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Hidden Havens: State and Local Governments as Tax Havens?

Abstract

An international tax haven is usually a low-tax jurisdiction that seeks to attract investment by foreign investors. But, there are many state and local jurisdictions within federal systems that set zero tax rates on personal or corporate income, consumption, property, and wealth in an effort to attract activity from other high-tax jurisdictions. I discuss whether subnational tax havens are distinct from intense tax competition. I conclude that in a federal system, the economic implications of the two may be similar, but the policy responses differ subtly. A survey of the empirical evidence on the effect of zero or very low tax rates indicates that the lowest tax jurisdiction may disproportionately benefit from non-real base shifting, but real and avoidance responses also arise in response to smaller tax differentials between non-havens. Turning to the corporate income tax, I discuss how legal rules such as formula apportionment, economic nexus, and incorporation rules influence tax competition and the avoidance behaviors of multistate companies.

JEL-Codes: H710, H730, H770, K220, K340, R510.

Keywords: tax haven, tax competition, state and local public finance, regulatory competition, corporate charters.

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I. INTRODUCTION

To the casual observer, a "tax haven" stirs up imagery of tropical island paradises that set very low (or zero) tax rates to attract foreign income, usually from multinational companies or rich individuals seeking to avoid taxes. But, there are many jurisdictions—including state or local governments—that set zero tax rates on a particular tax base even when most all other jurisdictions in the federal system set much higher positive tax rates. Within federal systems, the choice to not tax a particular base need not be constrained to corporate profits, with many state or local governments levying zero tax rates on personal income, consumption, wealth, or excises. In addition to tax policy, states and local governments have wide latitude to set regulatory policy. These regulatory policies concerning incorporation law, trust law, secrecy rules, or personal income law may influence the ability of individuals or corporations to engage in tax avoidance/evasion opportunities. Thus, when do state and local governments become tax havens?

In the U.S., nine states including Texas and Florida do not levy a personal income tax on earnings, five states including Oregon and New Hampshire do not levy a state sales tax rate on the consumption of tangible goods, and many states have neither an estate nor inheritance tax. Whether local governments within these states can levy income or sales taxes of their own depends on state laws, but even in states where these local taxes are allowed, a high percentage of municipalities or counties elect not to levy one or more of these taxes. Zero-income-tax states are often talked about in the popular press as key destinations for high-income individuals seeking to reduce their tax liabilities. And zero sales tax states often attract businesses seeking to lure tax-driven cross-border shoppers from nearby metropolitan areas. Given the salience of zero or very low tax rates, what is the difference between a tax haven and intense tax competition? Does the distinction between the two concepts matter for outcomes, welfare analysis, or policy responses?

I will argue that whether a subnational jurisdiction is dubbed a tax haven or not matters substantially for political debate, but the distinction is not necessarily central for the mobility/behavioral responses unless the political debate amplifies the salience of zero-tax or low-tax jurisdictions. Unlike the international stage, federal systems have a wide array of policy tools that can restrict lower-level governments both in terms of their tax rate and tax structures. Although the economic mechanisms may not matter for the avoidance responses to low tax jurisdictions, the desired policy interventions may be subtly different depending on whether the jurisdiction is a “deliberate” tax haven or becomes one because of standard tax competition. Although the intent of the jurisdiction matters, the motivations of whether the taxpayer to use low-tax jurisdictions for avoidance or evasion purposes may be equally critical. As a result, federal systems might resort to changing the tax structure rather than forcing the low-tax jurisdiction to alter tax rates. These policy reforms might include changing the sourcing rules to limit tax competition, changing enforcement of state and local laws, and potentially high-tax jurisdictions “subsidizing” low-tax jurisdictions to levy higher tax rates via intergovernmental transfers.

I first discuss the theoretical reasons why a small number of subnational jurisdictions might levy a zero/low tax rate on a particular base, despite the bulk of other peer jurisdictions in the federal system levying positive rates. While much of the tax competition literature has focused on a single tax instrument and the revenue generating effects of setting a lower tax rate, the argument that undercutting competitors raises revenues cannot apply to the case of zero-tax jurisdictions. One possible explanation is that a zero tax rate on a given tax base attracts mobile factors, people, or sales that then contribute tax revenue to the jurisdiction from *other* taxing instruments. For example, a zero-tax rate on wealth might attract many high-wealth individuals who then help the jurisdiction raise income tax revenue from capital income taxation. Under this scenario, a jurisdiction has chosen its tax mix, electing not to utilize a particular taxing instrument, hoping that tax base mobility helps generate revenue or real economic activity from other sources. Second, an alternative explanation may be that zero-tax jurisdictions arise even as a revenue maximizing outcome because there are fixed administrative costs of setting up a tax system. Finally, zero tax rates may attract economic activity that improves welfare—even if not the revenue—of a jurisdiction. After discussing these theoretical issues, I discuss the empirical evidence on the mobility responses to zero-tax and non-zero-tax jurisdictions. A key insight from this literature is that if the responses to low-tax jurisdictions are not real responses, zero-tax jurisdictions may have tax base elasticities that are distinct from non-zero jurisdictions because they provide the largest tax saving. But, when behavioral responses are real, the empirical literature suggests that people and factors move to low-tax jurisdictions, regardless of if the differentials are large or small. The article makes it clear that whether the rate is zero or a small positive number is less critical than the jurisdiction being the *lowest* tax rate in the federation.

Finally, I return to the issue of corporate havens by considering the role that state and local governments play with respect to regulatory policies governing corporations. For example, states compete for corporate charters in a market for incorporations. One possibility is that states differ in how they treat takeover defenses, which may make a state with favorable policies more attractive to either managers or shareholders. In this case, the "tax havens" are regulatory havens. But, these regulatory differences may interact with corporate tax differences, facilitating tax avoidance. For example, the state of Delaware is favorable for incorporation but it also does not tax income generated from intangible assets, which a company can take advantage of by establishing a Delaware subsidiary and transferring ownership of the asset to it. I discuss the evidence on these issues and the possible policy responses, such as economic nexus standards, that attempt to address these issues. Finally, I discuss how formula apportionment creates incentives for business to move employment, capital or sales across jurisdictions in a way that makes subnational corporate income taxes subject to the tax competition forces of taxes on those individual elements.

While the literature on corporate offshore tax havens is voluminous, this article points to the need for more research on understanding *why* subnational jurisdictions set zero tax rates and the differential effect of zero tax rates on behavioral responses and tax avoidance opportunities. Critically, one would want to know if the mobility elasticity differs depending on if the destination state is the *lowest* tax or simply lower tax than some states. More generally, I raise questions of whether low rates are simply a rational response in the tax competition game. Small places may see relatively large (to them) benefits even if it appears that they result from large non-real effects. If so, then maybe the "bad" actors are better characterized along regulatory dimensions related to secrecy and the ability to set up anonymous companies or trusts. These regulatory differences make the U.S. states havens for secrecy moreso than the traditional countries labeled as tax havens (Sharman 2010).

II. TAX HAVENS VERSUS TAX COMPETITION

A. Definitions

Before proceeding, I define what tax havens and tax competition are. Initially I focus on the definition tax havens from the corporate tax literature. Dharmapala and Hines (2009,p1058) define tax havens as "locations with very low tax rates and other tax attributes designed to appeal to foreign investors." Such a definition could classify low-tax jurisdictions within federal systems if “foreign” were replaced by “nonresident.” Given such a definition may be broad, it is important to define other characteristics of tax havens applicable for subnational jurisdictions. Two possible distinctions that could be applied to define a tax haven (Keen and Konrad 2013) are:

1. Tax havens generally seek to attract *formal/paper* activity resulting from tax or regulatory arbitrage, rather than *substantive/real* investment that generates economic returns.[1]
2. The very low tax rate or lax regulatory standards are a *deliberate* attempt to attract formal activity that does not necessarily reflect the services provided and is not a result of high revenue from other sources.[2]

These two caveats may not necessarily be strict requirements. For example, Ireland attracts a substantial amount of real economic activity. And whether tax-setting behavior is deliberate, may be in the eyes of the beholder, although this will be clarified later. Moreover, the shifting to tax havens in the corporate setting often involve avoidance, rather than evasion schemes. Finally, note that I use both tax and regulatory policies in my definition, which is especially important in the state and local setting.

Some definitions of tax havens also include secrecy, especially for tax havens in the personal income tax setting. As noted in Dharmapala (2017; 2023), personal income tax havens often involve evasion strategies rather than avoidance, whereby individuals hide assets in tax havens and fail to report the income to their resident jurisdiction. In this case, it appears that the intent of the *taxpayer* to commit fraud may be equally as important as the intent of the jurisdiction itself. Historically, secrecy laws for personal income tax havens were critical. But, recent reforms such as the Foreign Account Tax Compliance Act (FATCA), which induces international banks to report income, likely make secrecy less important. I return to these issues when discussing state

[1] Havens may seek to attract holding companies, provide debt finance services, raise revenue from profit shifting, or to attract intellectual property, resulting in high-tax affiliates needing to pay royalties to the subsidiary in the haven. See Dharmapala (2021).

[2] As a result, a country that is rich in revenue from natural resources that can afford to set very low tax rates to meet its spending needs may do so in a manner that has little intent to attract cross-border economic activity.

and local regulatory policies, but initially note the if tax havens are mainly "secrecy jurisdictions" rather than low-tax jurisdictions, many U.S. states would be identified as the most secret of all (Schjelderup 2016).[3] Other definitions of tax havens may include ring-fencing, and one incorrectly might believe that state and local tax laws do not such provisions, an issue I return to subsequently.

Turning to tax competition, Agrawal, Hoyt and Wilson (2022,p1383) define it as "the process by which governments set policy in the presence of competitive pressures caused by policy-induced mobility." While mobility of the tax base could include income shifting or avoidance opportunities, tax competition equally applies to the mobility of real economic activity. Second, tax competition necessarily involves optimizing governments that set tax rates in a manner that trades off increases in tax revenue with changes in private surplus, though tax havens may also be optimizing governments. While many characteristics can matter, such as preferences for public goods or political processes, this literature consistently shows that small jurisdictions will set lower tax rates than larger jurisdictions (Bucovetsky 1991, Kanbur and Keen 1993). As a result, low tax rates may simply be a rational response in the standard tax competition game.

Turning to state and local governments that set zero or low tax rates on a particular base, do they meet the definition of a tax haven or are they simply engaged in intense tax competition that optimally competes their tax rate to zero? To answer this, I consider each component of the definition of tax havens in turn.

B. Do State and Local Governments Want to Attract Formal or Real Activity?

Do state and local governments setting low tax rates on particular assets seek to attract real economic activity or simply seek to attract non-real responses? At first glance, it might appear that state and local governments set low tax rates to grow their economy or to attract high-income households to their state. For example, many states have argued that reducing or eliminating its income tax will increase migration to the state, will improve business competitiveness, and will increase jobs. Similarly, the zero tax rate on sales by states like New Hampshire has inevitably resulted in businesses locating on the New Hampshire side of the border in an attempt to lure tax

[3] One important issue relates to state law governing trusts. Some states allow for nondisclosure while others do not.

driven cross-border shoppers from the Boston metropolitan area (Fox 1986). Fiscal competition in regulatory policies may also influence the real location of economic activity at state borders (Holmes 1998; Agrawal and Trandel 2019).

But, first glances may not tell the entirety of the story. Slemrod (2010,p843) writes that "escaping a jurisdiction's tax net does not necessarily entail and physical movement" and can simply be accomplished via moving the tax base via a "mere stroke of a pen."[4] In the case of residential income taxes, if an individual has a second home, they may be able to reduce their tax burden by simply misreporting the number of days spent in a location, shifting their primary tax domicile to the lower tax jurisdiction. This might occur with no actual (real) response by the individual, implying that employment/economic activity will remain unchanged following a response.[5] At the same time, taxpayers may actually change the number of days physically spent in the state.

In the case of commodity taxes, avoidance occurs by real movements of firms or shoppers over borders, but even in this setting, mobility may also not be real. Carousel fraud is a prime example of how borders can facilitate tax evasion in value added taxes (VAT). With carousel fraud, exporters and fraudulent importers take advantage of the VAT's destination basis. In simplistic form, an exporter receives a VAT refund due to the zero-rating of exports, but the importing firm goes missing before the destination VAT is due. Of course, this type of fraud can exist even if tax differentials are small, but large differences make them especially attractive. However, with respect to such evasion strategies, almost every tax can be evaded in some way or another, so this is not a haven-specific issue unless the very low-tax rates make such strategies disproportionately attractive.

Digitalization and the dramatic increase in digital services also raises challenges for tax authorities. Historically, the European Union taxed digital services at origin. As a result, many

[4] Consistent with this point Bruce, Fox, and Yang (2010) find that state personal income tax rates affect where income is reported for state tax purposes but not for federal purposes, but this might occur via tax evasion or legal avoidance responses such as spending more nights in Florida.

[5] Lax or conflicting rules across different states regarding tax domicile may make these responses legal, even if not real. For example, consider pass-through holding companies in the case of firms.

large digital services companies set up shop in Luxembourg, which provided favored VAT rates on products such as e-books and relatively low corporate tax rates (De Simone and Olbert 2022). While these low rates attracted real firms, the digital output was simply being sold via the firms, with little real economic benefit to the area. Locating in Luxembourg is clearly not fraudulent, and illustrates the problem of making sure the sourcing rules are consistent with limiting tax competition.

From the examples above, one can conclude that while some of the mobility due to state and local taxes are real, there are also plausibly non-real responses that mimic how international tax havens attract formal activities. Of course, if tax regimes are designed to attract non-real rather than real activity, then jurisdiction can also have lax regulatory frameworks, an issue I return to in the context of Delaware. But, because evasion will occur even in the presence of small tax differentials, simply the presence of tax evasion is not sufficient.

The concept of tax havens inevitably centers on taxes, but may also involve legal rules. Models of fiscal competition could also involve competition over spending or taxes because spending and taxes are linked via the budget constraint. In a simple model with a single tax and a single public service, competition could be in the public service. With tax competition, the Nash equilibrium is in tax rates, that is, each jurisdiction takes the other jurisdictions' tax rates as given, and the public service level adjust in other jurisdictions to maintain the balanced-budget condition. In public service competition, the reverse is true: the Nash equilibrium is in the public service, with taxes adjusting to maintain a balanced budget. Wildasin (1988) shows that with identical jurisdictions, public service competition is more “rivalrous”. As a result, in the regional model, equilibrium taxes are lower under public service competition than under tax competition.

I raise the issue of fiscal competition in public expenditures, not to compare it with tax competition, but to note that state and local governments competing in expenditures can become “public good” havens. A jurisdiction with very generous services will attract beneficiaries to the jurisdiction, just like a jurisdiction with low taxes will attract taxpayers. Yet, the literature does not focus on these overly generous jurisdictions with many endogenous amenities as “service paradises.” Perhaps some of the reasons are that services and taxes are linked, though the individuals paying taxes (nonresidents) need not be linked to the individuals receiving benefits (residents). This suggests that haven-like behavior might best be understood when the link via the government budget constraint is broken because the individuals receiving low taxes do not also benefit from public services.

C. Do State and Local Governments Act Deliberately?

Whether a government is acting deliberately to attract investment may be hard to measure. In the state and local context, an important question is whether the jurisdiction has sufficiently high revenue from alternative sources to meet spending needs. The theory of fiscal federalism, and the general spirit of decentralization, allows governments to differ in their preferences over the tax mix chosen. In this way, depending on the government's preferences over equity, efficiency or volatility of the tax base, one state may want to raise revenue from an income tax, while another state may want to raise revenue from a sales tax. Dating back to Musgrave, economists generally believe that taxes with a more redistributive function should be more centralized, but at the same time, redistribution may be a local public good (Pauly 1973). This simple example of countervailing forces reveals how two different states, each with their own objectives, may elect to utilize a given tax instrument while forgoing another.

As in Bucovetsky and Wilson (1991), there are many tax competition models that allow governments to set multiple tax instruments. Some of these models show that one tax may dominate another. For example, Braid (2002) shows conditions where wage taxes dominate business property taxes; Braid (2000) shows if source-based wage and business capital taxes are available, only the former is used; and Braid (2013) shows sales taxes will be less utilized than property taxes. Recently, Agrawal, Hoyt and Wilson (2021) consider a model of within-metropolitan government tax competition where jurisdictions can use up to four different taxing instruments. The central city is different from the surrounding suburbs because it benefits from an inflow of commuters. Then, if both a residential property tax and industrial capital tax are available, the suburbs will endogenously choose to tax property, but may or may not tax capital. In contrast, the city will tax capital and may or may not tax property. The distinction arises because of the heterogeneous ability to engage in tax exporting (city) or tax importing (suburb). More generally, if head taxes or and earnings taxes are available, these taxes may want to be combined with a property subsidy. This result is similar to the well-known argument that zoning should be used to turn distortionary property taxes into efficient head taxes; by showing the property subsidies may exist, the authors show that rather than use zoning to reduce the marginal tax on housing to zero, going past zero into a subsidy may be optimal for some jurisdictions. The key is that these jurisdictions are simply optimizing their choice of instruments in the tax competition game. Indeed, similar arguments could exist in the international corporate tax setting: "tax havens" may use low corporate tax rates to engage in tax exporting, using the revenue to fund public services for residents or to reduce residential tax burdens.

The choice of the tax mix by local jurisdictions is also influenced by the hierarchical nature of federal systems (Hoyt 2017). If a state government already taxes a given base at a relatively high tax rate, then local governments may want to lower/raise their tax rates in response. In this case, a local government may set a very low tax rate, but the state plus local rate in the jurisdiction may be relatively high. If taxed at the state but not local level, this would seem to suggest that factors in the jurisdiction are taxed by *someone*, thus precluding the locality as possibly being a tax haven. Indeed, Agrawal (2015) shows that local governments on the low-state-tax side of the border set much higher local tax rates than localities just across the border on the high-state-tax side. But, these forces of decentralization may create salient tax differentials within the state, raising the possibility that a jurisdiction could be viewed as a tax haven by its *within* state competitors even if it is not *globally* viewed as such because of high federal or state rates.

Another reason why the intent of the jurisdiction is important is because establishing tax systems may be costly for local level governments. Suppose, for example, there is a fixed cost of adopting a new tax system: a locality wishing to tax income may need to establish statutes regarding the tax, fund a new local agency to enforce the tax, and incur political costs of passing a new tax. There also may be constitutional restrictions requiring supermajority rules to adopt a new tax, implying the current choices may have been determined long ago. Even if administration costs are negligible, a new local tax system may impose substantial compliance costs on businesses and individuals that are internalized by the government. Then, if these fixed costs are large enough, the decision to not tax a particular tax base may not be a deliberate attempt to attract investment, but rather the result of an economically rational process whereby the jurisdiction trades off adopting a tax with the fixed costs of doing so. Agrawal, Ly and Parchet (2022) study tax competition in the presence of fixed costs, where local governments first choose to enter the tax competition game and then—conditional on entering—decide the rate to set.

This raises an interesting question: are zero-tax jurisdictions those jurisdictions that specify the zero-tax rate via statute or are they also jurisdictions that simply have the non-existence of tax law for a particular base? For example, in the Spanish wealth tax setting framework below, setting a zero-tax rate requires a deliberate choice and absent doing so, the legal—though not necessarily administrative structure—to support a positive tax is in place. But, many state and local governments in the U.S. simply have no legislation regarding the tax or, in the extreme, constitutional restrictions on the tax raise the fixed cost issue above. The fixed costs differ across these two cases. Under the former case, there is always the risk that the tax rate can be easily increased, while under the latter case, the fixed costs of doing so are likely higher. Thus, the behavioral responses to zero tax rates, which may capture forward looking expectations in the case of decisions related to migration or location, may differ across jurisdictions that are zero-tax by choice versus due to the absence of any law.

The issue of intent of the jurisdiction is also potentially related to how potential taxpayers respond to the tax rate. Ultimately the reasons to set a low tax rate may be linked to the taxpayer responses: whether taxpayers exploit the low tax rate for real or non-real responses. But this raises an interesting question: what if the tax authority sought to attract real economic activity but it turns out that the taxpayer responses are not real in nature? Thus, it is possible that becoming a tax haven may be as much based on the actions of the taxpayers than the action of the government.

Finally, a key difference for state and local governments, is that they often have access to alternative taxes that either explicitly or implicitly tax the *same* activity. In the case of corporate tax havens, multinationals are not generally subject to other taxes in the tax haven jurisdictions. While these jurisdictions may have taxes on goods, in so much as the economic activity in the tax haven is not real, these taxes would not be relevant for the corporation. At the state and local level, a zero-tax rate on one base may mean that the firm, individual, or goods are subject to taxes on other bases. For example, although the region of Madrid levies a zero-tax rate on wealth in Spain, high-wealth individuals located in the region still pay income taxes on labor and capital income. In the U.S., some states have income taxes but not sales taxes (and vice-versa). Even if the earnings and consumption bases are not both taxed, the two taxes are equivalent under some assumptions. The existence of fixed costs of administering a tax system may also result in states shifting away from a tax system toward relying on fees. In the case of Delaware discussed below, a substantial fraction of state revenue comes from corporate chartering fees, which can likely be raised with less administrative costs than a complex tax system and these fees are relevant for many international tax havens.

D. Ring-Fencing

Schjelderup et. al (2009) notes that a key difference between tax havens and intense tax competition is that many traditional corporate tax havens have ring-fenced legislation.[6] Under ring-fencing, there is one set of tax legislation over rates and regulations that pertain to locals that reside and run businesses locally and a separate set of favorable regulatory tax rules that apply to foreign investors and their firms. Generally, to use this favorable foreign investor legislation, a firm cannot have local activity, thus leading to the concept of shell companies whereby the owners of the firms cannot reside in the tax haven. In recent years, there has been substantial pressure to abolish ring-fencing, but some tax havens have become more elaborate and distinguishing this type of legislation.

State governments raise a substantial share of personal income tax revenue from non-residents (Agrawal and Tester 2023). At first glance, one might believe that state and local governments have different regulations and tax laws for the taxation of residents and nonresidents. However, states and localities do adopt preferential tax regimes for wealthy foreigners. For example, cantons in Switzerland may offer a special tax regime whereby wealthy foreigners are taxed on living expenses rather than true income and wealth. In order to quality for this expenditure-based taxation system, the taxpayer must be a non-citizen and muse not earn labor income within Switzerland, though they are free to earn it outside of the country (Baselgia and

[6] I exclude ring-fending from the definition because a "classic" zero-tax haven will typically simply not impose a corporate income tax on any firms. Thus, a domestic resident who incorporates a corporation also faces the same rate and other rules as do locally-incorporated affiliates of foreign MNCs. There are also limits to ring-fencing because domestic firms may seek to be bought by foreign firms (or incorporate abroad) to obtain the benefits intended for foreign firms.

Martinez 2023).[7] There are also preferential regimes that are granted to foreigners who earn income within the country (Schmidheiny and Slotwinski 2018).

Policymakers often seek to abolish preferential tax treatment of non-residents, as they are often viewed as a corrosive form of tax competition. However, Keen (2001) shows that such regimes may reduce tax competition by allowing jurisdictions to confine very aggressive tax competition to a particular—and hopefully small—portion of the tax base. Thus, preferential regimes at the state and local level may possibly have a policy purpose of potentially limiting tax competition.

Finally, while secrecy may be a problem for some international tax havens, again, one might believe this is not an issue for U.S. states. But, states and localities often are some of the most secret jurisdictions in the world (Sharman 2010). Company registries contain little information available to the public, especially if the company has no U.S. activity. Issues of secrecy are also critical for trusts.

E. What Is the Difference?

Perhaps one might then conclude that the distinction between tax competition and tax havens rests on the observation that a tax haven is a government that sets tax rates lower than would be predicted by a model of tax competition that accounts for multiple revenue sources, along with both avoidance, and real responses. But this is unsatisfying because presumably one could add constraints (on instruments, political economy forces) or sufficient differences in heterogeneity across jurisdictions that would yield the equilibrium tax rates set by standard tax havens. And it begs the question: how do tax havens set policy, if not optimally? Moreover, given government objectives are not observable, such a definition is not satisfying as it has little empirical relevance for classifying jurisdictions.

Given the line between tax havens and tax competition is blurry, does the distinction between the two matter? From a political and policy perspective, the labels certainly matter.

[7] The UK has a similar non-dom system, however, eligible taxpayers are allowed to work in the UK.

Politicians may use the term “tax haven” to score political points. For example, following Madrid’s decision to zero-rate its wealth tax, rival political in other regions of Spain branded it a “paraíso fiscal.” And in some ways, Madrid embraced the idea of having a very low-tax rate to attract high-wealth individuals as a way of raising revenue from other taxing instruments. In the U.S., such labels have also been used by politicians to classify zero income tax states, but are not common for zero sales tax states. This terminology has likely been adopted to try to force jurisdictions to set higher tax rates by labeling them in violation of the “social norms” of the federal system. In the Spanish context, because only one region levies a zero-tax rate on wealth, “social norms” are apparent, but this is less clear in the U.S. setting where many states levy zero income taxes.

But from an economic or welfare perspective, is there a distinction? As discussed in Agrawal, Hoyt and Wilson (2022), tax competition models can predict that taxes may be “too high” or “too low”. Despite popular conception, tax competition need not result in a race-to-the-bottom. And depending on the nature of the competition, tax competition may be “good” or “bad” from a welfare perspective. For example, if governments are Leviathan, tax competition may constrain the extractive forces of these governments. Then, society may want to facilitate competition between governments in the same way it generally wants to encourage competition among firms. Similarly, models of tax responses to tax havens also show that havens can either have parasitic (Slemrod and Wilson 2009) or beneficial effects (Johannesen 2010; Hong and Smart 2010) on the level of taxes and welfare. In the case of Slemrod and Wilson (2009), tax havens come with a resource cost because tax avoidance activities come with some cost to society. In contrast, in Johannesen (2010) tax havens are beneficial because they allow for low-tax (non-zero) jurisdictions to set higher tax rates by mitigating the competition that takes place between high-tax and low-tax nonhaven countries.

The latter of these two channels may not depend on whether the state or local government is actually a tax haven or simply becomes one by design (due to high fixed costs of adopting a tax or alternative revenue sources; or simply a result of its size disadvantage). And the former of these channels may also manifest regardless of the mechanism: resource costs from shifting behavior, whether real or not, will arise regardless of whether the jurisdiction is a tax haven so long as there is always a “lowest” tax jurisdiction resulting from tax competition. So qualitatively, models of tax competition and the interjurisdictional responses to tax havens share many parallels, although the precise equilibriums may differ quantitatively.

But the policy implications differ subtly depending on if the state or locality is deliberate tax haven or simply sets a very low tax rate. Consider the example discussed previously concerning fixed administrative costs of a state or local government adopting a new tax. In the model of Slemrod and Wilson (2010) abolishing some tax havens leaves all countries better off, implying aggregate gains in welfare. But if there are fixed costs of implementing a tax system, forcing a state or local government to adopt a new tax may result in large administrative costs that are suboptimal for those governments. As a result, those jurisdictions would be made worse off, and in the aggregate, if those fixed costs are sufficiently large, it is possible that world welfare could decline. The same logic would hold true for the passage of minimum taxes, which may impose new administration and compliance costs on jurisdictions that have no tax laws in place. But, these fixed costs would not generally arise in cases where jurisdictions are already setting positive rates, but where the rates have been competed to near zero. Nor would these fixed costs arise if the minimum tax were administered federally.

Further, a normative goal in the tax competition and coordination literature is that there potentially exist coordinated policies that can make all jurisdictions better off, though this possibility of Pareto improving reforms become more challenging when asymmetries become larger. In contrast, the literature on tax havens does not generally seek to make tax havens better off, but rather, views them as an external threat to nonhavens. As a result, coordination among nonhavens is designed to neutralize the tax havens, as with the Pillar 2 system.

Policy implications may also differ in the extent to which enforcement responses should be the dominant policy response. If tax havens predominantly drive evasion responses rather than real response, as in the wealth tax example discussed in the next section, then policymakers may seek to improve tax enforcement rather than design policies that force jurisdictions to alter tax rates. In particular, if mobility is entirely due to evasion or non-real avoidance, then a federal planner may find the marginal benefit of increasing enforcement as outweighing the costs of added enforcement. If mobility is real, resulting from tax competition for real resources, then policy makers may seek to place restrictions on the taxing instruments because enforcement will not reduce real moves or shifting of real economic activity across borders.

Regardless of the policy responses, even in a world with no zero or very low-tax options, tax rate differences will still exist and will likely lead to both real and non-real mobility responses. Thus, there is no presumption that policy should limit only one of these types of mobility depending on whether tax haven or tax competition forces are at work. Moreover, small places may see relatively large (to them) benefits even if it appears that they result indirectly from large non-real responses, as in the case of Norderfriedrichskoog discussed subsequently. These benefits may be accounted for when setting low-tax rates. If governments are optimizing the totality of these effects, then an open question is whether federal governments should be allowed to enact legislation to limit smaller jurisdictions from the ability to realize these benefits because they impose negative welfare consequences on other states in the federal system (as so to do diversity in tax rates among nonhaven countries). Rather than simply restricting the taxing powers of some jurisdictions via minimum tax rates, an alternative policy in a fiscal federation might be that larger high-tax jurisdictions could subsidize via intergovernmental grants (Koethenburger 2002) smaller-low tax places to levy higher tax rates. Such a policy might cover the fixed costs of operating the tax that might be prohibitively costly for small jurisdictions. Given the extent of intergovernmental transfers within many fiscal federations, might federal systems focus more on carrots rather than sticks?

More generally, solutions within fiscal federations need not be constrained to limiting the tax rates of the tax haven. In particular, mobility toward zero or low tax states can often be solved by inducing the low-tax state to adjust the tax *structure*, rather than the tax rate. For example, rather than tax income based on the residence principle and defining residence as a single state based on a threshold of days residing there, it might be apportioned according to the number of days in a state. With respect to the sales and use tax, better enforcement of cross-border purchases via the use tax is another way. Finally, the sourcing rules could be adjusted to better mitigate tax avoidance opportunities. These policy responses, while feasible within fiscal federations, might be harder to achieve at the international level, suggesting that federal governments have broader leeway at limiting the effects of low-tax states.

III. EMPIRICAL EVIDENCE ON THE EFFECT OF LOW STATE AND LOCAL RATES

A. Zero Taxes on Individuals

What is the empirical evidence on the effect of very low state and local tax rates? I first review the limited empirical evidence on the effect of (explicitly) zero tax rates and then turn to the empirical evidence on the effect of very low-tax rates. Unfortunately, the evidence on zero tax rates is limited, perhaps because the literature has focused on analyzing the totality of interjurisdictional tax differentials within federal systems.

Agrawal, Foremny, and Martínez-Toledano (2022) study the Spanish reintroduction of the wealth tax in 2011 after which regional governments exercised their authority to set marginal tax rates on wealth. Madrid was unique amongst the Spanish regions, electing to remain the sole region with a zero effective tax rate on wealth. The residential-based tax system means that regardless of where the wealth is located, a state government can tax all the individual's wealth if the taxpayer's primary domicile is in the region. Given all other regions levied positive tax rates, an individual with 3,000,000 Euros in taxable wealth could save up to approximately 10,000 Euro annually by moving. Opposition politicians in other regions branded Madrid a "paraíso fiscal."

The authors show that Madrid's stock of high-wealth taxpayers increased by about 10% from its zero-tax rate. This implies that the population of high wealth individuals in other regions fell by 2%. The paper raises important issues related to whether these "moves" are real relocations or simply a result of tax evasion. High wealth individuals are likely to have second homes in multiple regions of Spain. One possibility is that rather than move to Madrid, these taxpayers simply declared their second home in Madrid as the primary residence. This could be done by fraudulently declaring the number of days spent in Madrid to classify it as a primary residence or by altering the number of days actually spent there at the margin. As tracking time spent in a location may be challenging and state-level audits costly, it is possible that such evasion could be the dominant force.

To shed light on whether a move is real or not, the authors exploit a key difference: real moves change the regional amenities that an individual consumes, but a "paper move" does not. In the standard migration model, because utility depends tax differentials and on the individual valuation of amenities in a given region, there will always be some marginal individuals between every region pair. As a result, even small changes in tax differentials between non-haven regions should induce some mobility between the regions; not all observed tax mobility should be toward the lowest-tax region.

But, matters are different if tax evasion is the dominant mechanism. Differences in amenities across regions do not matter to the choice of which region to evade via. As a result, individuals will simply choose the region that affords them the largest tax benefits (tax savings). Then, changes in an individual's fiscal residence to the lowest tax region will generally be evasion if audit probabilities are sufficiently low, the any idiosyncratic cost of evading via the zero-tax region is sufficiently small, and the tax rates in non-haven regions are high enough. These conditions could reasonably hold in the Spanish setting above, especially if individuals are likely to already own a second home in Madrid, and thus do not need to incur fixed costs of buying a new house in Madrid, and simply avoid the tax by claiming to spend more time in the home than actually occurs. To shed light on this mechanism, Agrawal, Foremny, and Martínez-Toledano (2022) estimate pairwise regional mobility responses, finding that all significant tax-induced mobility is to the zero-tax region; there are no significant mobility changes between the non-zero (non-haven) regions. This provides suggestive evidence that evasion is a dominant mechanism and that mobility is driven by the lowest tax region. A key point is that it is not necessarily the existence of a zero tax rate and the same mechanisms would still follow if Madrid set a positive rate, but it was *lowest* within Spain.

There are parallels to Florida's lack of a personal income tax. Like Madrid, Florida is a state where many people are likely to have a second home and likely spend a significant amount of time in the state. The nice climate and the presence of retirees who spending significant time in the state for part of the year make it possible to easily declare Florida as the primary residence even if they technically are there for a bit less than fifty percent of the year. Thus, in addition to the zero-tax rate, the ability of taxpayers to take advantage (due to Florida's favorable climate attracting many part-time residents) of the zero rate is critical.[8] Put differently, if West Virginia

[8] As above, taxpayers may falsely alter the number of days spent in state, but may also change the number of days. If the change in the number of days is small, the real economic effects of it are likely negligible.

were the only place with a zero income tax rate, given the relative scarcity of secondary homes there, whether the mobility effects are real or not may be very different.

Rubolino (2022) uses the Italian decentralization of progressive income taxes to study mobility. He studies whether a residential relocation response is real or not by studying the differential mobility of workplace locations and residential locations. While he finds strong residential relocation responses, he finds limited job-related changes following decentralization. Such a result is suggestive because individuals may choose a given metropolitan area and work in the city center. Then, the residential tax response might be tax-driven suburbanization of households holding fixed employment locations—in other words, taxes may simply alter the commute length.

In the U.S., Cassidy, Dincecco and Troiano (2023) study the effect of a state adopting or not adopting an income tax. The staggered adoption of income taxes over the course of several decades allows the authors to study the mobility of the tax base. These numbers could then be compared to standard intensive margin responses of raising the tax rate (conditional on already having a tax in place). The authors find a small (but insignificant) decline in state populations following the early introductions of the income tax. However, states that adopted income taxes after WWII have large and significant declines.

Despite these studies finding economically meaningful effects on the location choices of individuals in the presence of zero tax rate jurisdictions, so too does the literature find mobility responses for high-income individuals in response to smaller tax rate differences between non-zero-taxing jurisdictions. Thus, it is not clear whether the zero tax rates amplify the aggregate mobility elasticities or not.

B. Zero Local Taxes on Businesses

In Germany, local governments can set business taxes, which contribute about 17% of municipal revenue. Local governments have the authority to adjust the statutory tax rates though the choice of local business tax multipliers. In 2003, the median multiplier was 330 percentage points, with less than one percent of municipalities setting a multiplier of 250 percentage points. A handful of towns also set a multiplier of zero. Von Schwerin and Buettner (2016) discuss the case Norderfriedrichskoog, a German municipality of population fifty, which set a multiplier of zero since the 1970s. Due to a loophole in the German tax code, a firm with a subsidiary there could route all its profits there; profits would then not be subject to local business taxes (12%-20% of profits). As a result of this opportunity, the small village became home to local subsidiaries of Lufthansa, Deutsche Bank and Unilever, among others. Apparently, these subsidiaries resulted in minimal costs of public services, but brought added tax revenue and a dramatic increase in economic activity due to farmers subletting houses for companies and office management companies opening to provide for the 500 foreign firms.

In 2004, the German government implemented a minimum local business tax rate. Von Schwerin and Buettner (2016) show that the passage of this minimum tax rate had important implications for tax competition. Municipalities with tax rates above the minimum raised their tax rates after the reform. This suggests that low-tax jurisdictions placed constraints on the tax setting behavior of other jurisdictions, especially those other low-tax but non-haven jurisdictions.

Boning, Slemrod and Ullmann (2022) reach a different conclusion. Using administrative microdata, they find that income shifting to haven municipalities occurred both before and after the minimum tax rate. They also do not find evidence that the minimum tax rate raised the tax rates of other municipalities or of neighboring municipalities. The results in this paper thus raise the following question: is it truly about setting a *zero* (or extremely low-tax rate) or is it about setting the *lowest* rate possible? If avoidance opportunities will always be conducted in a way that exploits the largest differential, this suggests that a minimum tax rate would have limited effects on the tax rates of other jurisdictions.

C. Taxes on Consumption

As noted previously, differences in consumption or commodity taxes across jurisdictions can result in the bunching of firms at borders (Rohlin, Rosenthal, and Ross 2014). But, these responses are arguably real. Perhaps more interesting is how the forces of digitalization may have affected the ability of state and local governments to raise sales tax revenue. Digitalization poses challenges for the tax authority because a remote vendor may be located outside of its jurisdiction’s borders (or in the case of digital services provides, may have little or no physical presence except where its servers are located). This raises questions over how and where that consumption should be taxed. In a fiscal federation, these issues also arise for cross-state shipments of online goods.

In the U.S., historically, retail firms could only be compelled to remit state and local sales taxes if they had a physical presence in the state from which they profit. As a result, many online transactions were effectively tax-free as governments found it too costly to enforce these taxes on individual consumers. As a result of the physical presence requirement for economic nexus, the Internet could effectively act as a zero-tax "location" facilitating tax avoidance opportunities by consumers. While not a jurisdiction, and thus not a player in the game, the legal loopholes created physical presence requirements for remitting taxes may place downward pressure on tax rates (Agrawal 2021). Recent reforms have switched to an economic presence standard for nexus, which facilitates taxation at destination. But, economic nexus often requires a threshold of sales to be triggered, raising the possibility that online vendors could split into many small firms to reduce tax liabilities. These issues are not just a curiosity of U.S. law, as the European Union has also struggled to enforce VAT on small international vendors located outside the Union (Fang 2022).

The commodity tax example raises the possibility that a state or a country's legal rules on remittance responsibilities can create "virtual" spaces that facilitate tax avoidance opportunities with respect to taxes. With the dramatic growth of digitalization, especially with respect to digital services (where is the "cloud" located?), but also teleworkers, raises the possibility of tax haven like forces arising from digital spaces, due to inadequacies in state tax laws. The commodity tax case is important for showing how sourcing rules that allocate the tax base across states can be designed in a way that limit mobility, possibly reducing the incentives to set lower tax rates.

D. Regulatory Policies

Finally, states may also adopt regulatory policies that result in them becoming a regulatory haven. In the next section, I will focus on corporate regulations, but this section briefly discusses other examples. Broadly speaking, states have the authority to regulate (or entirely ban) many activities such as casino gambling and marijuana or alcohol sales. Even beyond those activities, other regulatory decisions, such as becoming or not becoming a right-to-work state may influence the location of firm activities. Of course, many regulatory policies also pertain to identification required for opening bank accounts or incorporating, as well as disclosure rules from trusts.

Hansen, Miller, and Weber (2020) study the effect of legalizing recreational marijuana usage. Washington legalized recreational production, sale, and consumption of marijuana a few years before Oregon. Oregon's market opening reduced sales in Washington by 36%, suggesting that approximately 10% of the marijuana bought in the state were by nonresidents. Like tax competition, regulatory policy choices that result in tax exporting to nonresidents can create incentives to engage in a race to legalize.

But, states and localities differ dramatically in their regulatory policies and the regulatory policies of one state often do not match those in otherwise similar nearby states. One possibility is that the state that legalizes first will persist as a regulatory haven. As shown in Agrawal and Trandel (2019), all jurisdictions will legalize or all jurisdictions will ban the activity if it is sold in perfectly competitively markets at all locations. But, if firms have market power, and the order of legalization determines the location of firms, an early adopting jurisdiction can discourage nearby jurisdictions for legalizing. State dependence in the location of firms may prevent the ability of the later-moving jurisdiction from tax exporting. This result previews some of the advantages Delaware has: by mainlining a favorable regulatory environment for a long period of time, Delaware perhaps created a first-mover advantage that now allows the state to take advantage of the agglomeration of firms located there via substantial revenues from franchise taxes. Perhaps in the future, this environment with favorable courts and developed case law may allow them to raise taxes on those firms as these persistent corporate institutions may reduce the sensitivity of firms from fleeing the state even were taxes to rise in the state.

Finally, another critical policy concerns the regulation of pollutants. Given many pollutants have global externalities, if governments decide to become "pollution havens," the emissions from firms located there can cause significant negative externalities on the rest of the world. Given this is a large literature, I do not discuss these issues.

IV. STATE AND LOCAL CORPORATE TAX ISSUES

A. Corporate Law and Competition for Corporate Charters

Regulations and rules are important non-tax policies that may interact with a jurisdiction's fiscal system. And as noted, secrecy may be important for some tax havens that facilitate evasion. Sharman (2010) attempted to set up anonymous shell companies in different countries, finding the most success in U.S. states rather than tax havens. Many traditional tax havens abide by strong information rules, and secrecy is often less of a concern in the international corporate tax context. This points to regulatory policies being important mechanisms by which states can influence location decisions.

The issue of state competition for corporate chartering services has been discussed extensively in the legal literature and can give rise to a "race to the top" or a "race to the bottom." Within many federal systems, a firm must select a state of incorporation. In the U.S., this is the domicile of a corporation that is independent of physical presence and can be changed by shareholders. The state's corporate laws then determine shareholder-manager relationships, fiduciary duties of managers, the voting rights of shareholders, procedures for corporate takeovers, and procedures to follow when managers' decisions conflict with shareholders. A concern with competition for charters is that one single state, Delaware, has dominated all other states.

Bechuk and Cohen (2003) find that 60% of parent firms incorporate in Delaware; Dryeng, Lindsey and Thornock (2013) find 58% of subsidiaries incorporate there. Romano (1993) discusses the reasons why Delaware has long held this preferred status for corporations.[9] Delaware has gained a reputation to be responsive to corporate concerns, in part, because it relies heavily on franchise taxes in its state budget. Because franchise tax revenue is such a large share of its budget (almost 25%), this creates incentives to be favorable to corporations. Romano (1993,p38) writes "Delaware is thereby a hostage to its success in the chartering market." Moreover, given the state has been attractive to incorporations for decades, it has built up an entire body of case law and judicial expertise, and has a special court system that resolves corporate legal disputes without juries. And finally, the state constitution requires a supermajority of both houses to revise the corporate code, a provision that ensures the legal situation cannot easily get any worse than the time at which a corporation incorporates.

Barry and Hatfield (2012) study state-level competition for corporate charters to shed light on why corporate regulations differ across states. Different states have different regulations for

[9] Bebchuk, Cohen, and Ferrell (2002) also provide a survey and Roe (2003) discusses the prominence of Delaware.

takeover defenses, which might influence the decision of where to incorporate depending on whether regulations appeal to shareholders or managers. For example, one possible takeover defense is a "poison pill" and whether it can be executed depends on state law. A poison pill deters acquirers from purchasing stocks of the target company by making a takeover unprofitable. Formally, poison pills are triggered when there is an accumulation by an acquirer of shares above a threshold. The poison pill distributes free or discounted shares to all shareholders not involved in the acquisition. An alternative state-level regulation is a staggered board, which because the entire board is not elected in a single year, makes it more challenging for an acquirer to gain control of the board of directors and remove the poison pill.

Insiders, including managers and board members, possess information about the true value of the firm, which is unknown to shareholders and the acquiring firm. On the other hand, insiders receive some private benefit from preventing a takeover, such as the value of keeping their jobs, which could prevent takeovers that benefit shareholders. But with no takeover defenses, the acquirer simply offers to buy the firm at a price that provides almost no benefit to shareholders. Adding an effective staggered board may also serve as a commitment device for shareholders, although their welfare will not always increase. Insiders will be more likely to favor the effective staggered board, but not always. Thus, one cannot look at state regulations and infer with certainty whether they are designed to maximize the welfare of shareholders or managers.

Barry and Hatfield (2012) do not directly assume an objective function for state governments, but one could formulate a tax competition game in which state governments use regulations as strategies to induce corporations to locate within their borders.[10] Here, the optimal strategies would vary across firms, based on the degree to which location decisions are controlled by shareholders or insiders. But the strategies would also depend on the features of the firms that the state is trying to attract. For example, the model predicts that corporations with the highest expected synergies from being acquired are likely to have effective staggered boards. High-tech firms typically generate such synergies. Industries where managerial private benefits are low might also exhibit strong takeover defenses, as the interests of shareholders and insiders are then

[10] The remainder of this section and the next section draw on material in Agrawal, Hoyt and Wilson (2022).

more closely aligned. Given this, the extent to which state regulations restrict takeover defenses should vary across states, depending on the characteristics of the firms they seek to attract.

Barry and Hatfield (2012) also observe that the socially efficient regulatory policy is one that maximizes the number of takeovers, that is, one that involves no takeover defenses. The reason is that takeovers occur only when the acquisition increases the value of the firm, due to synergies, and it is only this value that matters for efficiency, not how the gains from an acquisition are distributed. But as Barry and Hatfield (2012) observe, the degree to which shareholders would oppose the elimination of takeover defenses would depend on how much their investments were diversified, allowing them to share in the efficiency gains. While centralizing corporate law may achieve these objectives, it would remove competitive pressure that may produce socially optimal laws when shareholders' interests align with society. And because nationalized corporate law may protect corporations from takeover attempts, regulatory competition may be preferred.

B. Formula Apportionment

Next, I turn to corporate tax rules concerning the allocation of profits in federal systems. Perhaps one reason tax havens are often referred to in the international, and not subnational context, is because federal systems often design tax rules that limit the ability of firms to artificially shift profits across states. Two common approaches to allocating profits across jurisdictions are formula apportionment or separate accounting. Separate accounting taxes profits earned within a jurisdiction's borders. To determine the profits within a jurisdiction, transfer prices must be used because the transactions within a firm are not arms-length. Under a system of transfer pricing, a multinational firm that transfers resources from a high-tax jurisdiction to a low-tax jurisdiction has incentives to lower the transfer price relative to what the arms-length price would be to shift taxable income from the high-tax country to the low-tax country. In a federal system, there are many multi-state firms, raising the possibility that transfer prices could be manipulated to shift profits across states. U.S. states thus use formula apportionment, with each state taxing only a fraction of a firm's total U.S. profits.

In the U.S., the fraction of taxable profits in a state is determined by a weighted average of the share of capital, payroll, and sales. In symbols, a firm's taxable profits in state i are:

$$\pi_i = \left(\alpha_K \frac{K_i}{K} + \alpha_W \frac{W_i}{W} + \alpha_S \frac{S_i}{S}\right)\pi$$

where π is total taxable profits, summed across states, α_j is the weight given to factor j in the apportionment formula; K_i, W_i and S_i are capital, payroll and sales located in state i, respectively; and K, W and S are the firm's total capital, payroll and sales, summed across states. The firm's tax payment to state i is then calculated by applying i's tax rate to π_i. States are taxing a fraction of a shared base, π, removing incentives to shift income from one state to another. But there are now incentives to manipulate the variables in the formula through decisions about where to place capital, payroll and sales, along with how to measure these factors.

While the apportionment formula can determine *how much* of a corporation's income can be taxed in the state, it does not determine whether the state will indeed tax it. To determine *whether* a corporation is taxable in the state hinges on nexus. Note that if a state has "separate filing" rules—whereby the profits of each subsidiary can be reported separately—then no income tax obligations are due to the state from the subsidiary unless the firm has nexus in the state.[11] Nexus may be based on an economic concept or on a physical presence standard. In the latter case, even if the formula above suggests some taxes are due there because there are (intangible) sales into the state, the lack of physical capital or labor there would preclude tax filing.

Examining the formula, it is apparent that formula apportionment means that raising the tax rate in the jurisdiction raises the marginal costs of capital, labor, and sales. As a result, formula apportionment turns the corporate income tax into a tax that has similarities to taxes on capital, labor and sales. This observation goes back to McClure (1980), who argued that the corporate income tax is implicitly a tax on those items used to apportion profits. Wildasin (2010) constructs a model of trade in intermediate goods, where apportionment based on sales is like a tariff on these goods, in which case a jurisdiction has an incentive to use it as a method of indirectly taxing the profits of firms partially owned by non-residents.

[11] As of 2017, 25 states used an alternative strategy of combined reporting, which requires multistate corporations to add all profits of all its subsidiaries regardless of their location. See Fox and Luna (2011). Nexus rules can also differ across states, as to whether they require a physical or economic component.

Note, however, that the marginal tax rates faced by firms may be negative for low-tax states. For example, if apportionment is based on capital, moving capital from a high-tax state to a low-tax state will lower the average rate at which capital is taxed, which could reduce taxes, depending on how π changes. Gordon and Wilson (1986) analyze this case and uncovered tax incentives for firm behavior that are distinct from those under separate accounting. For example, taxes may create incentives to sell goods in a state where the firm does not produce.

Turning to tax competition, is tax competition more intense under formula apportionment or under separate accounting? A key point is to realize that under formula apportionment, states tax a shared tax base π. In Gordon and Wilson (1986) and Sorensen (2004), if taxable profits equal before-tax profits plus a fixed share of capital due to less-than-full deductibility of capital costs, then increases in a state's tax rate will raise taxable income if it increases total tax payments. Then, the standard source-based tax on capital will be lower than the tax rate with an apportionment-based tax on capital. But with income shifting, Kind, Midelfart and Schjelderup (2005) show that separate accounting is preferred from a welfare perspective if trade costs are high. And Nielsen, Raimondos-Moller and Schjelderup (2010) show that a move from separate accounting to formula apportionment does not eliminate interjurisdictional externalities and may amplify them.[12]

It is also important to note that under a system of formula apportionment, states choose tax rates, but they also choose the apportionment weights in the tax competition game. And different states choose different weights. Under formula apportionment, as noted above, the corporate income tax becomes a tax on the apportionment factors. Standard tax competition analysis suggests that taxing perfectly internationally mobile capital would be passed on to immobile factors, such as labor. Thus, the apportionment weights should selected to be on the factor that is not mobile internationally. However, Runkel and Schjelderup (2011) show that is optimal for each jurisdiction to use positive weights on both mobile (capital/investment) and immobile (labor/land) apportionment factors to appropriate some of the rents of the multinational firm. In this way, the apportionment factor on capital acts as a way of taxing economic rents.

[12] More generally, the result in Gresik (2010) is consistent with favoring separate accounting when the transfer price problem is not severe.

C. The Special Case of Delaware

As noted above, a high share of parents and subsidiaries incorporate in Delaware. But, subsidiaries are not generally subject to the same legal challenges of the parents, including hostile takeovers and disclosure rules (Dryeng, Lindsey, and Thornock 2013). These authors thus test whether taxes play an additional role relative to Delaware's favorable legal setting.

As noted in Dryeng, Lindsey, and Thornock (2013), even though Delaware has a relatively high statutory tax rate, Delaware does not tax income generated by intangible assets held in a Delaware company. Thus, if those intangible assets generate income, it can reduce the state tax burden. Firms can establish a Passive Investment Company (PIC) in Delaware and transfer the assets to the PIC and then subsidiaries in other high-tax states make royalty payments (deductible in the high-tax state) to the Delaware subsidiary. But what about the apportionment rules above? To address this, the company must also have operations in other states that make this strategy attractive. Under separate filing, some states only require subsidiaries that establish a physical presence in the state to pay corporate income taxes there. Thus, a Delaware PIC has no income tax filing requirements in states with physical nexus rules.

To study whether these tax advantages influence the location of subsidiaries in Delaware, Dryeng, Lindsey, and Thornock (2013), predict whether the subsidiary location is in Delaware or not as a function of observable characteristics including tax factors. They also predict whether incorporating a subsidiary in Delaware lowers state effective tax rates. The authors find that tax factors matter for location decisions: firms are more likely to locate a subsidiary in Delaware if they own intangible assets and operate in states that have separate filing with a strict physical presence standard; and the probability of location is increasing in the average statutory tax rate faced by all the firm's subsidiaries. Finally, the authors show that firms with these subsidiaries in Delaware have effective tax rates that are between 0.7 and 1.1 percentage points lower than other firms, reducing state income tax payments by 15%-24%. The authors then show that these firms increase net income by over 1%. While obtaining causal estimates in this setting is challenging, these results indicate that Delaware may act as both a regulatory and tax haven, even despite having a relatively high statutory corporate rate.

D. Recent Trends

Suarez Serrato and Zidar (2018) show that the weight placed on sales in the apportionment formula has risen dramatically. This trend is understandable, given that weighting capital and payroll effectively tax production activities within a state, thereby discouraging investment and employment there. But, sales in the formula shifts the tax toward a destination-based tax, which coupled with many states requiring an economic nexus standard, results in subnational corporate income taxes having properties similar to consumption taxes (Fox, Murray, and Luna 2005). The Delaware example above also suggests that being a tax haven need not be specifically linked to the statutory tax rate, but may occur via special categories in the tax code. Favorable state tax credits for investment and R&D could be used to lure formal activity into a state (Chirinko and Wilson 2008; Wilson 2009). In addition to targeting a specific type of assets, states may engage in subsidy competition by targeting specific large firms and offering major tax breaks to locate in the jurisdiction (Slattery 2022). These specific provisions raise challenging questions, as a state can then be relatively high-tax for some firms but have effectively low-tax rates for other firms. The interaction of bidding and tax competition is understudied in the literature.

V. CONCLUSIONS

The distinction between tax havens and intense tax competition is nuanced. This article highlights the challenges of defining tax havens, noting that these challenges become even more apparent in the subnational setting. Tax havens at the state and local level should involve a deliberate attempt not explained by revenue needs or other revenue sources to attract the tax base, usually in a way that results in non-real rather than real responses. But tax competition and tax havens may be similar concepts in the subnational setting.

The empirical literature indicates that tax havens and tax competition can have similar economic effects, as mobility shifts—in real or non-real terms—tax bases to low-tax jurisdictions. But the policy implications of the two mechanisms in the subnational setting may differ slightly. In particular, using the example of fixed administrative costs or alternatively high revenue sources from other taxes, it may be optimal for a state or locality not to levy a particular tax and it may do so with no intent to attract activity. But, then a minimum tax rate on that jurisdiction may result in it incurring an administrative costs and, if that cost is significant, may not be socially desirable.

However, the form of the minimum tax is critical. Imposing a federal minimum tax (where income untaxed by a local jurisdiction is taxed at the federal level) would not necessarily require a local jurisdiction to incur administrative costs (as the tax would be administered by the federal government). Then, a minimum tax might induce the previously zero-tax local jurisdiction to levy a tax to get essentially nondistortionary revenue, as envisaged in the Pillar 2 system, but it would not be forced to do so. Thus, while fiscal federations have many possible mechanisms to limit tax competition, limiting the ability to choose the tax mix has important implications for administrative and compliance costs and the traditional advantages we see in fiscal decentralization. As alternatives to restricting the range of tax rates that can be chosen, I have argued that fiscal federations might instead rely on other types of policy responses: defining sourcing rules that limit mobility, increasing enforcement, or having high-tax jurisdictions finance intergovernmental grants that encourage low-tax jurisdictions to raise their tax rate.

While the literature has focused on international tax havens, more focus on state and local governments taxing decisions along the extensive margin (decision to tax a base) versus the intensive margin (decision of how much to tax) are warranted. While the literature has focused on attempting to explain the choice of tax rates, it has generally ignored the choice of what to tax and the decision of whether to levy a tax at all. More studies need to analyze the interaction of lax regulatory policies at the state level with the taxes applied within the state. Thus, regardless of whether states or localities are tax havens, there is much value to studying the decision to adopt or not adopt certain taxes and the diversity of these choices across subnational jurisdictions.

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