income by inducing independence.

[57] While we report on research done on third-party information reporting where the taxpayer is a corporation, another strand of literature, which we do not review, examines corporations as the information disseminator about individual taxpayers (Bjørneby, Alstadsæter and Telle 2021; Kleven et al. 2016; Bagchi and Dušek 2021) and, examines third-party disclosures regarding individual taxpayers more generally (Gillitzer and Skov 2018; Kamdar 1995; Clifford and Mavrokonstantis 2021; Kleven, Knudsen, Kreiner, Pedersen, and Saez 2011; Phillips 2014).

of stock (Form 1099-B). Third-party advisers and promoters of tax planning strategies must report their activities, and in some cases their client lists to taxing authorities. In other cases, third-party reporting may entail two taxing authorities exchanging taxpayer-specific information out of mutual interest. Third parties also include whistleblowers, leakers and the media, each of whom have different means of disclosing taxpayer-specific information, but whose general objective is dissemination of tax information either to the tax authority or the general public.

6.1. Third-Party Private Disclosure

6.1.1. Commercial Party to a Transaction

One mandatory third-party information report in the US is Form 1099-K, which is mandatory reporting of credit-card sales (and other electronic payment methods) received by their cardholders. While most 1099 forms are not required to be filed regarding the activity of corporate taxpayers, the 1099-K is. Thus, for example, as a payment card provider, Visa will report to the IRS how much in sales Walmart (likely a US taxpayer that accepts Visa cards) makes to its customers using Visa cards. Slemrod et al. (2016) examine the effect of Form 1099-K third-party reporting, and find that the firms most likely to respond to the disclosure (those where most of their payments are received via payment card), sharply increased their reported sales as a result of 1099-K. Unfortunately for tax collections, they also find a concomitant increase in reported expenses, such that the initial result of the 1099-K, likely due to the deterrent effect, was no increase in tax collections.[58] Because the intended effect of third-party reporting regimes such as these is to improve tax compliance, more evidence on the effectiveness of these regimes would be

[58] In a different setting, but also examining the 1099-K, Adhikari, Alm, and Harris (2021) find an increase in reported receipts due to the 1099-K, but do not find an increase in reported expenses, suggesting that firms' planning responses around the 1099-K may vary by industry, and, over time. This evidence is especially important now, as US law recently subjected many more taxpayers to 1099-K reporting (Kess, Grimaldi, and Bubié 2021).

very valuable. Working with tax authorities as they implement these regimes in ways that make them particularly amenable to study would also enhance our understanding of these regimes.

6.1.2. Tax Advisors and Promoters

In many countries, third-party advisers and promoters of tax planning strategies must report their activities, and in some cases their client lists, to taxing authorities (Brown et al. 2019). These disclosures may be structured as voluntary (in exchange for penalty reduction) or mandatory. This type of disclosure has the objective of allowing the tax authority to assess the broader market for tax planning and to (hopefully) get ahead of potential tax planning strategies or loopholes that they cannot anticipate in advance. Edwards, Hutchens and Persson (2021) exploit the requirement for third-party advisors to report on a broad set of cross-border tax arrangements under EU Directive 2018/922 (commonly known as DAC6) to investigate the impact of external (to the firm) reporting requirements on tax behavior. Using a difference-in-differences research design, they provide evidence that robust transparency requirements, with third-party reporting and information exchange across jurisdictions, can help constrain tax avoidance through income shifting behavior.[59] Edwards et al. (2021) also examine whether affected firms respond by modifying their use of an intermediary for tax planning services, and document that they are less likely to engage their auditor to provide tax-related services following DAC6. More research on the effectiveness of imposing disclosure requirements on intermediaries, as opposed to firms, would be useful.

6.1.3. Taxing Authorities Exchanging Information

[59] They further find that the decline in income shifting activities is concentrated among affiliates in countries with higher penalties for misreporting and in countries where legal professional privilege does not extend to non-lawyer tax advisors. Casi et al. (2021) document substantial heterogeneity across countries in DAC6 reported as implemented across EU member states. Edwards et al. (2021) incorporate some aspects of this heterogeneity into their research design.

With increasing globalization and capital mobility, information about taxpayers' activities outside their home country is increasingly necessary to enforce compliance with national laws. Governments are not compelled to exchange information with each other but may agree to do so out of mutual interest (and there are certainly examples where it becomes very costly not to share information, as with FATCA). A key message arising from international initiatives to combat abusive cross-border tax avoidance is the need to strengthen cooperation and enhance the disclosure of information between taxpayers and the various tax administrations that are stakeholders in a cross-border business operation. There has been a surge in Tax Information Exchange Agreements since 2009, as more countries seek information about their citizens' financial accounts and transactions in other countries. This surge was motivated, in part, by the renewed focus on exchange of information following the 2009 G20 Summit and the work of the Global Forum on Transparency and Information Exchange.

Since the mid-1990s, countries with tax systems that facilitate international tax avoidance and evasion have been facing growing political pressure to comply with the internationally agreed-upon standards of exchange of tax information. Using data of German investments in tax havens, Braun and Weichenrieder (2015) find evidence that the conclusion of a bilateral tax information exchange agreement (TIEA) is associated with fewer operations in tax havens and a decrease of almost half in the number of German affiliates. This suggests that firms invest in tax havens not only for their low tax rates but also for the secrecy they offer.[60]

The secrecy afforded by tax havens facilitates not only tax avoidance and evasion but may also facilitate the expropriation of corporate resources by managers. As a result, it may be that

[60] Heckemeyer and Hemmerich (2018) exploit IMF data on bilateral investments in OECD securities markets and show that outbound portfolio investment from tax haven countries is significantly more responsive to information exchange than outbound FPI from non-havens. This provides evidence for a tax evasion component in cross-border portfolio investment in addition to direct investment examined in Braun and Weichenrieder (2015).

efforts to limit tax haven usage by firms may also have positive benefits for shareholders. Bennedsen and Zeume (2017) conclude that increased transparency of haven activities resulting from the passage of TIEAs increases the market value of affected firms by reducing non-tax expropriation opportunities by managers. They find some firms respond to TIEAs by haven hopping, i.e., moving subsidiaries from affected to unaffected havens. One-third of the firms in their study strategically move subsidiaries from tax havens that entered TIEAs to tax havens that did not. This paper highlights non-tax benefits that may accompany mandatory tax disclosure.

Both the Automatic Exchange of Information of financial accounts and the BEPS transfer-pricing documentation including Country-by-Country reports between government taxing authorities through a Common Reporting System will increase private disclosure.[61] In fact, the effectiveness of CbC reporting relies on information exchange. In addition, as another minimum standard in the BEPS Inclusive Framework, governments will have to share their MNE tax rulings with other governments to reduce harmful tax practices (Neubig and Slemrod 2017).

Governments can also force, indirectly, other governments to provide information related to tax enforcement. For instance, when the US adopted the Foreign Account Tax Compliance Act (FATCA) in 2010, this act incented foreign banks to send information about assets and identities held in those banks to the US Treasury Department.[62] While these disclosure requirements have affected mostly individual taxpayers (Johannesen, Langetieg, Reck, Risch, and Slemrod 2020; De Simone, Lester, and Markle 2020; Belnap, Thornock, and Williams 2019), they do have

[61] The Common Reporting System (CRS) is a standard for tax information sharing across governments. While agreeing to share information is essential, having a common format and framework for the information is essential for its use.
[62] Specifically, FATCA requires foreign banks to give information to the US government, and, if they decline, the foreign bank will face a withholding tax. Upon announcement of the law, some foreign banks raised concerns regarding violating domestic banking secrecy laws. As a result of these concerns, the U.S. started bilateral inter-governmental agreements (IGAs) with more than 100 countries that set the rules for FATCA compliance in that country and enable reporting without violating local law, engendering increased (but not universal) compliance with the FATCA disclosure requirements.

implications for corporate taxpayers.

There is also the possibility that taxing authorities even within the same jurisdiction exchange information with each other to improve tax administration. Robinson and Slemrod (2012) highlight the myriad of ways in which tax administration differs across countries other than tax rates using surveys of 47 countries' tax systems (OECD 2006; OECD 2008). Using this OECD report, Blouin, Robinson and Seidman (2016) categorize each country according to the dimension of enforcement coordination between the income tax authority and the customs authority. They find that US MNEs with a greater percentage of affiliates facing governmental coordination between customs and income taxing authorities report greater overall tax burdens. The implication of these results is that information disclosure occurring between authorities within the same national government can increase tax compliance.[63] Other than this single study, we do not know how the exchange of information within a national jurisdiction impacts taxpayer behavior. For instance, how extensively do state and federal tax auditors exchange information with each other, and what impact does this have on tax compliance by firms?

6.1.4. Whistleblowers

Voluntary private third-party tax disclosure also exists in the form of whistleblowing programs wherein those with information on potential corporate tax misbehavior can provide such information to the tax authority, often with promised compensation and certain legal protections.[64] Cockfield (2016) notes that payments under the US whistleblower program have been steadily

[63] Note that the authors are not able to measure information exchange directly, but instead rely on a proxy from an OECD survey on tax administration that captures whether a country has formally aligned its income tax and customs administrators under a single management structure and/or conducts integrated audits across tax types for a single taxpayer as opposed to separate audits by tax type.

[64] Some of whistleblower regimes are aided by mandatory public disclosure of tax information. For example, a tax disclosure regime in Japan once subjected small businesses to tax disclosure. One intent was that people could see the public information about the income of a small business owner, compare that income to the observed lifestyle, and report a discrepancy (Hasegawa et al. 2013). Similar programs exist elsewhere (Bø, Slemrod, and Thoresen 2015).

increasing. Canada started its Stop International Tax Evasion Program in 2014, which provides financial incentives to persons that provide information that "leads to the assessment and collection of additional taxes arising from major international tax non-compliance."[65] The IRS Tax Relief and Health Care Act of 2006 enacted legislation to formally create the IRS whistleblower program providing awards for additions to corporate tax liabilities exceeding $2 million.[66] One consideration with whistleblower programs is that, because the information is disclosed voluntarily by a third party, some consideration must be given as to whether the information is sufficiently specific and credible enough to be used for tax enforcement. For instance, in 2016, the IRS rejected 12,395 claims from whistleblowers (Internal Revenue Service 2017).

Wilde (2017) examines the effects of whistleblower programs in the US context on both firms' financial misreporting and their tax aggressiveness. This paper finds a decrease in tax planning for firms subject to these whistleblowing reports. Other whistleblower programs may target potential whistleblowers who have information regarding the firm because they are customers of the firm. Naritomi (2019) examines a setting in Brazil where retail consumers of firms were given a formal avenue through which to disclose non-compliance information to the tax authority. Naritomi (2019) finds that this program increased reported sales by at least 21 percent in response to this program of formal voluntary third-party disclosures to the tax authority by consumers. As governments are showing an increased interest in whistleblowing programs, and as such programs might be one tool to enforce the tax code considering resource constraints, more should be done to study the effects of whistleblowing programs.

[65] For more details on the program, see the CRA's website: https://web.archive.org/web/20130513203115/http://www.cra-arc.gc.ca/gncy/bdgt/2013/txvsn1-eng.html

[66] The SEC whistleblower program, implemented under Section 922 of the Dodd-Frank Act, rewards individuals who aid the SEC in obtaining monetary sanctions exceeding $1 million. To the extent that SEC sanctions are related to the disclosure of tax-related information, these cases can indirectly impact tax enforcement.

6.2. Third-Party Public Disclosure

6.2.1. Mandatory Public Third-Party Disclosures Meant to Shame

There are many examples of mandatory public tax disclosures made by a government agency that generally seek to improve compliance, reduce enforcement costs, or communicate with the public the results of an investigation or dispute. In some cases, this information is intended to shame the taxpayer into improved compliance. Perez-Truglia and Troiano (2018) show how optimal tax policy may include both financial penalties and intentional "tax shaming" – i.e., publishing the names of tax delinquents online. Public shaming is already used throughout the world to collect taxes. The authors provide several examples: India hires drummers as tax collectors to visit the homes of tax evaders and to bang the drum if they don't pay; the UK publishes details of deliberate tax defaulters; Argentina has adopted local shaming lists. Tax shaming is also used to a limited extent in the United States. Two dozen states publish online lists on state websites revealing the identities of tax delinquents. Perez-Truglia and Troiano (2018) use these disclosed lists in order to conduct a field experiment, contacting 34,334 individual taxpayers in order to test the efficacy of tax shaming. These authors found that by increasing the dissemination of delinquency status increased compliance with taxpayers with small debts. They find, however, no effect on larger debts, which suggests that such programs may not be as effective on corporations, who may generally owe more money.[67] Angaretis et al. (2021) examine California's "Top 500" program to evaluate whether notices warning of the imminent publication of a taxpayer's personal information and potential license suspension affect tax compliance. At least in this population of high-income individuals with tax debts, the program generated a strong positive compliance

[67] It is possible that disclosure meant to shame are not as effective for corporations because investors may be more attracted to own shares in "optimally" aggressive corporations. Public shaming may simply make it easier to know which companies are getting away with taking aggressive tax positions.

response in the form of reduced delinquencies.

Designing shaming programs along with states, such that shame business could be randomly assigned (as Perez-Truglia and Troiano (2018) do) would make these studies especially useful in order to best identify the causal effects of shame. However, as consumer-oriented corporations may also be more sensitive to perceived reputational concerns among customers, studying tax shaming among businesses would add to our knowledge of different instruments that might be useful in increasing tax compliance. However, while little is known about tax shaming of corporations generally, consumers seem to be rather insensitive to negative tax information about corporations (Asay et al. 2023). And, indeed, some hyper-rational and aware consumers may prefer tax avoiding corporations, anticipating that some of the tax savings from tax avoidance may be passed on to them through lower prices (Dyreng et al. 2020). Further, some investors may prefer holding shares of tax avoiding firms, aware that the tax savings may accrue to them in terms of higher share prices.

6.2.2. Third-Party Data Leaks

While most of what we think of as third-party information reporting is private mandatory reporting, there are many examples of voluntarily and publicly disclosed information produced by a third party. Much of this has to do with third parties obtaining, either legally or illegally, information on the tax behavior of firms, and publicly disclosing this information and commenting on it. Public leaks of illegally obtained corporate tax information have occurred in many instances, perhaps most notably with “Lux Leaks” and the “Panama Papers” and are characterized in our framework as voluntary third-party reporting. Leaks of non-corporate tax information have been even more common. In 2015, an employee of a Big 4 accounting firm released the private tax rulings of the Luxembourg government related to over 400 MNEs. These rulings showed the legal, but uncomfortable-when-made-public, tax practices involving firms engaged in base erosion and profit shifting (Nesbitt et al. 2018). In 2016, someone with access to millions of records of a Panamanian law firm, Mossack Fonseca, released details of how individuals and corporations have used shell companies and tax havens to avoid or evade taxes (as well as launder money, hide assets from spouses, etc.) (O'Donovan, Wagner, and Zeume 2019).

Of course, the extent to which leaks result in tax information being public depends on the media, because leaks are often made directly to media outlets, which then decide what and how to report. For instance, the leak of an 85-page expert report on Caterpillar's tax practices to the *New York Times* resulted in a relatively high-level media article that did not contain much of the private information contained in the report. Alternatively, the reporters given access to the Panama data previously mentioned spent many months analyzing the leaked data before any of it was disclosed publicly, and much was eventually disclosed publicly. Nevertheless, the possibility that an otherwise private tax return, ruling, or tax planning strategy could become public through leaks is an additional cost companies will be weighing in their decisions.

O'Donovan, Wagner and Zeume (2019) found that the data leak involved in the Panama Papers erased 0.6 percent of the market value of 488 firms with direct exposure to the revelations of the Panama Papers, resulting in $174 billion in market cap loss. Schmal, Sasse and Watrin (2021) examine the disclosure behavior of firms after several high-profile tax leaks, and find that tax footnotes are less readable after these firms are subject to these leaks. Further, firms report higher tax expense after the leak, suggesting that these leaks may prompt firms to both obscure tax information, as well as change their behavior to be less aggressive.[68]

[68] Another leak occurred in Liechtenstein from LGT Bank in 2008, when a computer technician extracted and distributed customer information to taxing authorities in several countries. The affair attracted global attention and was prominently covered by media such as *The New York Times, Le Monde, Die Welt* and *El Pais* in the following days. After this media attention, other leaks from banks in tax havens followed, for example, Swiss Leaks, Lux Leaks,

Nesbitt, Outslay and Persson (2018) investigate investors' reaction to revelation of a firm's specific tax avoidance strategies and the firm's efforts to reduce the associated tax risks through advance rulings by the government. They find, on average, that investors reacted positively to news of firms' inclusion in the tax leaks. This contrasts with the negative reaction to news of other tax shelter participation and the negative media and political reaction to the Luxembourg tax leaks. They attribute the difference in market reaction to information on firms' preemptive steps to reduce the risk associated with their tax strategies by securing advance tax rulings. The market reaction is more positive for firms perceived to be less tax aggressive. They do not find empirical evidence of political or reputational costs explaining the variation in market reaction.

7. Ideas for Future Research

While our review has already alluded to areas that merit further investigation, in this section, we offer some unifying ideas for future research. Much of what restricts academic researchers from studying private mandatory tax disclosure is access to the disclosures themselves.[69] A few taxing authorities have provided such access, perhaps most notably the taxing authorities in China, the UK and the US. However, worth noting is that governments are more likely to share information with researchers when the data are most likely to portray tax administrations and the outcomes of select disclosure mandates in a favorable light. As a result, caution must be given when interrupting evidence generated from such programs. However, given the variety of tax disclosures around the world, more work done with taxing authorities would help our understanding of the possible effects of more disclosure mandates. It would be especially

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Panama Papers, etc. Johannesen and Stolper (2017) examine stock market responses to the data leaks on the stock prices of banks known to provide such services. They find negative abnormal returns in this sample of banks in the days following the leaks, suggesting that the market lowered its expectations about the expected future earnings of banks that might assist foreign customers with tax evasion. This is the first study to our knowledge to examine how a corporation might be impacted by a leak that is not directly related to the tax strategies of the company itself.

useful to have academics working with taxing authorities as they develop the disclosure policy details, to make them amenable and valuable to study. For example, if a new disclosure is introduced only for firms above a certain size threshold, comparing the behavior of firms just above and just below that threshold may provide useful information regarding the effectiveness of the disclosure mandate. Further, as information-sharing agreements increase between taxing authorities, studying one country's tax system with the data from another jurisdiction, through shared information, may become increasingly possible.

In addition to accessing and analyzing tax return information, researchers should also study other disclosures made in the tax compliance process. There is also a substantial amount of disclosure that happens throughout the audit process, but we know of no study that examines the disclosures made throughout the audit process and the disclosure strategies firms may follow as they are audited. Examining how firms respond to requests for information during an audit, and whether such strategies themselves might be related to the initial tax planning strategies, could help our understanding of firms' disclosure choices throughout the audit process.

While we have reviewed several papers that examine the effects of public disclosure on firms, one interesting but underexplored area is the effect of such disclosure on private firms. Public firms who are subject to mandatory tax disclosure will reveal, or have revealed on their behalf, some additional information regarding their tax behavior. This information will be incremental to information provided in their financial statements. However, for some private firms, especially those in countries like the US that mandate almost no public disclosure of private firms, public tax disclosure may represent the only public disclosure the firm makes about its tax behavior.[70] This distinction renders mandatory disclosure by private companies unique because

[70] An excellent example of this is Koch Industries, the largest private firm in the US, whose disclosures page on its website, at "https://www.kochind.com/disclosures", contains only tax strategy disclosures.

the information is indeed completely new and, by definition, cannot conflict with a previous or otherwise concurrent disclosure provided elsewhere.

Public tax disclosure research has also focused on the existence of disclosure itself, instead of focusing on the specific ways in which disclosures are carried out. If disclosure is seen as a viable tax enforcement tool, understanding how best to make these disclosures would help this tool be more effective. For example, do disclosures induce a larger revenue response when the firm themselves makes the disclosure, or when it is made by a regulator? In the Australian case, the ATO disclosed the tax-return information. Further, how should such releases be done? One at a time as they become available, or all at once (as was done by the ATO).[71] And, what venue is best if the firm is to make the disclosure? In the UK tax strategy case, the disclosure rule mandated that the disclosures simply be made public so that they could easily be found—would they have had a different effect had they been required to be posted to some centralized website?[72] How broadly information is disseminated matters (Blankespoor et al. 2020), and the extent of dissemination will vary based on the disclosure strategy.

Some other potential behavioral effects of public disclosures have not been analyzed. For example, public disclosure of corporate tax returns, to the extent that they impose additional costs, would affect the relative attractiveness of corporate versus non-corporate entity choice. If public disclosure only applied to publicly traded corporations, it could affect the relative attractiveness of

[71] We know, for example, that information bunched together may have different effects than information spread out across time (Chapman, Reiter, White, and Williams 2019).

[72] One potential way to examine this would be to take such a disclosure mandate with no centralized reporting and create a centralized reporting location for a random set of firms. For example, researchers would gather and publicize public reports for some firms, and not others, on a single website, and examine whether covered firms are more likely to be covered in the media, etc.

a corporation choosing to be listed versus being privately held.[73] Is this an inefficient distortion or an externality-correcting efficiency?

8. Concluding Remarks

Tax disclosure of all types is increasing. An understanding of the consequences of disclosure is critical for assessing the costs and benefits of using disclosure as a regulatory tool and for managers contemplating making disclosures on behalf of their firm. In this review paper, we develop a framework for considering tax disclosure, and review the relevant research.

The biggest takeaway for future tax disclosure policy from our review is that there is no one result—disclosure is neither universally successful nor unsuccessful. Rather, the success of a disclosure regime, or the effect of public disclosure, depends on the institutional details and specific requirements of the disclosure mandate. Disclosure mandates should not be viewed as a tax enforcement panacea, and many of the disclosure policies we explore in this summary failed to achieve their objective. While several papers document firms actively trying to avoid disclosure mandates, few papers document large compliance effects of tax disclosure. Every mechanism through which tax disclosure may result in additional revenue is predicated upon institutional features of the disclosure. For example, if increased revenue is expected through the shaming mechanism—that ordinary people will see these disclosures and demand corporations change their behavior, there is scant evidence that individuals pay much attention to corporate disclosures about taxes (Asay et al. 2023). As a result, the details of how shaming works, whether citizens care, how openly the information is disseminated, whether they are covered by the media, whether the tax

[73] Yost (2022) documents that the adoption of FIN 48 incentivizes firms to go private, and the effect is more pronounced for tax-aggressive firms. Note, though, that examining the differential sensitivity of public versus private firms is challenging because they are often different in many other ways (Hoopes, Langetieg, Maydew, and Mullaney 2019); nevertheless, examining their differential sensitivity to public tax disclosure would enhance our knowledge and improve the use of public disclosure as a policy tool. Tannenwald (2003) raised the issue of public disclosure increasing the cost of doing business in a state, potentially affecting the location of investment decisions.

authority shames or the companies are forced to disclose themselves, whether the tax authority discloses the information all at once, or slowly over time, all would matter to the effectiveness of a shaming regime.

In addition to the shaming mechanism, there are two other mechanisms disclosure could result in more revenue. First, the deterrence mechanism. If increased enforcement is expected to increase tax payments through a deterrence effect, then the tax authority must actually use the information, or at least the firms must anticipate it being used (Alstadsæter, Casi-Eberhard, Miethe, and Stage 2023).[74] Further, if similar information already exists to what is being mandated, the revenue effects of disclosure regimes should be expected to be muted (Nessa, Persson, Song, Towery, and Vernon 2022). As a result, the anticipated capacity of the tax authority to use information, the information it already has, how well it can link between information reports it receives, etc., will all dictate how effective a disclosure regime is. Second, tax collections may be useful in the enforcement process and generate additional income upon audit.[75] As a result, how effective the audit process is, how well the information can be used in the litigation process, etc., will all play a role in the effect of disclosure on additional revenue. In summary, the effectiveness of tax disclosure regimes is contingent upon institutional details of the disclosure and the setting in which it is mandated.

There are three trends in corporate tax disclosure that point to where tax disclosure policy may be heading, and therefore may also suggest future general directions for impactful tax research. First, there is an increase in demand for private disclosure. Most notably, since its

[74] One of the authors of this study was once told by a high-ranking tax official that she was not bothered if mandated information reports went unused by the tax authority, so long as taxpayers believed so and acted accordingly.
[75] Intriguingly, we know little about this mechanism. Because tax researchers are often in a race against each other to examine new disclosure regimes, few seldom wait long enough to examine actual increases in collections because the tax authority uses the disclosure in their enforcement regime—most rely upon increased remittances because corporate taxpayers increase compliance expecting this use by tax authorities (the deterrence effect).

inception in 2016, the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) has increased "private" corporate tax disclosure in 140 countries. Under Action 5 on Harmful Tax Practices, over 41,000 exchanges of taxpayer-specific tax rulings between governments have taken place as of September 2022.[76] Under Action 13 on Country-by-Country (CbC) reporting, more than 3,200 bilateral relationships for CbC report exchanges are in place as of September 2022. These and many other new disclosure regulations around the world substantially increase taxing authorities' access to information that could improve tax administration, change corporate tax behavior, and/or impose significant compliance burdens.

A second trend is the desire to expand public access to private disclosure. This includes regulations that compel or enable taxing authorities to disclose their own private information. Expanding public access to private disclosures could improve tax compliance in ways that private disclosures alone would not, although there is limited empirical evidence that this has happened in the past. However, one concern is that the public is not capable of understanding the information, which could impose political and compliance costs on firms without improving tax administration or improving transparency to firms' stakeholders and could be costly for firms.

Finally, we see increased demand for public disclosure. For example, in 2021 the European Parliament and Council approved public CbC disclosure for all large EU MNEs and MNEs doing business in the EU. There are other examples of increased disclosure in financial statements. Effective for fiscal years beginning on or after January 1, 2019, IFRIC 23 under IFRS now clarifies how to account for income tax when it is unclear whether the tax authority will accept the company's tax treatment. On November 17, 2021, the FASB issued ASU 2021-10, which requires business entities to provide disclosures when they receive government assistance in the form of

[76]See https://www.oecd.org/tax/beps/oecd-g20-inclusive-framework-on-beps-progress-report-september-2021-september-2022.htm

tax benefits. Increased disclosure in financial statements differentially affects privately held and publicly traded companies as well as small and large companies. Of course, the extent to which these trends provide better rather than just more information and the long-term impact on the companies themselves is unknown. However, examining these current trends should be done considering past successes in tax disclosure.

References

Abernathy, J. L., S. A. Davenport, and E. T. Rapley. 2012. Schedule UTP: Stock Price Reaction and Economic Consequences. *The Journal of the American Taxation Association* 35 (1): 25–48.

Adhikari, B., J. Alm, and T. F. Harris. 2021. Small business tax compliance under third-party reporting. *Journal of Public Economics* 203: 104514.

Allen, E., and A. Uysal. 2022. The Impact of the Mandatory Disclosure of Corporate Tax Returns on Reporting Bias. *Working Paper*.

Alstadsæter, A., E. Casi-Eberhard, J. Miethe, and B. Stage. 2023. Lost in information: national implementation of global tax agreements.

Angaretis, C., B. D. Galle, P. Organ, and A. C. Prohofsky. 2021. *Does Shaming Pay? Evaluating California's Top 500 Tax Delinquent Publication Program*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Asay, H. S., J. L. Hoopes, J. R. Thornock, and J. H. Wilde. 2023. Tax Boycotts. *Working paper*.

Bagchi, S., and L. Dušek. 2021. The effects of introducing withholding and third-party reporting on tax collections: Evidence from the U.S. state personal income tax. *Journal of Public Economics* 204: 104537.

Baloria, V. 2016. Determinants and economic consequences of firm participation at policy-related congressional hearings. *Working Paper*.

Barrick, J. A., and J. L. Brown. 2018. Tax-Related Corporate Political Activity Research: A Literature Review. *Journal of the American Taxation Association* 41 (1): 59–89.

Beck, P. J., J. S. Davis, and W.-O. Jung. 2000. Taxpayer Disclosure and Penalty Laws. *Journal of Public Economic Theory* 2 (2): 243–272.

Beck, P., and P. Lisowsky. 2014. Financial statement incentives and benefits of voluntary real-time tax audits. *The Accounting Review* Forthcoming (89): 867–901.

Becker, J., R. B. Davies, and G. Jakobs. 2017. The economics of advance pricing agreements. *Journal of Economic Behavior & Organization* 134: 255–268.

Belnap, A. 2020. The Effect of Public Scrutiny on Mandatory and Voluntary Disclosure: Evidence from a Randomized Field Experiment. Ph.D., United States -- North Carolina: The University of North Carolina at Chapel Hill.

Belnap, A. 2021. The Effect of Intermediary Coverage on Disclosure: Evidence from a Randomized Field Experiment. *Working Paper*.

Belnap, A., S. D. Dyreng, and J. L. Hoopes. 2019. File No. 2019-500: Comments on the Revised Exposure Draft for the Proposed Accounting Standards Update to Income Taxes (Topic 740). Letter to FASB.

Belnap, A., J. R. Thornock, and B. M. Williams. 2019. The Long Arm of the U.S. Tax Law: Participation Rates and Costs related to Mandated Information Sharing. *Working paper*.

Bennedsen, M., and S. Zeume. 2017. Corporate Tax Havens and Transparency. *Review of Financial Studies* 31 (4): 1221–1264.

Beyer, A., D. A. Cohen, T. Z. Lys, and B. R. Walther. 2010. The financial reporting environment: Review of the recent literature. *Journal of Accounting and Economics* 50 (2–3): 296–343.

Bilicka, K. A., E. Casi-Eberhard, C. Seregni, and B. Stage. 2022. *Tax strategy disclosure: A greenwashing mandate?* SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Bjørneby, M., A. Alstadsæter, and K. Telle. 2021. Limits to third-party reporting: Evidence from a randomized field experiment in Norway. *Journal of Public Economics* 203: 104512.

Blankespoor, E., E. deHaan, and I. Marinovic. 2020. Disclosure processing costs, investors' information choice, and equity market outcomes: A review. *Journal of Accounting and Economics* 70 (2): 101344.

Blau, B. M., T. J. Brough, and D. W. Thomas. 2013. Corporate lobbying, political connections, and the bailout of banks. *Journal of Banking & Finance* 37 (8): 3007–3017.

Bø, E. E., J. Slemrod, and T. O. Thoresen. 2015. Taxes on the Internet: Deterrence effects of public disclosure. *American Economic Journal: Economic Policy* 7 (1): 36–62.

Bourne, E., C. Dodsworth, and J. Kooroshy. 2021. Global trends in corporate tax disclosure. Principles for Responsible Investment.

Bozanic, Z., J. L. Hoopes, J. R. Thornock, and B. Williams. 2017. IRS Attention. *Journal of Accounting Research* 55 (1): 79–114.

Bratten, B., and D. Hulse. 2016. Retroactive Tax Legislation, Reported Earnings, and Investors' Responses to Earnings "Surprises": Evidence from R&D Credit Extensions. *The Journal of the American Taxation Association* In-Press.

Braun, J., and A. J. Weichenrieder. 2015. Does Exchange of Information between Tax Authorities Influence Multinationals' Use of Tax Havens?

Brown, P., V. Jaramillo, V. van der Lans, F. Verweihmeren, D. Ring, and T. Carney. 2019. Combating Aggressive Tax Planning Through Disclosure: A Comparison of U.S. and EU Rules Applicable to Tax Advisors. *ABA Tax Times* 38 (3).

Casi, E., X. Chen, M. Orlic, and C. Spengel. 2021. One directive, several transpositions a cross-country evaluation of the national implementation of DAC6. *World Tax Journal* 13 (1).

Chan, C. 2021. Tax transparency for MNEs and the ATO. Wolters Cluwer. *Expert Insights*.

Chapman, K. L., N. Reiter, H. D. White, and C. D. Williams. 2019. Information overload and disclosure smoothing. *Review of Accounting Studies* 24 (4): 1486–1522.

Chen, S. 2016. Do Investors Value Corporate Tax Return Information? Evidence from Australia. *Working Paper*.

Chen, S., K. Schuchard, and B. Stomberg. 2019. Media Coverage of Corporate Taxes. *The Accounting Review*.

Chen, Z., S. Dyreng, and B. Li. 2018. *Corporate Political Contributions and Tax Avoidance*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Clifford, S., and P. Mavrokonstantis. 2021. Tax enforcement using a hybrid between self- and third-party reporting. *Journal of Public Economics* 203: 104519.

Cockfield, A. J., and C. D. MacArthur. 2015. Country-by-Country Reporting and Commercial Confidentiality. *Canadian Tax Journal* 63 (3): 627–660.

Czerniec, M. 2011. SC Johnson companies pay no Wisconsin income taxes? *MarkCz.com*.

De Simone, L., R. Lester, and K. Markle. 2020. Transparency and Tax Evasion: Evidence from the Foreign Account Tax Compliance Act (FATCA). *Journal of Accounting Research* 58 (1): 105–153.

De Simone, L., and M. Olbert. 2022. Real Effects of Private Country-by-Country Disclosure. *The Accounting Review*.

De Simone, L., R. C. Sansing, and J. K. Seidman. 2013. When are Enhanced Relationship Tax Compliance Programs Mutually Beneficial? *The Accounting Review* 88 (6): 1971–1991.

Donmoyer, R. J. 2010. White House Adviser's Comment on Koch Taxes Probed. *Bloomberg Business*, October 7.

Donohoe, M. P., and G. A. McGill. 2011. The Effects of Increased Book-Tax Difference Tax Return Disclosures on Firm Valuation and Behavior. *The Journal of the American Taxation Association* 33 (2): 35–65.

Dutt, V. K., C. Ludwig, K. Nicolay, H. Vay, and J. Voget. 2018. *Increasing Tax Transparency: Investor Reactions to the Country-by-Country Reporting Requirement for EU Financial Institutions*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Dyreng, S., J. L. Hoopes, and J. H. Wilde. 2016. Public Pressure and Corporate Tax Behavior. *Journal of Accounting Research* 54 (1): 147–186.

Dyreng, S., J. Hoopes, P. Langetieg, and J. Wilde. 2020. Strategic Subsidiary Disclosure. *Journal of Accounting Research*.

Dyreng, S., M. Jacob, X. Jiang, and M. A. Müller. 2020. *Tax Incidence and Tax Avoidance*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Eberhartinger, E., R. Speitmann, and C. Sureth-Sloane. 2021. *Banks' tax disclosure, financial secrecy, and tax haven heterogeneity*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Edwards, A., M. Hutchens, and A. Persson. 2021. *Do Third-Party Cross-Border Tax Transparency Requirements Impact Firm Behavior?* SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Edwards, A. S., A. Koester, and T. J. Shevlin. 2010. Examining Investor Reaction to IRS Announcement 2010-09. *Tax Notes* May: 669–674.

Ernst & Young. 2014. Bridging the divide: Highlights from the 2014 Tax risk and controversy survey.

FedEx. 2019. FedEx responds to The New York Times article from Nov. 17, 2019.

Flagmeier, V., and V. Gawehn. 2020. Do Investors Care About Tax Disclosure? *Working paper*.

Fox, Z. D., M. Jacob, J. H. Wilde, and R. J. Wilson. 2021. *Beyond Borders: Supragovernmental Tax Enforcement and Investment*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Frank, M. M., J. L. Hoopes, and R. Lester. 2022. What determines where opportunity knocks? Political affiliation in the selection of Opportunity Zones. *Journal of Public Economics* 206: 104588.

Frischmann, P. J., T. Shevlin, and R. Wilson. 2008. Economic consequences of increasing the conformity in accounting for uncertain tax benefits. *Journal of Accounting and Economics* 46 (2–3): 261–278.

Genest, N. 2022. *The Quality of Voluntary Tax Disclosure*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Genest, N., and Y. Wu. 2022. *Public Tax Return Disclosure and Investors' Differential Interpretation*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Gillitzer, C., and P. E. Skov. 2018. The use of third-party information reporting for tax deductions: evidence and implications from charitable deductions in Denmark. *Oxford Economic Papers* 70 (3): 892–916.

Graham, J. R., J. S. Raedy, and D. A. Shackelford. 2011. Research in accounting for income taxes. *Journal of Accounting and Economics*.

Hanlon, M., J. L. Hoopes, and J. Slemrod. 2019. Tax Reform Made Me Do It! *Tax Policy and the Economy* 33.

Hasegawa, M., J. L. Hoopes, R. Ishida, and J. B. Slemrod. 2013. The Effect of Public Disclosure on Reported Taxable Income: Evidence from Individuals and Corporations in Japan. *National Tax Journal* 6 (33): 571–608.

Healy, P. M., and K. G. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31 (1–3): 405–440.

Heckemeyer, J. H., and A. K. Hemmerich. 2018. *Information Exchange and Tax Haven Investment in OECD Securities Markets*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Henry, E., N. Massel, and E. M. Towery. 2016. Increased tax disclosures and corporate tax avoidance. *National Tax Journal* 69 (4): 809–830.

Hill, M. D., G. W. Kelly, G. B. Lockhart, and R. A. Van Ness. 2013. Determinants and Effects of Corporate Lobbying. *Financial Management* 42 (4): 931–957.

Honaker, K., and D. S. Sharma. 2017. Does Schedule UTP Have Uniform Long-Run Effects on Corporate Tax Planning? *Journal of the American Taxation Association* 39 (2): 63–79.

Hoopes, J. 2020. How Joe Biden wants to keep companies from pulling a Kylie Jenner — and why it's a bad idea | The Hill. *The Hill*, June 12.

Hoopes, J. 2021. How Not to Fix a Tax System: Taxing Book Income and the Wealth Tax. *Tax Notes* 171: 1563–1570.

Hoopes, J. L. 2018. The Effect of Temporary Tax Laws on Understanding and Predicting Corporate Earnings. *Unpublished Dissertation, University of Michigan*.

Hoopes, J. L., P. Langetieg, E. L. Maydew, and M. Mullaney. 2019. Is Tax Planning Best Done In Private? *Working Paper*.

Hoopes, J. L., L. A. Robinson, and J. B. Slemrod. 2018. The Impact of Public Tax-Return Disclosure. *Journal of Accounting and Economics* 66 (1): 142–162.

Huang, J., J. (Xuefeng) Jiang, and A. Persson. 2021. *Does Private Country-by-Country Reporting Improve the Tax Information Environment for Capital Market Participants?* SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Huesecken, B., M. Overesch, and A. Tassius. 2018. *Effects of Disclosing Tax Avoidance: Capital Market Reaction to LuxLeaks*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Hugger, F. 2019. The Impact of Country-by-Country Reporting on Corporate Tax Avoidance. *Working Paper*.

Internal Revenue Service. 2017. IRS Whistleblower Program Fiscal Year 2016 Annual Report to the Congress.

IRS. 2013. *Internal Revenue Service Advisory Council Annual Report*.

Johannesen, N., P. Langetieg, D. Reck, M. Risch, and J. Slemrod. 2020. Taxing Hidden Wealth: The Consequences of US Enforcement Initiatives on Evasive Foreign Accounts. *American Economic Journal: Economic Policy* 12 (3): 312–346.

Johannesen, N., and D. T. Larsen. 2016. The power of financial transparency: An event study of country-by-country reporting standards. *Economics Letters* 145: 120–122.

Johnson, D. C. 2011. Wiping out Wisconsin taxes. *Reuters*, September 8, sec. David Cay Johnston.

Joshi, P. 2020. Does Private Country-by-Country Reporting Deter Tax Avoidance and Income Shifting? Evidence from BEPS Action Item 13. *Journal of Accounting Research* 58 (2): 333–381.

Joshi, P., L. Markle, and L. Robinson. 2022. Private Country-by-Country Reporting and the Misalignment between Profits and Economic Activity. *Working Paper*.

Joshi, P., E. Outslay, and A. Persson. 2020. Does Public Country-by-Country Reporting Deter Tax Avoidance and Income Shifting? Evidence from the European Banking Industry. *Contemporary Accounting Research*.

Kamdar, N. 1995. Information reporting and tax compliance: An investigation using individual TCMP data. *Atlantic Economic Journal* 23 (4): 278–292.

Kays, A. 2021. Voluntary Disclosure Responses to Mandated Disclosure: Evidence from Australian Corporate Tax Transparency. *The Accounting Review*: TAR-2018-0262.

Kess, S., J. R. Grimaldi, and J. Bubié. 2021. Tax Changes for Businesses in the American Rescue Plan Act. *The CPA Journal* 91 (4/5): 9–10.

Kleven, H. J., M. B. Knudsen, C. T. Kreiner, S. Pedersen, and E. Saez. 2011. Unwilling or Unable to Cheat? Evidence From a Tax Audit Experiment in Denmark. *Econometrica* 79 (3): 651–692.

Kleven, H. J., C. T. Kreiner, and E. Saez. 2016. Why Can Modern Governments Tax So Much? An Agency Model of Firms as Fiscal Intermediaries. *Economica* 83 (330): 219–246.

Konda, L., E. Patel, and N. Seegert. 2020. *Tax Enforcement and the Intended and Unintended Consequences of Information Disclosure*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Kornhauser, M. E. 2005. Doing the Full Monty: Will Publicizing Tax Information Increase Compliance? *Canadian Journal of Law and Jurisprudence* 8 (1).

Kubick, T. R., D. P. Lynch, M. A. Mayberry, and T. C. Omer. 2016. The Effects of Regulatory Scrutiny on Tax Avoidance: An Examination of SEC Comment Letters. *The Accounting Review*.

Lambert, T. 2018. Lobbying on Regulatory Enforcement Actions: Evidence from U.S. Commercial and Savings Banks. *Management Science* 65 (6): 2545–2572.

Langenmayr, D. 2017. Voluntary disclosure of evaded taxes — Increasing revenue, or increasing incentives to evade? *Journal of Public Economics* 151: 110–125.

Lennox, C. S., W. Li, B. Lin, and Z.-T. Wang. 2015. Tax Aggressiveness, R&D Spending, and Firms' Claims for R&D Tax Deductions: Evidence from China. *Working Paper*.

Lenter, D., J. Slemrod, and D. A. Shackelford. 2003. Public Disclosure of Corporate Tax Return Information: Accounting, Economics, and Legal Perspectives. *National Tax Journal* 56 (4): 803–30.

Leuz, C., and P. D. Wysocki. 2008. *Economic Consequences of Financial Reporting and Disclosure Regulation: A Review and Suggestions for Future Research*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Levin, C. 2014. Caterpillar's Offshore Tax Strategy. Permanent Subcommittee on Investigations.

Li, Q., E. L. Maydew, R. H. Willis, and L. Xu. 2021. *Taxes and Director Independence: Evidence from Board Reforms Worldwide*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Lisowsky, P. 2009. Inferring U.S. Tax Liability from Financial Statement Information. *Journal of the American Taxation Association* 31 (1): 29–63.

Lisowsky, P. 2010. Seeking shelter: Empirically modeling tax shelters using financial statement information. *The Accounting Review* 85: 1693.

Lisowsky, P., L. Robinson, and A. Schmidt. 2013. Do Publicly Disclosed Tax Reserves Tell Us About Privately Disclosed Tax Shelter Activity? *Journal of Accounting Research* 51 (3): 583–629.

Lohse, T., and N. Riedel. 2012. *The impact of transfer pricing regulations on profit shifting within European multinationals*. FZID Discussion Paper. University of Hohenheim, Center for Research on Innovation and Services (FZID).

Mason, P. D., S. Utke, and B. M. Williams. 2019. Why Pay Our Fair Share? How Perceived Influence over Laws Affects Tax Evasion. *Journal of the American Taxation Association* 42 (1): 133–156.

Mayberry, M. A., and L. Watson. 2020. Is Corporate Social Responsibility Related to Corporate Tax Avoidance? Evidence from a Natural Experiment. *Journal of the American Taxation Association* 43 (1): 79–106.

Mills, L. F., and K. J. Newberry. 2001. The Influence of Tax and Nontax Costs on Book-Tax Reporting Differences: Public and Private Firms. *The Journal of the American Taxation Association* 23 (1): 1–19.

Mills, L. F., and G. E. Plesko. 2003. Bridging the Reporting Gap: A Proposal for More Informative Reconciling of Book and Tax Income. *National Tax Journal* 56 (4): 865–893.

Müller, R., C. Spengel, and H. Vay. 2020. *On the Determinants and Effects of Corporate Tax Transparency: Review of an Emerging Literature*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Müller, R., C. Spengel, and S. Weck. 2021. *How Do Investors Value the Publication of Tax Information? Evidence From the European Public Country-By-Country Reporting*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Naritomi, J. 2019. Consumers as Tax Auditors. *American Economic Review* 109 (9): 3031–3072.

Nesbitt, W. L., E. Outslay, and A. Persson. 2018. The Relation between Tax Risk and Firm Value: Evidence from the Luxembourg Tax Leaks. *Working Paper*.

Nessa, M. L., A. Persson, J. Z. Song, E. Towery, and M. Vernon. 2022. The Effect of U.S. Country-by-Country Reporting on U.S. Multinationals' Tax-Motivated Income Shifting and Real Activities. SSRN Scholarly Paper. Rochester, NY.

Neubig, T. S., and J. B. Slemrod. 2017. *A Tax-Systems Perspective on Recent Global Tax Initiatives*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

O'Donovan, J., H. F. Wagner, and S. Zeume. 2019. The Value of Offshore Secrets: Evidence from the Panama Papers. *The Review of Financial Studies* 32 (11): 4117–4155.

OECD. 2013a. Addressing Base Erosion and Profit Shifting.

OECD. 2013b. Action Plan on Base Erosion and Profit Shifting.

OECD. 2014a. Discussion Draft On Transfer Pricing Documentation and CbC Reporting.

OECD. 2014b. Guidance on Transfer Pricing Documentation and Country-by-Country Reporting.

Olson, A., J. Barrick, W. B. Tayler, S. Rajgopal, and G. Bai. 2020. Lobbying Expenditures of the Health Sector During the COVID-19 Pandemic. *Journal of General Internal Medicine* 35 (10): 3133–3136.

Omartian, J. 2017. *Tax Information Exchange and Offshore Entities: Evidence from the Panama Papers*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Pearl, M. 2016. Opinion | How Companies Like Apple Dodge Taxes and Their Own Investors. *The New York Times*, September 21, sec. Opinion.

Perez-Truglia, R., and U. Troiano. 2018. Shaming tax delinquents. *Journal of Public Economics* 167: 120–137.

Phillips, M. D. 2014. Individual income tax compliance and information reporting: what do the u.s. data show? *National Tax Journal* 67 (3): 531–567.

Rauter, T. 2020. The Effect of Mandatory Extraction Payment Disclosures on Corporate Payment and Investment Policies Abroad. *Journal of Accounting Research* 58 (5): 1075–1116.

Reuters Staff. 2019. FedEx CEO challenges NYT publisher to public debate after tax story. *Reuters*, November 18, sec. Business News.

Robinson, L., and J. Slemrod. 2012. Understanding multidimensional tax systems. *International Tax and Public Finance* 19 (2): 237–267.

RSM. 2015. Mexican tax authorities require disclosure of relevant transactions. http://rsmus.com/what-we-do/services/tax/tax-alerts/mexican-tax-authorities-require-disclosure-of-relevant-transacti.html.

SC Johnson. 2011. Statement by Kelly M. Semrau, Senior Vice President – Global Corporate Affairs, Communication & Sustainability.

Schmal, F., K. Schulte Sasse, and C. Watrin. 2021. Trouble in Paradise? Disclosure After Tax Haven Leaks. *Journal of Accounting, Auditing & Finance*: 0148558X20986348.

Sheffrin, S. M. 1994. Perceptions of fairness in the crucible of tax policy. *Tax progressivity and income inequality* 309: 311–14.

Shevlin, T., J. Thornock, and B. Williams. 2017. An examination of firms' responses to tax forgiveness. *Review of Accounting Studies* 22 (2): 577–607.

Slemrod, J. B., B. Collins, J. L. Hoopes, D. H. Reck, and M. Sebastiani. 2016. Does Credit-Card Information Reporting Improve Small-Business Tax Compliance? *Working Paper*.

Slemrod, J., O. U. Rehman, and M. Waseem. 2022. How Do Taxpayers Respond to Public Disclosure and Social Recognition Programs? Evidence from Pakistan. *The Review of Economics and Statistics* 104 (1): 116–132.

Tang, T. Y. H. 2020. An Investigation of Tax-Related Corporate Political Activity in China: Evidence From Consumption Bribery. *Journal of Accounting, Auditing & Finance*: 0148558X20965698.

Tankersley, J., P. Eavis, and B. Casselman. 2019. How FedEx Cut Its Tax Bill to $0. *The New York Times*, November 17, sec. Business.

Tannenwald, R. 2003. Corporate Tax Disclosure at the State Level: The Massachusetts Experience. *Working Paper*.

TIGTA. 2018. *The Uncertain Tax Position Statement Does Not Contain Sufficient Information to Be Useful in Compliance Efforts*.

Toope, S. J., and A. L. Young. 1981. Confidentiality of Tax Returns under Canadian Law. *McGill Law Journal* 27 (3): 479–503.

Towery, E. M. 2017. Unintended Consequences of Linking Tax Return Disclosures to Financial Reporting for Income Taxes: Evidence from Schedule UTP. *The Accounting Review* 92 (5).

Verrecchia, R. E. 1983. Discretionary disclosure. *Journal of Accounting and Economics* 5: 179–194.

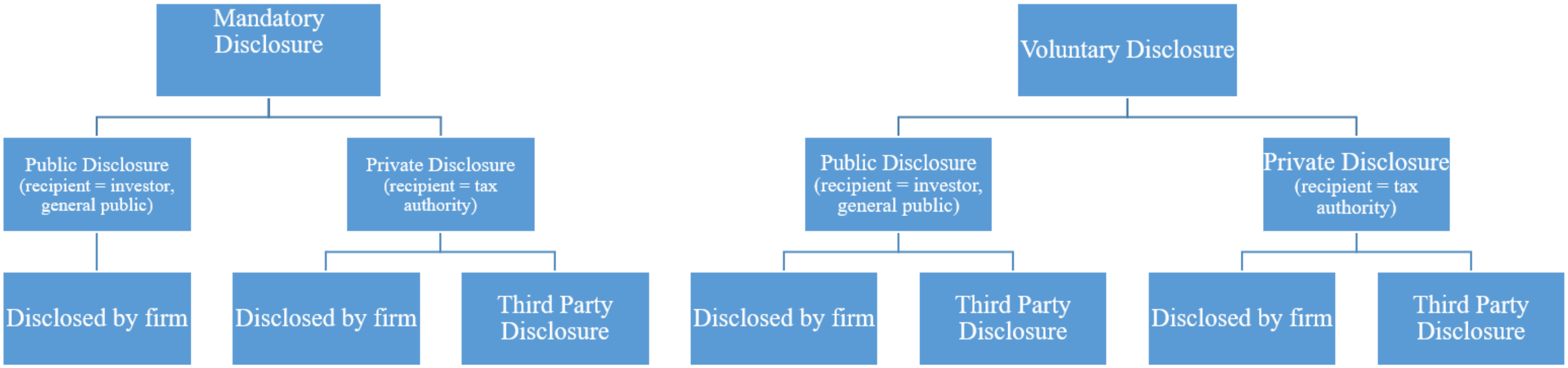
Verrecchia, R. E., and J. Weber. 2006. Redacted Disclosure. *Journal of Accounting Research* 44 (4): 791–814.

Wilde, J. H. 2017. The Deterrent Effect of Employee Whistleblowing on Firms' Financial Misreporting and Tax Aggressiveness. *The Accounting Review* 92 (5): 247–280.

Xia, J. 2020. Qualitative Disclosure as a Tax Enforcement Mechanism: Evidence from the U.K. Tax Strategy Disclosure Requirement. *Dissertation, Indiana University*.

Yost, B. 2022. *Do Tax-Based Proprietary Costs Discourage Public Listing? Evidence from FIN 48*. SSRN Scholarly Paper. Rochester, NY: Social Science Research Network.

Figure 1. Framework for Disclosure of Corporate Tax Information



<u>Examples</u>
- Public country-by-country reports
- select data from corporate tax return in Australia

<u>Examples</u>
- Private country-by-country reports
- full corporate tax return including supporting schedules
- reportable transaction disclosures

<u>Examples</u>
- Information reporting of electronic payments
- reporting by advisors and promoters
- exchange of information by taxing authorities

<u>Examples</u>
- Quality of disclosure in financial reports of tax related information
- tax strategy disclosures
- tax disclosure in ESG reports
- defensive disclosure in the media

<u>Examples</u>
- Tax shaming
- data leaks

<u>Examples</u>
- amnesty programs
- disclosure under collaborative programs

<u>Examples</u>
- Whistleblowing
- disclosures in exchange for penalty reduction

Table 1. Select Trends in Mandatory Corporate Tax Disclosure

Date	Country	Type	Description of disclosure	
1924	US	Public	Disclosure of tax information by corporations and individuals, only one year	
1950	Japan	Public	Disclosure of tax information by corporations (1950-2004)	Hasegawa et al. 2013
1980	US	Public	Reg SX mandates disclosure of >5% items in ETR rate reconciliation	
1992	US	Public	FAS 109 financial statement income tax disclosures	Graham et al. 2011 for a review
1999	US	Public	Financial information including tax by tax-exempt organizations (Form 990)	
2002	Norway	Public	Corporate tax return information made accessible online	Bø et al. 2015
2002	US	Public	Extractive Industry Transparency Initiative launched	
2003+	Multiple	Private	Reportable transactions of aggressive tax planning: US (2003), UK (2004), Ireland (2010), (Canada (2013), Spain (2014), Israel (2015), Mexico (2015)	Lisowsky 2010; Lisowsky et al. 2013
2003	US	Private	Foreign Account Tax Compliance Act	Johannesen et al. 2020; De Simone et al. 2020; Belnap et al. 2020
2004	US	Private	Schedule M-3 book-tax reconciliation	Donohoe and McGill 2011; Henry et al. 2016
2006	US	Public	Financial statement disclosure of uncertain tax positions (FIN48)	Beck and Lisowsky 2014; Henry et al. 2016; Yost 2022
2006	UK	Public	Companies Act 2006 S409 requires companies to report information on related undertakings in their annual financial statements	

2010	US	Public	Extractive industry country-by-country (CbC) tax reporting (not required until 2018)	
2010	US	Private	Tax return disclosure of uncertain tax positions (Schedule UTP)	Abernathy et al. 2012; Edwards et al. 2010; Henry et al. 2016; Honaker and Sharma 2017; Towery 2017; Bozanic et al. 2017
2011	US	Private	Third-party credit card reporting (Form 1099-K)	Slemrod et al. 2016
2012	US	Private	Report of Foreign Bank and Financial Accounts (FBAR) individual foreign accounts	
2013	EU	Public	CbC reporting for extractive and logging industries	Johannesen and Larsen 2016
2014	G20	Private	Common Reporting Standard for automatic exchange of information (AEOI) on financial accounts	
2015	Canada	Public	Extractive Sector Transparency Measures Act	
2015	Multiple	Private	Transfer pricing documentation, including CbC reports, as minimum standard in OECD/G20 BEPS Project	Joshi 2020; Joshi et al. 2022, DeSimone and Olbert 2022
2015	Australia	Public	Large company tax disclosure	Hoopes et al 2018; Chen 2016
2016	Multiple	Private	AEOI commitments to the Global Forum on Transparency and Exchange of Information for Tax Purposes	
2016	Australia	Public	Voluntary Tax Transparency Code	Kays 2021
2016	UK	Public	UK Finance Act (2016) requires large UK companies to publish their tax strategies	Xia 2020; Belnap 2020; Bilicka et al. 2022
2019	Multiple	Public	ESG / PRI standard	

2019	Thailand	Private	Large companies required to disclose transfer pricing information to taxing authority	
2020 Retroactive to 2018	EU + UK	Private	DAC 6 Intermediaries (Accountants/Lawyers/etc.) are required to report to EU taxing authorities cross-border tax planning information they assisted in creating for their clients	Edwards et al. 2021
2021	EU	Public	With the European Parliament and Council just approving public CbC reports for all large EU MNEs and MNEs doing business in the EU	
2021	Russia	Private	Foreign companies required to disclose information to tax authorities on their founders, beneficiaries, and managers	