

# CORPORATE INVERSIONS AND THE UNBUNDLING OF REGULATORY COMPETITION

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March 2015  
(First Version, September 2014)

**ABSTRACT:** *Several US public companies have recently executed “tax inversions” – acquisitions that move a corporation’s residency abroad while maintaining its listing in domestic securities markets. When appropriately structured, inversions replace American with foreign tax treatment of extraterritorial earnings, often at far lower effective rates. Regulators and politicians have decried the “inversionitis” pandemic, with many championing radical tax reforms. This paper questions the prudence of such extreme responses, both on practical and on conceptual grounds. Practically, I argue that inversions are simply not a viable strategy for many firms, and thus the ongoing wave may abate naturally (or with comparatively modest tax reforms). Conceptually, I assess the inversion trend through the lens of regulatory competition theory, in which jurisdictions compete not only in tax policy, but also along other dimensions, such as the quality of their company law. I argue that just as US companies have a strong aversion to high tax rates, they have an affinity for robust corporate governance rules, a traditional strength of American corporate law. This affinity has historically given the US sufficient market power to impose tax premiums with little fear of chasing off incorporations, because US law has traditionally bundled tax residency and state corporate law into a conjoined regulatory package. To the extent this market power remains durable, I show that radical tax overhauls would be unhelpful (and even counterproductive). An analogously blameworthy culprit for inversionitis, I argue, can be found in an inconspicuous source: Securities Law. Over the last fifteen years, federal law has progressively suffused national securities regulations with mandates relating to internal corporate governance matters – a traditional domain of state law. Those federal mandates, in turn, have displaced and/or preempted state law as a primary source of governance regulation for US-traded issuers. And, because US securities law applies to all listed issuers (regardless of tax residence), this displacement has gradually “unbundled” domestic tax law from corporate governance, eroding the US’s market power in regulatory competition. An effective elixir for this erosion, then, may also lie in securities regulation. I propose two alternative reform paths: either (a) domestic exchanges should charge listed foreign issuers for their consumption of federal corporate governance policies; or (b) federal law should cede corporate governance back to the states by rolling back many of the governance mandates promulgated over the last fifteen years.*

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*Even as corporate profits are as high as ever, a small but growing group of big corporations are fleeing the country to get out of paying taxes. They're keeping most of their business inside the United States, but they're basically renouncing their citizenship and declaring that they're based somewhere else, just to avoid paying their fair share. ...*

*[W]hen some companies cherry-pick their taxes, it damages the country's finances. It adds to the deficit. It makes it harder to invest in the things that will keep America strong, and it sticks you with the tab for what they stash offshore. Right now, a loophole in our tax laws makes this totally legal – and I think that's totally wrong. You don't get to pick which rules you play by, or which tax rate you pay, and neither should these companies. [S]topping companies from renouncing their citizenship just to get out of paying their fair share of taxes is something that cannot wait.*

Barak Obama, President of the United States<sup>2</sup>

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<sup>2</sup> The White House, Weekly Presidential Address: Closing Corporate Tax Loopholes. Available for download at <http://www.whitehouse.gov/the-press-office/2014/07/26/weekly-address-closing-corporate-tax-loopholes>.

## I. Introduction

Several prominent public corporations have recently embraced a noteworthy (and newsworthy) type of transaction known as a “tax inversion.” In a typical inversion, a US multinational corporation (MNC) merges with an operating foreign company. The entity that ultimately emerges from this transactional cocoon is invariably incorporated abroad, yet typically remains listed in domestic securities markets (under the erstwhile US issuer’s name). When structured to satisfy applicable tax requirements, corporate inversions permit domestic MNCs eventually to replace US tax treatment with foreign tax treatment of their extraterritorial earnings – almost always at far lower effective rates (sometimes even zero). Most regulators and politicians have reacted to the inversion invasion with alarm and indignation, no doubt fearing that the trend is but a harbinger of an immense offshore exodus by US multinationals. This reaction, in turn, has catalyzed myriad calls for tax reform from a variety of quarters, ranging from targeted tightening the tax eligibility criteria,<sup>3</sup> to moving the US to a territorial tax system,<sup>4</sup> to declaring (yet another) tax “holiday” for corporate repatriations,<sup>5</sup> to reducing significantly (possibly to 0%) American corporate tax rates.<sup>6</sup> Like many debates in tax policy, there remains little consensus about what to do (or whether to do anything at all).

In this article, I analyze the current inversion wave (and reactions to it) from both practical and theoretical perspectives. From a practical perspective, I argue that while the inversion invasion is certainly a cause for concern,<sup>7</sup> aspiring inverters already face several constraints that will likely decelerate the trend naturally, without significant regulatory intervention. For example, tax inversions are invariably dilutive and usually taxable to the inverter’s US shareholders, which can augur resistance to the deals. They virtually require “strategic” (as opposed to financial) mergers between comparably sized companies, making for increasingly slim pickings when searching for a dancing partner, and a danger of overpaying simply to meet the comparable size requirements. They typically involve the merging of differing accounting protocols, which can prove extremely cumbersome. They involve potential regulatory risk from competition authorities, foreign-direct-investment boards and takeover panels (not to mention from tax authorities themselves, who have altered the rules on inversions in ways that impair pending deals). They frequently provide only partial relief from extra-territorial application of US taxes, especially for well-established US multinationals. And finally, inversions arguably introduce material downstream legal risk, since they move the locus of corporate internal affairs out of familiar jurisprudential terrain and into the domain of a foreign jurisdiction whose law is—by comparison—recondite and unfamiliar.

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<sup>3</sup> The Stop Corporate Inversions Act of 2014, S.2360 (113th Congress 2013-2014; Sen. Levin, Carl [D-MI] (Introduced 05/20/2014)).

<sup>4</sup> Desai, Mihir A., “A Better Way to Tax U.S. Businesses,” *Harvard Business Review*. Jul.-Aug. 2012; James Politi, “Think-tank urges US to switch to ‘territorial’ tax system,” *Financial Times* (August 6, 2013); Adam Chodorow, “Should Martians Pay U.S. Taxes? What the IRS might have to say about American colonists on the Red Planet,” *Slate* (Jan 5, 2015).

<sup>5</sup> James Hohmann, “Rand Paul seeks corporate tax deal with Obama,” *Politico* (Jan. 20, 2015) (available at <http://www.politico.com/story/2015/01/rand-paul-corporate-tax-deal-obama-114413.html>).

<sup>6</sup> E.g., N. Gregory Mankiw, “One Way to Fix the Corporate Tax: Repeal It.” *New York Times*, Aug. 23, 2014 (advocating the full-scale repeal of the US tax on corporate earnings).

<sup>7</sup> See, e.g., Johannes Voget, *Relocation of headquarters and international taxation*, *J.Pub. Econ.* 95: 1067–1081 (2011).

Moving beyond these practical considerations, I also consider the inversion wave through a theoretical lens, drawing insights from regulatory competition theories in public finance. Specifically, I advance the notion that regulatory competition among jurisdictions can play out *not only* out through tax policies, but also simultaneously through other important non-tax channels, such as corporate law and governance rules. Applying this framework, I show that a strong domestic corporate governance regime can provide a plausible buffer against a mass incorporation exodus: although US multinationals clearly dislike high tax rates, they have traditionally valued the strength of US corporate governance protocols, particularly those in Delaware. And, since US tax policy explicitly ties tax residence to the state of incorporation, domestic tax authorities have enjoyed market power in keeping rates comparatively high while attracting and retaining domestic incorporations. In other words, the US has for a long time remained somewhat insulated from ruinous tax competition because tax residency was “bundled” with corporate law in a unitary regulatory package. Viewed from this perspective, the most radical tax reform proposals currently being championed seem unnecessary at least, and may even be destructive.

At the same time, the recent pace of inversion activity plausibly suggests that America’s traditional market power in regulatory competition has begun to slip. Although there are likely many contributing causes for this slippage, I argue that a seemingly inconspicuous institution has played an under-acknowledged role: Securities Law. During the last fifteen years, a series of significant regulatory reforms — such as Sarbanes-Oxley Act of 2002<sup>8</sup> and the Dodd-Frank Act of 2010<sup>9</sup> — have suffused US securities regulations with an unprecedented array of corporate governance mandates, ranging from board independence requirements to compensation reforms to internal financial controls to proxy access and many others. Historically, state law has served as the dominant arbiter of corporate governance. Federal law’s creeping displacement of state law’s role has consequently “unbundled” domestic tax law from domestic corporate governance regulation, since most US securities regulations apply to *all* listed companies, regardless of their tax residence.<sup>10</sup> Regardless of whether one believes recent federal governance mandates have been value enhancing or value destroying, I argue that this has effectively (if unwittingly) undermined the US’s ability to withstand tax competition from abroad.

If securities law helped dig this hole, then securities law may provide the needed reform tools to help refill it. My analysis suggests that it does, and that we should consider altering the securities law landscape in one of two ways: either (a) US exchanges should charge listed issuers (regardless of residence) for their consumption of federal corporate governance law, granting exemptions to US-tax-paying issuers; or (b) federal law should cede corporate governance back to the states by rolling back the governance mandates in securities laws. Which of these alternatives (or combination thereof) is most attractive turns on several factors, including practical implementation constraints, the value (if any) created by recent federal governance mandates, and the difficulty of coordinating governmental actors at the state and federal level.

Moreover, to the extent my unbundling hypothesis is valid, it suggests that tax law reforms are unlikely to play the sole role in the policy response to *inversionitis*. Although some modest tax reforms

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<sup>8</sup> Pub.L. 107–204, 116 Stat. 745, enacted July 30, 2002.

<sup>9</sup> Pub.L. 111–203, H.R. 4173; enacted July 21, 2010.

<sup>10</sup> While certain US-traded foreign companies can obtain “Foreign Private Issuer” (FPI) status—exempting them from various US securities law mandates—the structure of most US outbound makes FPI status an unrealistic option for the surviving entity. See TAN \_\_-\_\_, *infra*.

may be warranted (e.g., measured reductions in nominal tax rates), the most radical tax reform proposals currently on the table (such as moving to a territorial tax system or eliminating US corporate income taxes altogether) are unlikely to help, and could well prove counterproductive. Not only are such radical reforms almost certain to cost the US Treasury sizable tax revenues, but they respond to the unbundling phenomenon not by re-bundling tax and governance, but rather by severing the link completely. A plausible long-term effect of such radical reform strategies is that the variety and quality of corporate governance regimes worldwide will atrophy – an outcome that is as undesirable for the global economy as it is for the US.

Three caveats deserve explicit attention before proceeding. First, this is by no means the lone article to note the simultaneous operation of tax and corporate law within a setting of international regulatory competition.<sup>11</sup> Although most prior contributions compare tax competition and corporate chartering competition in relative isolation, a handful also explicitly consider their mutual interaction. Notable among them is an article by Mitchell Kane and Edward Rock, who observe that the marriage of tax residency rules with corporate law in regulatory competition can have distortive effects, inducing corporations to make inferior jurisdictional choices when incorporating in order to reduce tax liability. Concluding that such distortions undermine a competitive chartering market, they propose “severing” tax residence rules from corporate law regimes, hinging the former on the locus of firms’ real economic activity and the latter on the place of incorporation.<sup>12</sup> Although I commence from a similar motivation as do Kane and Rock, my analysis departs from theirs in several ways. They do not, for example, consider how the steady encroachment of securities law has altered the tax/governance competitive landscape. More significantly, my analysis suggests that regulatory competitive forces actually push in the opposite direction from the Kane/Rock proposal. In other words, even if differential tax levies “distort” incorporation choices, the bundling of corporate governance and tax regimes can make chartering competition *more* (not less) robust, affording jurisdictions a means by which to appropriate some of the social value created by their investments in legal/regulatory infrastructure – incentivizing them in the process to differentiate their governance/tax offerings, thereby enriching the portfolio of choices available to companies and adding to overall economic welfare.<sup>13</sup>

Second, as noted above this paper uses a regulatory competition framework to analyze jurisdictional competition when tax and corporate law operate in combination. That framework allows for the possibility that such competition can motivate at least some jurisdictions to “race to the top” by

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<sup>11</sup> See, e.g., Mitchell Kane & Edward B. Rock, “Corporate Taxation and International Charter Competition,” 106 Mich. L. Rev. 1229 (2008); William W. Bratton & Joseph A. McCahery, “Tax Coordination and Tax Competition in the European Union: Evaluating the code of Conduct on Business Taxation,” 38 Common Mkt. L. Rev. 677 (2001); Wolfgang Schön, “Playing Different Games? Regulatory Competition in Tax and Company Law Compared,” 42 Common Mkt. L. Rev. 331, 359–60 (2005); Joel P. Trachtman, “International Regulatory Competition, Externalization, and Jurisdiction,” 34 Harv. Int’l L.J. 47 (1993); Jens Dammann, “A New Approach to Corporate Choice of Law,” 38 Vand. J. Transnat’l L. 51, 77–79 (2005).

<sup>12</sup> Kane & Rock, *supra* at 1232, 1283.

<sup>13</sup> It is worth observing that in *any* market (incorporation markets included), differential prices technically “distort” consumer choice. Many consumers, for instance, purchase Chevrolets even though they would prefer Bentleys (but for the price difference). Such price rationing can be perfectly consistent with robust competition. More to the point, my analysis suggests that even when competing jurisdictions’ marginal cost of corporate law provision is approximately zero (as is plausibly the case here), differential prices—and the distortions they induce—may still be desirable when such prices enable providers to capture their quasi-fixed investments in regulatory quality.

installing and maintaining governance regimes that increase firm value and attract incorporations. While some version of this view is common within the academic literature,<sup>14</sup> others are more pessimistic about the merits of jurisdictional competition in corporate law, arguing that because managers steer incorporation (and re-incorporation) decisions, competition will tend to “race to the bottom,” catering to managerial preferences, not overall company value (or even share value).<sup>15</sup> Still others have expressed ambivalence about whether either extreme account tends to prevail categorically.<sup>16</sup> The analytical framework developed below is broad enough to allow for any of these possibilities, including settings where (say) agency costs dominate incorporation choices for some firms, such that jurisdictions use their bundled taxing authority to extract a portion of the *managerial* value they create. Indeed, at its most general level, my analysis presumes a type of hybrid setting where some companies are attracted to corporate governance regimes that maximize overall company value, while others prefer systems that cosset managerial interests.<sup>17</sup>

Finally, my analysis generally presumes that jurisdictions set policies non-cooperatively, so as to serve their individual jurisdictional self-interests. While such an approach is a serviceable description of the status quo ante,<sup>18</sup> it downplays the possibility of *cooperative* accords struck between otherwise competing jurisdictions that would effectively neutralize – or at least dampen – the oppositional landscape (e.g., international accords among, say, OECD countries that set uniform policies on tax rates or profit shifting).<sup>19</sup> Such cooperative approaches could have desirable characteristics (at least in some circumstances), and they are certainly worth considering. It nevertheless remains an open question whether such accords are practically attainable in the short term and durable over the medium to long term. In any event, my analysis is better viewed as assessing an appropriate response for the US in absence of (or as a backstop to) such international accords.

The remainder of this article proceeds as follows: Section II provides a high-level overview of how the corporate tax system in the United States interacts with the structuring of multinational corporations (MNCs) (incorporated in the US and abroad). Of particular interest here are the creative (yet fragile) ways that MNCs utilize special ownership structures and inter-company transactions – short of an

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<sup>14</sup> See, e.g., Roberta Romano, “Law as a Product: Some Pieces of the Incorporation Puzzle,” 1 J.L. Econ. & Org. 225, 280–81 (1985); Ralph K. Winter, Jr., State Law, Shareholder Protection, and the Theory of the Corporation, 6 J. Legal Stud. 251 (1977); Kane & Rock, *supra* note \_\_\_\_.

<sup>15</sup> E.g., Lucian Arye Bebchuk, “Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law,” 105 Harv. L. Rev. 1435, 1441 (1992).

<sup>16</sup> See Gillian K. Hadfield and Eric L. Talley, “On Public versus Private Provision of Corporate Law,” 22 J. Law Econ. & Org. 414-41 (2006).

<sup>17</sup> Specifically, the framework I develop below presumes firms to be heterogeneous in how they value governance, with some being more attracted than others to governance regimes that increase overall company value; this heterogeneity plausibly reflects varying degrees of agency costs across firms. Consequently, jurisdictions within this setting also tend to behave heterogeneously, differentiating their regulatory offerings from one another, thereby making the “race” (to the extent one exists) more multi-faceted than either extreme account allows. That said, for those jurisdictions catering to firms dominated by agency costs, the governance systems that emerge may not be socially desirable in a larger sense.

<sup>18</sup> Eric Toder & Alan D. Viard, Major Surgery Needed: A Call for Structural Reform of the U.S. Corporate Income Tax” (Brookings – AEI working paper, 2014).

<sup>19</sup> See, OECD (2013). “Action Plan on Base Erosion and Profit Shifting.” ([www.oecd.org/ctp/BEPSActionPlan.pdf](http://www.oecd.org/ctp/BEPSActionPlan.pdf)); Dharmapala, Dhammika, “Base Erosion and Profit Shifting: A Simple Conceptual Framework” (September 25, 2014) (available at: <http://ssrn.com/abstract=2497770>).

inversion – to minimize and/or defer tax liabilities. While such strategies can be effective, they can also impose risks and costs. In Section III, I add inversion calculus to the mix, documenting the potential advantages such transactions can have over more traditional tax management techniques. At the same time, particularly in light of various anti-inversion reforms of the last two decades, the advantages of inversions simply do not translate to all settings. The section closes by describing how securities law has, over the last fifteen years, incrementally displaced and preempted state corporate law through a series of federal corporate governance mandates at the federal level. Notably, these mandates apply to all public companies, whether they are incorporated / taxed in the US or not. Section IV then turns to my conceptual arguments, presenting and analyzing a simple, game-theoretic framework for analyzing multi-attribute regulatory competition in tax and corporate governance offerings. Here I demonstrate how a leader in providing strong corporate law and governance rules may be able to withstand even substantial international tax rate competition without being drawn into a ruinous tit-for-tat death spiral in tax revenues. Significantly, however, my analytic framework exposes a key necessary condition for the US to enjoy such competitive insulation: that it must be able to bundle tax and non-tax regulatory attributes into a single, conjoined regulatory package. I show that many of the most radical reform efforts recently proposed lose sight of this point, and would ultimately have the effect of unbundling tax and governance even further. Myopic attention to tax competition – with little or no attention to its interaction with other regulatory dimensions, is both short sighted and likely to fail. Section V then applies the insights of this framework, considering the most plausible reform approaches from a securities-law perspective. Section VI concludes.<sup>20</sup>

## *II. Federal Taxation of Multinational Entities: A High-Level Primer*

In order to appreciate the role that inversion transactions play in the larger landscape of multinational corporate structuring – as well as to assess the prospects of success for proposed reforms – it is first necessary to understand some of the basic contours of US tax law, specifically as applied to US and foreign multinationals. These basic characteristics animate the motives for firms to engage in tax minimization and avoidance strategies – ones that include (but are hardly limited to) inversions. It is important to stress that this Section endeavors to provide this overview at a high level, focusing on the details that are most central to the enterprise in this paper. I do not endeavor to provide a comprehensive roadmap to all relevant dimensions of international corporate tax.<sup>21</sup>

Although all international tax regimes necessarily share some similarities, a great part of unlocking the inversions puzzle from the US perspective hinges on differences – and particularly those differences that distinguish the domestic US approach from those of most other jurisdictions. In relation to such comparator jurisdictions, the American regime is relatively unique in its combination of three central traits: (a) its relatively high nominal tax rates, (b) its incorporation-based tax residency rules, and (c) its worldwide (rather than territorial) reach. These three traits conspire to create significant returns for effective tax avoidance strategies. I discuss each of these considerations (and in turn their joint consequences) below.

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<sup>20</sup> A Technical Appendix following Section VI provides some of the more general arguments underlying the regulatory competition model developed in the text.

<sup>21</sup> Those seeking more in-depth overviews should consult detailed corporate tax treatises, such as Martin D. Ginsburg, Jack S. Levin, Donald E. Rocard, “Mergers, Acquisitions, and Buyouts,” February 2012.

*(a) Nominal Tax Rates*

Consider first the nominal corporate tax rates imposed by the US. For ordinary “C” corporations, the United States imposes entity-level taxation on the earnings a corporation generates prior to distributions to shareholder (such as through dividends or share repurchases). The imposition of entity-level tax does itself not make the US unique. What does, however, is the significant heft in the marginal rates that US corporations must pay on such earnings. Although federal corporate income tax rates vary according to pre-tax corporate earnings from a low of fifteen percent to a high of thirty-nine percent, the dominant tax bracket for most moderate-sized (or larger) corporations is 35 percent, which takes effect once the corporation’s taxable net earnings exceed \$18.3 million per year.<sup>22</sup> This figure, moreover, excludes state corporate tax, which itself ranges between zero and nine percent. All told, most US corporations of any material size face a marginal “headline” tax rate (state and federal combined) hovering around 40 percent.

Nominal US corporate tax rates largely swamp those of competing national jurisdictions. As Figure 1 illustrates, the combined headline rate in the United States far exceeds the rate in a host of other national jurisdictions, a list that significantly includes the venues for several recent inversion transactions (such as Ireland at 12.5%, the UK at 21% and falling, and Canada at 26.5%).<sup>23</sup> And, unlike individual taxation, where income may be taxed at different rates depending on its source (e.g., ordinary income versus short-term dividends versus capital gains and long-term dividends), corporate income tax rates generally apply to all sources of income. Although a variety of accounting and financing tools exist to reduce US corporation’s *effective* taxes well below the headline rate, US corporations still bear a significant tax bill for any remaining net taxable earnings they recognize.

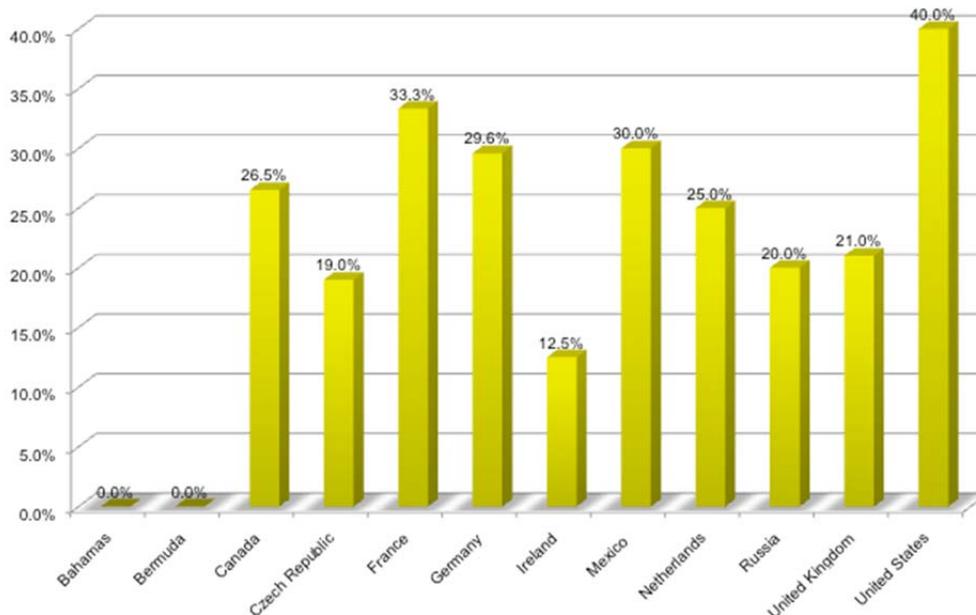


Figure 1: Average Headline Marginal Rate (Selected Countries)

<sup>22</sup> See Internal Revenue Manual - 3.1216 Corporate Income Tax Rates; [http://www.irs.gov/irm/part3/irm\\_03-012-016r-cont02.html#d0e11476](http://www.irs.gov/irm/part3/irm_03-012-016r-cont02.html#d0e11476)

<sup>23</sup> See KPMG, Tax Rates, <http://www.kpmg.com/global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table.aspx>

*(b) Residency Rules*

In addition to its high rates, the United States explicitly links a corporation's "residency" for tax purposes to its jurisdiction of incorporation.<sup>24</sup> Delaware incorporated entities, for instance, are treated as United States residents for tax purposes, even if they have very little operational or managerial activity in Delaware. Here the US appears to be in the minority, although some other countries also mandate an "incorporation" rule to determine tax residency as well.<sup>25</sup> Several other variations are more common, such as pegging a corporation's tax residency on the location of its corporate "headquarters." This latter inquiry tends to focus on where "central management and control" rest, which often coincides with the place the board generally meets and (possibly) where central management's offices are located.<sup>26</sup> In yet other jurisdictions hybrid approaches prevail, where corporations can be deemed residents if either they are incorporated there or their headquarters are located there.<sup>27</sup>

*(c) Worldwide Income*

Finally, the US tax rates have historically applied to a corporation's *worldwide* income, not just that portion that is generated within domestic borders. Hence, it matters not whether most of the profits of a US corporation are generated from its activities here or abroad — the US tax code will eventually attempt to reach and tax all its earnings (subject to some caveats, discussed below).<sup>28</sup> Although the US is not unique in taxing worldwide corporate income, it is in a distinct minority: Most other states in the developed world utilize a "territorial" approach to taxing MNCs, in which they tax only the portion of the corporation's net income that was generated within the relevant tax jurisdiction.<sup>29</sup>

The heterogeneity of worldwide and territorial tax rules (as well as residency tests) has necessitated over the years several compromises within many jurisdictions' codes. For example, for countries using a territorial tax approach, it is critical to determine exactly which revenues and costs are generated within the territory. Elaborate rules that endeavor to prevent "base shifting" to low-tax locations has attracted (and continues to attract) significant attention among reformers. Although the worldwide income taxation approach in the US does not have to contend as centrally with base shifting problems, it necessarily confronts the fact that controlled foreign companies ("CFCs") may themselves already be subject to a tax code in their foreign domicile, paying taxes on that basis. Accordingly, the US tax code (as well as other worldwide tax regimes) grants a credit for foreign taxes already paid, and the foreign operations are liable only to the extent that tax liability under US law would exceed that amount. (Given the high marginal rates in the US – see above – that is frequently the case.) Second, income

<sup>24</sup> 26 USC § 11.

<sup>25</sup> Marples & Gravelle, *Corporate Expatriation, Inversions, and Mergers: Tax Issues*, Congressional Research Service (May 27, 2014).

<sup>26</sup> Greg N. Gregoriou, *International Taxation Handbook: Policy, Practice, Standards, and Regulation* (2007)

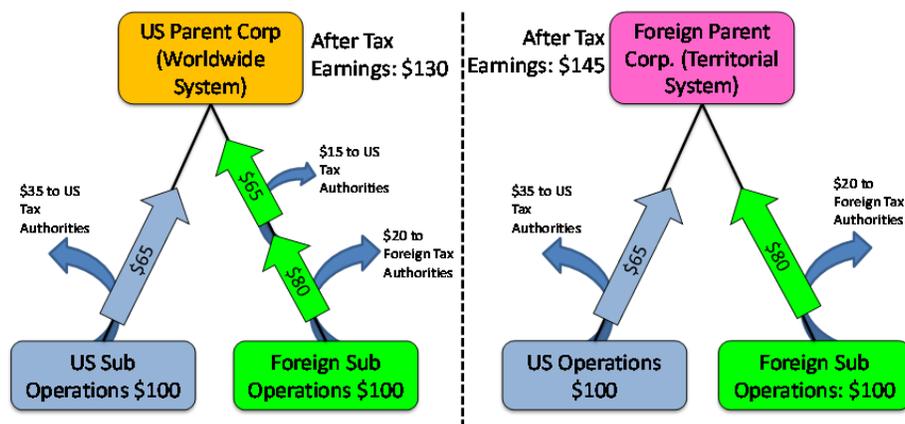
<sup>27</sup> *Id.* The UK and Ireland, while traditionally embracing a hybrid rule, are trending prospectively towards a place of incorporation rule. See *infra* note \_\_\_ and accompanying text.

<sup>28</sup> IRC § 951 subpart F (discussed *infra* at TAN \_\_\_ - \_\_\_)

<sup>29</sup> In addition to the US, the only other OECD countries that utilize a worldwide tax regime are Greece, Ireland, South Korea, and Mexico. It is worth noting that most territorial systems do not fully exempt 100% of repatriated foreign earnings from domestic taxation (usually exempting around 95%), and thus the distinction between territorial and worldwide taxation systems is less one of kind than of degree of exemption. Moreover, when a country's headline tax rate is relatively low (such as Ireland's at 12.5%), worldwide scope ceases to be important, since such systems routinely grant an offset for foreign taxes paid (at presumably higher headline rates).

recognition rules within the US tax code tend to permit American multinationals to defer US recognition of earnings in their CFCs, so long as those earnings remain within the foreign subsidiary's coffers and not "repatriated" to the US parent (through, e.g., a dividend or share repurchase).

The intersection of high marginal tax rates, residency rules and the global reach of US tax law – when juxtaposed to several foreign jurisdictions — makes it clear why US tax residence is widely regarded as unfavorable to MNCs. To see this more concretely, consider Figure 2, which considers two hypothetical multinational parents, the first (on the left) incorporated in the United States, and the second (on the right) incorporated abroad. Assume that the applicable corporate tax rate in the US is 35 percent (applied on a worldwide basis), compared to 20 percent in the foreign jurisdiction (which is applied only territorially). Each company has two multinational subsidiaries – one doing business in the US and the other doing business in the foreign jurisdiction – and each subsidiary generates \$100 in pre-tax earnings.<sup>30</sup> The foreign-incorporated multinational will generally be required to pay the applicable jurisdictional rate for each of its subsidiaries based on their locus of operation. Thus, it will pay \$35 in tax to US tax authorities (35%) and \$20 (20%) to foreign tax authorities, leaving it with a total of \$145 in post-tax income (which may then be distributed upstream to the foreign parent tax free under the foreign jurisdiction's tax rules). The US corporation looks similar at first – it, too, must pay \$35 to US tax authorities and \$20 to foreign tax authorities based on each subsidiary's earnings. And, just as before, it may effectively transfer the US subsidiary's post-tax earnings (\$65) to the parent on a tax-free basis as a consolidated entity). However, should the US parent receive a distribution of the foreign subsidiary's post-tax earnings (\$80), the dividend will be taxable and US Parent will owe domestic tax authorities an additional tax to "level up" the foreign sub's tax bill to US rates of 35% (or a total of \$35). After crediting the \$20 worth of foreign tax already paid by the subsidiary, US tax authorities would collect \$15 in additional tax when the dividend is paid, and the earnings are repatriated. The net result for the US multinational is \$130 in post-tax earnings, falling far short of the \$145 enjoyed by its overseas comparator. Such margins can be significant, particularly in highly competitive global industries.



**Figure 2: US Tax System compared to Foreign Territorial Tax Systems**  
(Assume US rate of 35% and Foreign rates of 20%)

<sup>30</sup> The numerical figures are solely for purposes of illustration only. Moreover, I also assume for illustration that the territorial system grants a full exemption for foreign earnings, even though (as noted above) most territorial systems fall slightly short of that.

*(d) To Repatriate or Not?*

What (if anything) can a US-incorporated parent do to avoid US tax liability on its extraterritorial earnings? Not a lot, it turns out, so long as the parent insists on repatriating the earnings of its CFCs upstream.<sup>31</sup> However, if a foreign subsidiary retains its earnings without distributing them to the parent, its overseas earnings will (mostly) remain non-taxable in the US.<sup>32</sup> Consequently, virtually all US multinational parents have increasingly come to favor strategies that leave their extraterritorial earnings stranded in their overseas CFCs. In the aggregate, the monetary amount of stranded MNC capital appreciable. It is estimated that the aggregate amount cash held in offshore subsidiaries of US multinationals is somewhere in the neighborhood of two *trillion* dollars.<sup>33</sup>

Nevertheless, leaving assets stranded abroad with limited profitable uses is not exactly a paragon of good capital budgeting practices. Indeed, the parent may have several profitable undertakings that could utilize the stranded cash domestically, but which cannot be undertaken at the CFC level. The foreign subsidiary's retained earnings may be a critical and inexpensive source of funds, but the after tax cost is prohibitive. More subtly, stranded foreign earnings may be susceptible to any number of risks from exchange rate volatility, interest rate fluctuations, political risk, and the like<sup>34</sup>; and while some of these risks can be hedged – the cost of doing so may be unattractive.<sup>35</sup> Consequently, any of these factors (as well as others) can undermine the utility of non-repatriated cash.

That said, US multinationals have devised – over the course of many decades – admirably conniving strategies to access their CFCs' marooned monetary morsels. A common strategy for tapping

<sup>31</sup> See IRC Code § 952. A CFC is defined under Subpart F of the code as a foreign corporation with "US shareholders" (US persons each owning directly, indirectly or constructively, at least 10% of the voting stock of the foreign corporation) who together own more than 50% of the voting power or value of the foreign corporation's outstanding shares. (The thresholds are reduced for certain purposes in the case of insurance companies.) See IRC §§ 951-65. Thus, any 100% owned foreign subsidiary of a US parent generally qualifies.

It is worth reemphasizing that for all its odd features, a worldwide-income-based tax regime like that of the US sidesteps a thorny practical issue that territorial tax systems invite: strategic profit shifting. Figure 2 has implicitly assumed that each of the US and foreign subsidiaries generates \$100 in pre-tax earnings. However, in many multinationals, subsidiaries may do business with one another with various types of loans, leases, supply contracts, services contracts, and other transfer pricing schemes. The foreign parent in Figure 2 has a strong incentive to set the terms of such transactions so as to shift net income into the Foreign sub, which is taxed at a lower rate. Such profit shifting schemes, however, are less lucrative to the US Parent, whose subsidiaries all ultimately receive the same tax rate.

<sup>32</sup> See IRC §§ 951 - 965 (subpart F of part III of subchapter N of chapter 1 of subtitle A) and regulations thereunder. An exception is when a controlled foreign corporation has passive income, say from financial assets of other companies it owns. Here, Subchapter F rules generally cause that income to be recognized as accruing to the parent. A frequently offered rationale for this constraint is the fact that passive income streams are highly mobile and US parents would have excessive incentives to moves such income streams into the subsidiary to get deferral.

<sup>33</sup> See Kate Linnebaugh, "How Firms Tap Overseas Cash: U.S. Companies Can Borrow Millions of 'Trapped' Funds From Foreign Units if They Follow the Rules," Wall St. Journal March 28, 2013 (estimating the value at \$1.7 trillion as of early 2013).

<sup>34</sup> See, e.g., Jason Shemtob, "Interested In Amazon Stock? Don't Ignore These Overlooked Risks" Daily FX (03 May 2013) (available at: [http://www.dailyfx.com/forex/fundamental/article/special\\_report/2013/05/03/Interested\\_In\\_Amazon\\_Stock\\_Do\\_not\\_Ignore\\_Earnings\\_Repatriation\\_and\\_Currency\\_Translation\\_Risks.html](http://www.dailyfx.com/forex/fundamental/article/special_report/2013/05/03/Interested_In_Amazon_Stock_Do_not_Ignore_Earnings_Repatriation_and_Currency_Translation_Risks.html))

<sup>35</sup> See, e.g., Chana Schoenberger, "Exposed! As currency volatility rises, companies scramble to avoid being caught with their hedges down," Wall St. Journal (March 2, 2011)

CFC earnings is through the use of inter-company loans to the parent, executed directly or indirectly. While US tax rules often deem such loans to constitute dividends for tax purposes<sup>36</sup> (and therefore taxable as per Figure 2), there are some limited (but well-trodden) exceptions under Section 956 of the Internal Revenue Code, which spells out criteria under which certain inter-company loans are deemed non-taxable.<sup>37</sup> When implemented deftly, these exceptions can unlock an enormous source of stranded liquidity. And unlock it they have: in recent Congressional testimony, for example, Hewlett Packard executives conceded that they utilize such tax-free intercompany loans routinely, to approximately the same extent as they access third party credit through the vast commercial paper market for debt capital – to the tune of nearly \$2 billion in balances on an average day.<sup>38</sup>

Nevertheless, CFC loan loopholes can be temperamental and cantankerous, an artifact of their complicated habitat in the tax code. Most centrally, Section 956 requires any such loans to be short-term in nature, and they generally cannot remain outstanding beyond the end of the subsidiary's fiscal quarter. Should a subsidiary loan remain open beyond the quarterly fiscal close, it may still avoid taxation if the debt is satisfied within 30 days of the time it is incurred. However, this 30-day exception cannot be recycled without bound: if any such quarter-bridging loans are held open for more than 60 days during a tax year, for example, they will be held to constitute an "investment in US property" (and therefore taxable). Consequently, unlike commercial paper, repos, and other short term borrowing instruments, CFC loans effectively cannot "roll over" so that they remain effectively outstanding on a continual basis. Some US multinationals have devised some limited adaptation strategies. HP, for example, established a practice of taking alternating short-term loans from two different controlled foreign subsidiaries, a practice almost certainly designed to avoid the appearance of a continuous long-term loan.<sup>39</sup> While undeniably creative, such strategies also may tempt fate by triggering anti-abuse rules, which give the IRS some discretion to declare technically or facially compliant intercompany loan schemes as abusive, and therefore taxable.<sup>40</sup> Moreover, such arrangements may still lock up a significant amount of cash, since the participating CFCs are not allowed to pool their cash (or the technique falls apart). Consequently, a parent may need upwards of \$2 billion in cash reserves located at the CFC level in order to make use of \$1 billion to the US (since each of the CFCs must have their own segregated source of liquidity). Finally, because these inter-company transactions (even the more creative ones) are constrained to be short-term, it remains difficult to hedge various types of exchange-rate, market and regulatory risks that attend locking up assets in a foreign jurisdiction.

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<sup>36</sup> See IRC Code Sec. 956(c)(1)(C); Reg. §1.956-2(a)(1) (iii).

<sup>37</sup> See IRC Code Sec. 956(a).

<sup>38</sup> Linnebaugh, *supra* note \_\_\_\_.

<sup>39</sup> Linnebaugh, *supra* note \_\_\_\_\_. The HP technique takes advantage of the fact that Section 956 pivots off the CFCs' fiscal quarter ends. Consequently, by setting up CFCs with different taxable years (and hence different quarter end dates), it is possible for one subsidiary to have loans outstanding over the other subsidiary's fiscal quarter end, and thus neither subsidiary would trigger a tax inclusion.

<sup>40</sup> CFC Reg. §1.956-1T(b)(4)(i). Indeed, the IRS has successfully challenged some similar intercompany loan strategies that use a series of short-term, one-month loans from the same CFC that effectively replicate the cash flow patterns of a continuous long-term loan. See Rev. Rul. 89-73, 1989-1 CB 258; *Jacobs Engineering Group Inc., DC-Calif.*, 97-1 USTC ¶150,340, *aff'd*, CA-9, 99-1 USTC ¶150,335 (holding that 12 successive month-long loans made by a US parent company's Panamanian unit to the U.S. parent amounted to a repatriation of funds). For a detailed analysis of this case, see Yoder and McGill, *Treatment of CFC Loans to U.S. Affiliates: The Sword and Sickle of Subpart F*, 26 TAX MGMT. INT'L J. 454 (Sept. 12, 1997).

One last strategy that can dampen the tax sting from repatriating stranded assets is to embrace a leveraged capital structure at the US-parent level. Holding aside any inter-company loans it receives from CFCs, for example, a US parent might engage in long-term borrowing through a third party (e.g., a bond offering, etc.), possibly distributing such funds to shareholders through a dividend or share repurchase, thereby increasing the parent's leverage ratio (popularly called a *dividend recapitalization*). Because the interest expense associated with the US Parent's long-term, third-party debt is deductible to the parent, those debt service payments can act to shield CFC cash repatriations from US tax liability. Moreover, the value of the assets held in CFCs (reflected through their stock held by the parent) provides ample security for bond purchasers, even at relatively diminutive coupon yields. Several major US MNCs have leveraged strategy to great effect, most notoriously Apple Computer, which in 2013 executed what was at the time the largest single corporate bond offering in history (over \$17 billion) at effectively triple-A rates.<sup>41</sup> Although dividend recaps are recognized as having tax advantages generally, their utility for shielding repatriated foreign earnings makes them even more attractive to US-based MNCs. At the same time, in the quest to seek tax relief through leverage, a company may incur excessive debt, which itself can invite bankruptcy risks, debt overhang problems, and risky managerial decisions.<sup>42</sup>

A different dimension of tax avoidance strategy pursued by US-based MNCs concentrates on the tax liabilities of CFCs *prior* to repatriation. Multinationals frequently set up special structures among their affiliated subsidiaries to reduce the foreign tax liabilities of those subsidiaries irrespective of repatriation. Many of these arrangements hinge on a flavor of jurisdictional arbitrage, employing (for

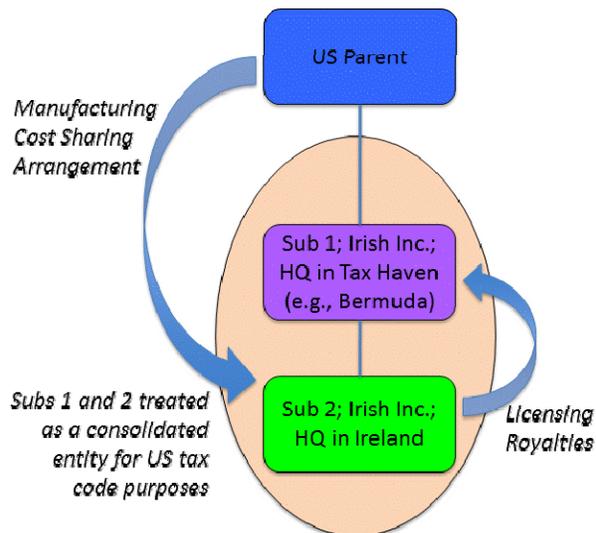


Figure 3: "Double-Irish" Structure for Foreign Tax Avoidance

example) leases of intangible property to exploit anomalies or inconsistencies among foreign tax jurisdictions. The effect is to shift (and sometimes eliminate) foreign tax liability. A common variant of this scheme is popularly known as the "Double Irish" structure, pictured in Figure 3. Under this approach, a US Parent sets up two subsidiaries (Sub 1 and Sub 2), both of which are incorporated in Ireland. Sub 1's headquarters, however, are in a tax haven (such as the Bermuda), while Sub 2's are in Ireland. Irish tax law permits (at least for now<sup>43</sup>) the location of corporate "headquarters" to determine tax residence, and thus Sub 1 would be considered a Bermudan tax entity (where there is no corporate tax). Sub 1 is endowed

<sup>41</sup> Katy Burne & Mike Cherney, "Apple's Record Plunge Into Debt Pool Offering Sets Record; Demand Was More Than \$50 Billion" Wall St. Journal (April 30, 2013). Five months later, this bond offering was eclipsed by a \$49 billion offering by Verizon, itself a large US-parented MNC with significant foreign subsidiaries. See Matt Robinson, "Verizon Raises \$49 Billion in Largest Corporate-Bond Sale" Bloomberg News Sep 11, 2013.

<sup>42</sup> See, e.g., Leland & Pyle (1988).

<sup>43</sup> See note \_\_, *infra* (documenting an impending change in Irish (and UK) tax residency rules).

with rights to various of the Parent's hard-to-value intangible assets (e.g. patents, trademarks, copyrights, etc.) which it then licenses to Sub 2 at relatively high (but hard to value) royalty rates.<sup>44</sup> Sub 2 then acts as manufacturer / distributor of all the parent's foreign sales, pursuant to a manufacturing cost sharing arrangement with the US Parent.<sup>45</sup> Its royalty payments to Sub 1 are fully deductible under Irish law, and thus Sub 2 shows little or no net earnings, which are capitalized into the royalty amount. Sub 1, of course shows significant earnings, but it is taxed at the Bermuda rate of 0%.

The Double Irish structure – and its variants<sup>46</sup> – effectively shifts the MNC's tax base among foreign jurisdictions in order to concentrate them in the jurisdiction with the most favorable tax treatment. As noted above, profit-shifting is a dilemma endemic to territorial tax systems like Ireland's, though is perhaps less of a problem in systems that tax worldwide income. (Indeed, perhaps for this reason Ireland appears destined to impose heavy constraints on the prospective use of the Double-Irish structure, removing the option to peg an Irish corporation's tax residency on the location of its corporate headquarters<sup>47</sup>). Nevertheless, note that even if a structure such as the above succeeds in reducing the US Parent's foreign tax liabilities to zero (or near zero), it does not solve the problem of stranded offshore cash. In fact, successful profit shifting exacerbates matters, if anything. By causing the multinational to avoid most or all foreign taxes, cost shifting results in a US issuer's CFCs collectively holding an *even larger* stock of liquid assets. Moreover, if or when that cash is ever repatriated, it will not face a mere "leveling up" tax equal to the difference between foreign and US nominal rates; rather, the tax bill associated with repatriation will be a far more discontinuous jump to the full 35-40 percent marginal rate of combined state and federal tax that most multinationals face in the US. In short, the very foreign tax reduction strategies ingeniously pioneered and adopted by US multinationals have significantly ratcheted up both the stakes and the costs of ever repatriating those assets.

Finally, in addition to these well-known tactics, American MNCs have pursued even more aggressive strategies to reduce and even eliminate its CFCs' tax liabilities. Several European jurisdictions, for example, specifically grant favorable tax treatment to income earned through intellectual property licenses as opposed to other corporate income (so-called "IP boxes").<sup>48</sup> Such treatment, when combined with the notorious difficulty in valuing IP licensing rights, can facilitate base shifting among

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<sup>44</sup> The two foreign subs can elect under US law to be treated on a consolidated basis, and therefore any royalty or other transfer payments between them are disregarded for US tax purposes.

<sup>45</sup> The cost sharing arrangement is usually required under US law to keep Sub 2 from being deemed a domestic subsidiary under US law.

<sup>46</sup> Figure 3 does not consider that Ireland imposes a withholding tax on all royalties paid to non-EU tax entities (which includes Sub 1, a BVI tax entity). However, other EU countries (such as the Netherlands) do not impose such a tax. Thus, a somewhat more common variant on the Double-Irish structure interposes another Dutch subsidiary between Sub 1 and Sub 2 to act as a pass-through entity for the royalty, thereby sidestepping any withholding tax. This variant is sometimes called the "Double Irish Dutch Sandwich" structure.

<sup>47</sup> See Finance Bill 2014 (available at <http://www.legislation.gov.uk/ukpga/2014/26/contents/enacted>). Specifically, all corporations incorporated in Ireland after January 1, 2015 will be deemed to be Irish corporations, regardless of the location of their headquarters. Companies incorporated in Ireland before 2015 will be grandfathered in on January 1, 2020. *Id.*

<sup>48</sup> These include Belgium, France, Hungary, Liechtenstein, Luxembourg, the Netherlands, Spain, Switzerland, the UK, Malta, and Cyprus. In general, marginal IP Box rates are less than half the applicable corporate income tax rate, and in some cases (such as Malta) as low as zero. See Lisa Evers, Helen Miller, and Christoph Spengel, "Intellectual Property Box Regimes: Effective Tax Rates and Tax Policy Considerations," Center for European Economic Research Discussion Paper No. 13-070 (2013) (<http://ftp.zew.de/pub/zew-docs/dp/dp13070.pdf>).

international affiliates.<sup>49</sup> And, bolder approaches also appear to have been pursued as well, usually by more prominent and larger MNCs. Regulators in Brussels, for example, recently brought charges against Apple Computer relating to illegal alleged agreements it entered with Irish authorities as early as 1991 to receive special tax-favored status (along with unusually low rates).<sup>50</sup> These charges add to the stock of other creative strategies that – it has emerged – Apple employed to great effect, such as the creation of CFCs with no declared tax residence whatsoever and thus, they contend, no required tax liability.<sup>51</sup> Although these investigations are still underway, it is a very good bet that Apple was not alone. And the fact that such activities have raised the ire of international tax regulators (regardless of whether Apple will ultimately be forced to answer monetarily), suggests an additional form of vulnerability of the status quo.

Nevertheless, because this last set of strategies is capable of affecting only foreign tax liabilities, they do little to address the problem of stranded overseas assets (and they may even exacerbate such problems by increasing the marginal costs of repatriation). Consequently the status quo reflects a circumstance where US multinationals have continued to build up vast and unprecedented chests of overseas cash that is expensive to repatriate, cumbersome to access, and increasingly risky and costly to hold in its current state. It is perhaps unsurprising, then, that issuers began to look for another strategy – one they found in the tax inversion.

### *III. Corporate Inversions: The New, New (Old) Math*

Given the attendant costs and risks associated with stranding capital in CFCs (which can themselves be magnified by aggressive tax avoidance strategies), the resurgence of tax inversion transactions among American MNCs was perhaps inevitable. This section provides an overview of such transactions, their history, and the evolving set of regulatory constraints in the US promulgated in response. I then turn to a pragmatic analysis of which types of firms – in the light of these and other impediments – are likely the best (and worst) candidates to invert. The section closes by analyzing in greater depth one such evident impediment: the practical requirement that inversion targets abandon US (and Delaware) corporate law. Here I argue that while this impediment is clearly a real one, for publicly traded companies it has become decreasingly important over the last fifteen years, as federal law has visited progressively greater preemptive incursions on state corporate governance law, effectively unbundling tax and governance.

#### *a. Overview and Regulatory Evolution*

The intent behind an inversion transaction is to relocate the tax residence of an American MNC parent outside of US jurisdiction, transplanting it into a jurisdiction offering a more favorable tax environment. As noted in the previous section, there are a host of foreign jurisdictions that offering lower

<sup>49</sup> Interestingly, just as the Finance Bill 2014 will heavily constrain the “Double Irish” structure (see footnote \_\_, supra), it is likely to relax conditions on IP Box treatment in Ireland, so that “monoline” Irish IP licensor could potentially achieve an effective tax rate of 0%. See Deloitte Client Alert, “International Tax: Irish Tax Alert” (October 23, 2014) (<http://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-alert-ireland-231014.pdf>).

<sup>50</sup> Tim Bradshaw, Alex Barker, & Vanessa Houlder, “Apple hit by Brussels finding over illegal Irish tax deals,” *The Financial Times*, September 28, 2014.

<sup>51</sup> Id. See also Kleinbard, Edward D. 2011. “The Lessons of Stateless Income.” 65 *Tax Law Review* 99. USC Center in Law, Economics and Organization. Research Paper No. C11-2. USC Legal Studies Research Paper No. 11-7. Sanchirico, Chris. 2014. “As American as Apple Inc. – International Tax and Ownership Neutrality” (working paper).

tax rates, territorial (rather than global) tax treatment, more flexible tax residency rules, and more liberal recognition rules than does the United States. The most creative forms of inversion transactions, therefore, attempt to capitalize on these differences, in a way that is maximally beneficial – all things considered – for the inverting corporation.

Given the tremendous upsurge of late in inversion activity, it is important to keep in mind that similar types of tax-avoidance-motivated merger transactions are nothing new under the sun. Indeed, an early border skirmish in the public battle over inversions took place over two decades ago, when in 1993, Helen of Troy, a publicly traded Delaware corporation in the personal care and cosmetics industry, formed a shell subsidiary in Bermuda (which at the time, as now, had no corporate income tax), causing the subsidiary to acquire the parent in a stock-for-stock transaction.<sup>52</sup> Under the then-prevailing tax rules, this transaction – like any other stock deal – was deemed nontaxable to US shareholders.<sup>53</sup> Once the transaction closed, moreover, the surviving parent continued to be traded in the US public markets under Helen of Troy’s name, but with incorporation and tax residency in Bermuda.

The Bermudan tax abduction of Helen of Troy raised considerable alarm at the time about the use of shell transactions to execute escape US tax treatment — sometimes known as a “naked” or “shell” inversion. The IRS soon thereafter dispatched a response, in the form of a set of anti-inversion regulations promulgated in 1996. The ultimate reforms made inverting decidedly more expensive, by deeming it a taxable event to US shareholders of the inverted company unless the US target’s equity was diluted by new ownership by no less than 50 percent.<sup>54</sup> The 1996 regulations also imposed a 15-percent “excise tax” on stock remuneration of officers, directors, and large block shareholders of the inverting company – a levy that was (and is) difficult to sidestep.<sup>55</sup>

<sup>52</sup> A stock-for-stock acquisition of a parent by a wholly-owned subsidiary is a standard and unremarkable move in M&A (even if it has no logical parallel in, say, family law). Notably, the US issuer McDermott Inc. had done something similar to Helen of Troy some ten years prior, in 1983.

<sup>53</sup> See IRC § 368(a)(1)(B)

<sup>54</sup> See IRC § 367, under which U.S. shareholders recognize taxable gain (but not loss) in outbound acquisitions. Although such gain can be avoided in some circumstances, the § 367 implementing regulations make it effectively impossible to avoid them short of a significant shareholder dilution. Specifically, those conjunctive conditions are as follows:

- (a) The US Target in the aggregate receive 50% or less (by vote and value) of Non-U.S. Acquiror
- (b) The US Target’s directors, officers, and 5% shareholders that are U.S. persons own 50% or less (by vote and market value) of Non-U.S. Acquiror
- (c) The Non-U.S. Acquiror is engaged in an “active trade or business” outside the US and the value of Non-US Acquiror is at least equal to the value of US Target , and
- (d) The U.S. shareholder either (i) owns less than 5% (by vote and value) of Non-US Acquiror or (ii) enters into a 5 year “gain recognition agreement.”

<sup>55</sup> *Id.* (providing that if the US Target shareholders own at least 60% of Non-US Acquiror and any US shareholder recognizes gain, then an excise tax is imposed on the stock compensation of officers, directors, and greater-than-10% owners of US Target and Non-US Acquiror). The tax applies to officers, directors and block shareholders of any affiliated group member, as well as any fiduciary who held that position during the previous six months. Any attempt to “gross-up” a corporate fiduciary’s stock compensation to compensate for the tax will itself be subject to an excise tax. *Id.*

Although this first generation of reforms possibly deterred a fair number of inversion transactions, it proved little more than a speed bump to others.<sup>56</sup> For example, the taxable nature of the transaction to shareholders mattered little if most shareholders of the inverting US corporation were tax-exempt entities, or already had a high tax basis in their holdings, or were non-US taxpayers. In addition, some acquisitions are designed to be taxable in any event (and many buyers in fact prefer taxable deals because they involve an attractive basis adjustment to the target's assets and goodwill). Moreover, prospective targets in which officer and director compensation that had significant restricted or unvested components could also take creative moves (such as accelerated vesting) to minimize the force of the excise tax. In many instances, the terms of the inversion transaction involved "grossing up" any directors, officers, or block shareholders for any additional tax liability. Finally, even if shareholders and corporate fiduciaries were required to recognize some tax liability at the individual level, those costs were arguably dwarfed by the prospects for tax savings at the corporate level by relocating the company's tax domicile were sometimes sufficiently large to justify the move notwithstanding its costs. Even after the 1996 reforms, then, a steady stream of inverters continued to pursue the strategy.<sup>57</sup> This calculus remains valid today.

Eight years later, through the 2004 American Jobs Creation Act and implementing regulations, Congress and the IRS added a second significant set of inversion restrictions through IRC § 7874, which has become a centerpiece for structuring most of today's inversions. Rather than concentrating on taxing US shareholders of the inverting company, § 7874 sets out criteria by which the IRS would simply ignore the transaction, treating the surviving parent as a "surrogate" US company – and taxing it as such – no matter where it was incorporated. Specifically, the section (and surrogate status) applies to transactions in which three conjunctive criteria are met: (i) the foreign buyer acquires (directly or indirectly) substantially all of the properties held by a US corporation, (ii) the former shareholders of the US target end up owning at least a specified floor (either 80% or 60%) of the surviving entity's stock, and (iii) the expanded affiliated group that includes the foreign acquiring corporation does not have "substantial business activities" in the foreign acquiring corporation's country of incorporation when compared to its overall business activities of the expanded affiliated group. Under the terms of § 7874, an inversion transaction can still procure favorable tax treatment (and avoid US taxation of the surviving entity) if it can demonstrate that the transaction flunks at least one of the above three conditions.

In many inversions, however – particularly those that are predominantly tax avoidance plays – conditions (i) and (iii) are almost always satisfied. The acquiring foreign parent in a typical inversion typically *does*, in fact, acquire all or substantially all of the properties of the US issuer – indeed, the principal aim of such transactions is to remove those properties (to the extent possible) from US tax treatment, which requires a substantial acquisition. (Moreover, successorship clauses in the target's

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<sup>56</sup> Indeed, it is possible that by clarifying the ground-rules for consummating legitimate inversions, the reforms may have catalyzed other such transactions. See TAN \_\_\_\_ - \_\_\_\_ *infra*.

<sup>57</sup> These include Triton (1996), CBI (1996), Tyco (1997), Santa Fe Intl. (1997), Fruit of the Loom (1998), Playstar (1998), Gold Reserve (1998), White Mountain Ins. (1999), Transocean (1999), PXRE Group (1999), Trenwick (1999), Xoma (1999), Seagate (2000), Everest Reinsurance (2000), Applied Power (2000), R&B Falcon (2000), Global Santa Fe Corp. (2001), Foster Wheeler (2001), Accenture (2001), Global Marine (2001), Herbalife (2002), Noble Corp. (2002), Cooper Industries (2002), Weatherford Int'l (2002), Ingersoll-Rand (2003), and PWC Consulting Inc. (2003). See Shayndi Raice, *How Tax Inversions Became the Hottest Trend in M&A Tax Inversions a Major Driver in Cross-Border Deals*, Wall St. Journal (Aug. 5, 2014).

contractual instruments invariably require any sale to be a complete transfer.<sup>58</sup>) In addition, it is unlikely that a significant fraction of a US inverter's ventures will be located in the target outbound jurisdiction for the transaction (particularly if that jurisdiction is chosen predominantly for attractive tax rules), and thus the "no substantial business activities" criterion would be flunked only through fortunate coincidence.<sup>59</sup>

Therefore, the most practically attainable way for a typical inversion to obtain favorable tax treatment is to focus on the ownership continuity thresholds from condition (ii) above. Section 7874 articulates two distinct cutoff points for the maximum ownership stake the US issuer's shareholders are allowed to retain in the post-transaction entity. The resulting tax treatment of the surviving entity depends on which (if either) dilution threshold obtains. The first (and most favorable) threshold to kick in is when shareholders of the US target end up less than 60 percent of the surviving foreign parent corporation (measured either by voting power or economic value), by reason of their ownership of US target corporation stock. When the former US target shareholders are below this threshold (and thus their ownership is diluted by 40 percent or more), then the transaction and the surviving entity receive extensive benefits, including full prospective recognition of the surviving parent by US tax authorities as a foreign corporation.

The benefits are still appreciable – though not as extensive – when the magnitude of dilution is smaller (i.e., when US target shareholders end up owning more than 60 percent but less than 80 percent of the surviving parent entity). Here, the surviving entity still receives foreign residency tax status going forward, but there are some significant strings attached. In particular, certain gains recognized by the US target in the inversion establish what amounts to a lower bound on the US company's taxable income for the following ten years.<sup>60</sup> Such amounts are taxable in full at the maximum corporate tax rate, with no standard offsets (such as net operating losses) to shield the liability.

Finally, if US target shareholders end up owning 80% or more of the surviving parent (again measured either by voting power or value), then the foreign acquiring corporation is treated as a surrogate US corporation for all US tax purposes, and any of the foreign acquirer's pre-transaction subsidiaries become CFCs of the surrogate entity. In this threshold, the inversion fails as a tax avoidance mechanism, and it may actually invite greater tax liabilities to the extent that the foreign acquirer's affiliates are now under US tax jurisdiction. (All the while, keep in mind that even when an inversion satisfies the aspired-for 60% or 80% threshold, any inversion in which dilution of US shareholders is less than 50% triggers individual-level tax as well as an excise tax on extraordinary compensation).

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<sup>58</sup> But see TAN \_\_-\_\_, *infra*, discussing "spinversions."

<sup>59</sup> Under implementing guidelines promulgated by the IRS in 2012, "Substantial business activities" are present in any jurisdiction where the worldwide corporate group (post inversion) has at least 25% of its: (a) Employees (including employee compensation); (b) Assets; and (c) Income. Before 2012, that safe harbor had been 10%, a threshold that was decidedly easier to meet. It is worth observing that a minority of recent inversions have nonetheless taken the position that the surviving company met the "substantial business activities" test in the incorporation site of the surviving entity. These include Aon Corp., Rowan Companies, Tim Hortons, Western Goldfields, and Sara Lee.

<sup>60</sup> The US company's taxable income (now as a subsidiary) over this ten year period cannot be less than the "inversion gain," meaning the gain recognized on its transfer of stock or assets plus certain royalty income from foreign affiliates. IRC § 7874.

Figure 4 provides a depiction of a typical inversion that is designed to satisfy the 60% or 80% continuity thresholds. In the figure, a foreign acquirer creates a captive subsidiary (“Merger Sub”) that merges with the US target, paying stock in the foreign acquirer as currency in the transaction.<sup>61</sup> As a result of the merger, the foreign acquirer becomes the parent of the US target (and all its subsidiaries). Former shareholders of the US target emerge with stock of the foreign acquirer, and sit alongside shareholders of the acquiring corporation with an ownership claim that is designed to meet the relevant threshold (either 60% or 80%, depending on what tax benefits the parties are hoping to receive).

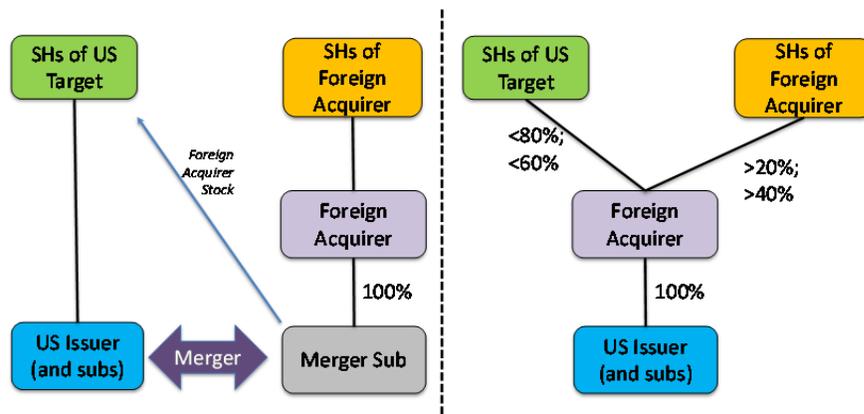


Figure 4: Organizational Structure of Standard Inversion (Reverse Subsidiary Merger)

In many transactions, it is difficult, in practice, to meet the relevant 60%/80% thresholds because the American “target” is simply too large relative to the foreign “acquirer” to produce the desired extent of dilution at a fair exchange rate for the stock transaction. Consequently, many deals have attempted embellish the relative valuations of the parties — and thereby satisfy the threshold — through a series of transactions meant to put the US corporation on a starvation diet and its foreign counterpart on a fiscal bender. A common strategy for the former was to cause the US target pay a “skinny-down dividend,” such as by borrowing cash and paying it out as a dividend to shareholders, so as to reduce its assets and equity value and make it more comparably sized to the target.<sup>62</sup> Although longstanding IRS guidance dictated that such dividends were to be ignored if their “principal purpose” was to avoid anti-inversion regulations, there often ways to mask the rationale behind the payment (including the use of cash as part of the consideration for the acquisition of the US target in the merger itself). Another common strategy has been to “puff up” the evident value of the foreign acquirer through aggregating passive assets (such as cash or stock of other companies) in retained earnings before executing the inversion. Other structuring tactics include having the US target, prior to the transaction, spin off various divisions—or alternatively have the foreign buyer acquire other foreign entities—to skew the balance. Alternatively, some deals involved a spinoff of a portion of an American issuer to a newly formed foreign corporation, distributing the stock of the new corporation to the issuer’s stockholders (also known as a “spinversion”).<sup>63</sup> Such

<sup>61</sup> The foreign subsidiary may formally be deemed the acquirer under the applicable merger statute, or it may be acquired by the US company in a “reverse subsidiary merger.” Although there are some tax implications of this structure, they are not as pertinent for the purposes of current discussion.

<sup>62</sup> Several inversion transactions — such as Argonaut/PXRE (2007) and Valeant/ Biovail (2010), used such strategies.

<sup>63</sup> As noted above, “spinversions” may create problems in allocating the US corporation’s debt, and some debt covenants specifically prohibit such piecemeal sales.

structures (such as in the recent deal under which Mylan acquired Abbot Laboratories' generic drug assets<sup>64</sup>) effectively reduce the size of the acquired entity relative to the acquiring foreign corporation, so as to satisfy the applicable 60% (or 80%) dilution threshold under § 7874. If all else failed, one final approach would be to have some of the consideration come in cash, or simply to grant the foreign acquirer exceptionally attractive terms of exchange in the deal, so as to justify a valuation that appears to hit the targeted dilution threshold.<sup>65</sup>

In addition to complying with the requisite conditions prescribed by the US tax code, of course, the inversion transaction must also satisfy applicable conditions in the foreign jurisdiction where tax residency of the surviving entity is sought. Thus, for example, if the transaction seeks tax residency in a jurisdiction that utilizes a "corporate headquarters" test, the headquarters of the resulting entity could not remain in the United States, but would have to be moved to the foreign location. Many recent inversions with surviving Irish parent corporations (such as Medtronic-Covidien) opted to make this move.<sup>66</sup>

Although the 2004 statutory and regulatory reforms clearly added teeth to the US anti-inversion rules, the experience over the decade since suggests the attempt was either ineffectual or it was overpowered by other factors. Indeed, in the decade between the Helen of Troy inversion and the 2004 reforms, a grand total of 27 inversions were consummated in which a US public company moved its tax home abroad. In the ensuing decade since the 2004 reforms, there have been nearly twice that number (51), and twenty five such transactions have been consummated since 2011 alone, constituting over two thirds of the United States' outbound M&A activity over that period.<sup>67</sup> Evidently, the tax advantages of inversions remained too lucrative for many US issuers to pass up. During the summer of 2014, just as President Obama was making the pronouncement reproduced at the beginning of this article, most analysts eagerly awaited what response (if any) would come from the Congress, the Treasury, or others.

That response came in September 2014, when the US Treasury issued new guidance intended to place more significant constraints on the attractiveness of tax inversions.<sup>68</sup> The new Guidance did not alter the 60%/80% cutoff points under § 7874 *writ large*. However, the new rules do make it harder for parties to engage in now-familiar parlor tricks that render a transaction compliant with targeted dilution thresholds. For example, the guidelines now heavily constrain skinny-down dividends, disregarding "extraordinary" dividends made during the three-year period that precedes the transaction.<sup>69</sup> Additionally, the value of the foreign acquirer must be computed independent of passive asset holdings (such as cash or

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<sup>64</sup> Michelle Fay Cortez, "Mylan to Add Abbott's Generic-Drug Unit, Cut Tax Rate" Bloomberg News (July 14, 2014) (available at <http://www.bloomberg.com/news/2014-07-14/abbott-to-sell-generic-drug-unit-to-mylan-for-5-3-billion.html>).

<sup>65</sup> Whether this last strategy might be a violation of fiduciary duties is a matter addressed below.

<sup>66</sup> Joseph Walker, "Medtronic's Tax Inversion: Not as Easy as It Seems Merger With Covidien Provides Address in Ireland, but Tax Implications Are Complex" Wall St. Journal (June 19, 2014).

<sup>67</sup> Shayndi Raice, How Tax Inversions Became the Hottest Trend in M&A Tax Inversions a Major Driver in Cross-Border Deals, Wall St. Journal (Aug. 5, 2014).

<sup>68</sup> Internal Revenue Service (IRS) Notice 2014-52.

<sup>69</sup> The Guidance defines such a dividend or dividends to be in excess of (i) all distributions made during the taxable year by DT over (ii) 110 percent of the average of all distributions during the 36-month period immediately preceding such taxable year. *Id.*

passive investments) when at least 50 percent of the entity's assets are passive.<sup>70</sup> The new rules also place new hurdles in the way of "spinversion" transactions treating the spun off assets (even if incorporated abroad) as a US corporation for tax purposes.<sup>71</sup> Another area where the 2014 Guidance tightened up scrutiny was in post-inversion intercompany loans. The guidelines specifically deem as taxable "hopscotching" loans in which the CFCs owned by the US target lone capital directly to the foreign acquirer. That is, these "hopscotch" loans are deemed to have been passed through the US target – for a period of ten years after the inversion. Consequently, such loans would continue to have to satisfy the IRC § 956 constraints discussed above.<sup>72</sup>

Although it is too early to tell what effect the new guidelines will have, many experts posit that at least for some aspiring inverters, they resemble a speed bump more than a crash wall. On the one hand, it is clear that the new Guidance has imposed a considerable constraint on some pending deals, particularly those that were signed (but not yet closed) prior to the rule change.<sup>73</sup> On the other hand, the more stringent rule change may simply invite more inversion activity, since the act of clarifying the applicable ground rules for inversions may end up catalyzing more of them. As one commentator put it:

In a perverse way, Treasury's most effective weapon may have been ambiguity. Once the Administration announced in August that it would take undefined regulatory action against these deals, almost all pending transactions stopped (with the exception of the Burger King-Tim Horton's union). Privately, tax lawyers told me they would have to wait to see what Treasury would do before moving ahead. Now the dealmakers have the roadmap they need to keep their inversions Kosher. And with that guidance, it is likely that lawyers will attempt to restructure many transactions to satisfy the new rules.<sup>74</sup>

*b. You Get an Inversion; YOU Get an Inversion; EVERYBODY Gets an Inversion?*<sup>75</sup>

In the light of the complicated regulatory landscape detailed above, it should perhaps not be surprising that tax inversions are simply not appropriate for all types of firms. Some companies are likely – even after the most recent Treasury Guidance – to want to pursue them still; but for others, the costs and difficulties of inversions are likely to be prohibitive. While cataloguing the entire spectrum of considerations that are relevant to inversion calculus is beyond the scope of this article, it is worthwhile noting some of the most significant ones briefly:

- Domestic Orientation: As noted above, the principal benefit of inverting comes from the favorable tax treatment accorded to taxable income earned abroad. If a US corporation's income is largely derived from domestic operations, most of its earnings will remain taxed at US rates,

<sup>70</sup> Prior guidelines excluded passive assets only if they were part of a transaction related to the merger (so-called "stuffing" transactions).

<sup>71</sup> Id. [describe with more detail]

<sup>72</sup> See TAN \_\_\_\_-\_\_\_\_ supra.

<sup>73</sup> These include pending inversions of Abbot Labs / Mylan (a "spinversion"); Medtronic / Covidien; and AbbVie / Shire. Shares in each of these companies were off discernibly in the hours after Treasury released the Guidance. See WSJ, Sep 23, 2014 DEALS: The Inversion Trade: Stocks Selling Off on Treasury Guidance.

<sup>74</sup> Howard Gleckman, Forbes. *Treasury's New Rules May Slow, But Won't Stop Corporate Tax Inversions* (9/23/14)

<sup>75</sup> See <http://www.oprah.com/oprahshow/Oprahs-Entire-Audience-Are-Surprised-with-New-Cars-Video>.

regardless of the jurisdiction of incorporation. Similarly, the subsidiaries of the US target often still fall under American tax rules after the inversion.<sup>76</sup>

- **Shareholder Opposition:** Some US shareholders may find inversion transactions objectionable for a variety of reasons. First, as noted above, the applicable tax rules require these transactions to dilute US shareholders, thereby giving them less influence over the surviving company. Second, most such transactions – unless significantly dilutive – are taxable events to US stockholders, regardless of the consideration paid. Should the US target have significant numbers of taxable US shareholders with low basis in their stocks, or significant holdings by founders or other holders who want to maintain a modicum of influence, an inversion transaction might prove extremely unpopular, making approval less certain.<sup>77</sup>
- **A Bleak (and Expensive) Singles Scene:** In some industries (as in pharmaceuticals, where the inversion craze has recently flourished), the population of acceptable foreign dancing partners is small, dwindling, and increasingly expensive. Moreover, even if a willing partner emerges, it can be hard to find one that is sufficiently large to meet the 60% / 80 % thresholds described above (particularly so after the September 2014 Guidance made it difficult to game these boundaries). This scarcity is reflected in the terms of some recent deals, where the implied valuations have been eye-popping. AbbVie, for example, agreed to terms that valued its UK counterpart Shire at 24-times Shire's EBITDA, and Medtronic agreed to a 14.3x multiple for Covidien, far exceeding industry norms.<sup>78</sup> Moreover, deals that run very close to these dilution margins can be risky and challenging to structure. For example, it may be prohibitively hard to negotiate a “floating” exchange rate in a merger (which could turn on the US target's stock price), since a sudden upturn in the target's value could cause the terms of the deal to trip a dilution threshold (with adverse tax consequences).
- **Legal Challenges:** Almost all acquisitions of public companies give rise to some sort of legal challenge. Inversion transactions – notwithstanding their tax benefits – are no exception. The terms of the acquisition may be subject to a host of potential challenges, ranging from complaints about the imposition of tax liability, to self-dealing, to *Blasius*-based challenges of improper manipulation of the shareholder governance franchise, to *Revlon*-based challenges asserting that the foreign acquirer received excessively generous terms of trade (possibly to make the transaction meet the relevant dilution threshold).<sup>79</sup>

<sup>76</sup> Joseph Walker, “Medtronic's Tax Inversion: Not as Easy as It Seems Merger With Covidien Provides Address in Ireland, but Tax Implications Are Complex” Wall St. Journal (June 19, 2014).

<sup>77</sup> Wall St. Journal, Tax Report: An 'Inversion' Deal Could Raise Your Taxes: Shareholders Are Likely to Owe Capital-Gains Tax (August 1, 2014).

<sup>78</sup> See Bloomberg Press, DEALTALK-Amid tax inversion craze, some U.S. companies get cold feet Mon Aug 25, 2014. EBITDA stands for “earnings before interest, tax, depreciation and amortization,” and such multiples are a standard benchmark for valuations. In typical transactions, they will frequently be below 10x.

<sup>79</sup> See, e.g., *City of Miami General Employees' and Sanitation Employees' Retirement Trust v. C&J Energy Services*, No. 9980-VCN (Del. Ch. Nov. 24, 2014) (applying *Revlon* scrutiny to an inversion transaction structured to transfer more than 50 percent of control of the US Target to a controlled foreign acquirer, in order to satisfy dilution thresholds under IRC § 7874 and § 367). In December 2014, the Delaware Supreme Court reversed, holding Vice Chancellor Noble had misconstrued what Delaware law requires of a target board in a *Revlon* transaction. The Supreme Court assumed for discussion, however, that *Revlon* was applicable, refraining from making a determination on whether reserving significant post-acquisition minority rights could render the *Revlon* test inapplicable. See *C&J Energy Services v. City of Miami General Employees' and Sanitation Employees' Retirement Trust*, No. 655/657, 2014 (Del, 2014). Shareholders have also challenged “grossing up” provisions in

- **Technical Challenges:** Because inversion transactions are virtually all strategic (rather than financial) mergers, there can be challenges in integrating the operations of the two participants. Corporate cultures and legal traditions can differ significantly. Moreover, inversions can require shifting to different accounting protocols (e.g., GAAP to IFRS), which can prove cumbersome.
- **Regulatory Challenges:** Particularly large transactions may face significant regulatory risk from competition authorities, foreign-direct-investment boards and even takeover panels. Moreover, a significant form of risk can come from US and foreign tax authorities themselves, who can (and do) alter the rules on tax treatment when a deal is midway between signing and closing.
- **Jurisdictional Roulette:** A final possible downside from inverting – and one that animates much of the rest of this article – is jurisdictional: Under US tax rules, an inversion mandatorily requires moving the jurisdiction of incorporation away from the familiar jurisprudential stomping grounds for US public companies – usually Delaware law – and into the domain of a foreign jurisdiction (such as Ireland, the UK, Canada, etc.). Not only might that new jurisdiction be unfamiliar (and perhaps undesirable), but surrendering US law could be particularly inconvenient and costly, particularly for those firms that benefit by “bonding” to the contours of Delaware law. Moreover, the safety net of Delaware law likely earns its keep at pivotal crisis moments in a corporation’s lifetime, where the Chancery Court has developed a reputation for swift, competent, and relatively predictable adjudication. How a foreign jurisdiction handles similar crisis moments is still unclear.<sup>80</sup> Inverting can thus carry a material collateral cost as to corporate internal affairs – the company must trade in a strong and familiar hand (and the Chancery Court’s sophisticated judiciary) for a brand new deck with a brand new dealer.<sup>81</sup>

Although it is unlikely that the above factors would manifest themselves on aspiring inverters in identical ways, the aforementioned considerations are plausibly significant enough for some firms to make tax inversion game unworthy of the candle (at least for some companies). Perhaps consequently, some commentators have pointed to early signs that the inversion frenzy has begun to slow on its own accord, even without an extra push from tax policy.<sup>82</sup>

*c. Internal Affairs, Corporate Governance, and the Loss of Delaware Jurisprudence*

This section closes by offering a more in-depth analysis of the final of the aforementioned costs of inverting: The loss of US (and Delaware) jurisprudence to inverting corporations. How large of a cost associated with swapping Wilmington for London or Belfast? Reasonable minds can (and often do) differ; and the issue is difficult to measure empirically. Nonetheless, Delaware’s traditional dominance in

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deals meant to make executives and directors whole for the inversion excise tax. Such a suit is currently in progress regarding the Medtronic deal. Marino Eccher, “Medtronic shareholder sues over merger tax compensation plan,” Pioneer Press, 10/6/2014.

<sup>80</sup> As one senior partner put it in a recent interview: “It sounds easy enough when you are just scheduling quarterly board meetings in some exotic locations....But then if you’re in the middle of an M&A deal or activist situation and the board has to meet frequently, we’ve seen this can become an administrative burden.” Mario Ponce, of Simpson Thatcher & Bartlett, quoted in Bloomberg Press DEALTALK, supra note \_\_\_\_.

<sup>81</sup> As I will argue below, however, this last collateral cost may not be as large as it once was, due to increasing colonization of corporate governance rules by federal law. See TAN \_\_-\_\_ infra.

<sup>82</sup> See Bloomberg Press, DEALTALK-Amid tax inversion craze, some U.S. companies get cold feet Mon Aug 25, 2014.

attracting incorporations – and its maintenance of such dominance – has been the topic of untold reams of academic writing.

According to some scholars, Delaware’s centrality is an artifact of a “race to the bottom” in which corporate managers choose Delaware because it is protective of management more than beneficial to companies.<sup>83</sup> Yet other have argued that this position is due largely to network externalities, regardless of whatever the original reasons might have been for Delaware’s dominance.<sup>84</sup>

A third camp – and likely a measured majority of corporate law scholars and practitioners – tends to believe that corporate governance “matters,” and that Delaware’s legal framework and accompanying institutions add – all told – net economic value to public companies by encouraging (or requiring) governance practices that tend to serve shareholders’ interests.<sup>85</sup> Other US jurisdictions, by contrast, may not hold such attraction,<sup>86</sup> and the state of the literature regarding foreign jurisdictions (including Ireland) remains sparse.<sup>87</sup>

Empirically, the proposition that Delaware law creates value enjoys some support. Through the end of the 1990s, incorporation in Delaware tended to predict significantly greater profitability and enterprise value. At the same time, however, other evidence has suggested that the “Delaware effect” has been inconsistent over time, and that it perhaps began to atrophy (nearly completely) by the late 1990s into the mid-2000s.<sup>88</sup> There are likely many reasons for this atrophying trend. However, one roughly contemporaneous phenomenon – documented at some length by Mark Roe<sup>89</sup> – concerned the interplay between state and federal securities law (as discussed in greater detail below).

Similarly, substantial empirical evidence suggests that listing in US securities markets is associated with positive economic value creation. A large literature on cross-listed issuers, for example, has

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<sup>83</sup> E.g., Lucian Bebchuk, Alma Cohen & Allen Ferrell, Does the Evidence Favor State Competition in Corporate Law? 90 CAL. L. REV. 1775 (2002).

<sup>84</sup> Marcel Kahan & Ehud Kamar, The Myth of State Competition in Corporate Law, 55 STAN. L. REV. 679 (2002); Lucian Bebchuk & Assaf Hamdani, Vigorous Race or Leisurely Walk: Reconsidering the Competition Over Corporate Charters, 112 YALE L.J. 553 (2002) (Delaware’s powerful incumbency deters active state competition).

<sup>85</sup> William Savitt, The Genius of the Modern Chancery System, 2012 Colum. Bus. L. Rev. 570 (2012); Robert Daines, Does Delaware Incorporation Improve Firm Value? 62 J. FIN. ECON. 525 (2001) (Delaware law enhances shareholder value by as much as 5%); Albert Crenshaw, Delaware, Inc., WASHINGTON POST, May 7, 2000, at \_\_\_; Steven Lipin, Firms Incorporated in Delaware are Valued More By Investors, WALL ST. J., Feb. 28, 2000, at C21. Daniel R. Fischel, The “Race to the Bottom” Revisited: Reflections on Recent Developments in Delaware’s Corporation Law, 76 NORTHWESTERN U.L. REV. 913 (1982).

<sup>86</sup> Michal Barzuza & David Smith, “What Happens in Nevada? Self-Selecting into Lax Law” Rev. Financ. Stud. (2014) (0.1093/rfs/hhu058 published online: September 5, 2014) (finding that Nevada incorporations are significantly more likely to restate earnings than non-Nevada incorporators).

<sup>87</sup> See Manuel Aumann, David Oesch, & Markus Schmid, “Product Market Competition, Corporate Governance, and Firm Value: Evidence from the EU-Area” (Working Paper 2011) (Reviewing Literature)

<sup>88</sup> Guhan Subramanian, “The Disappearing Delaware Effect,” Journal of Law, Economics and Organization (2004) 20 (1): 32-59. Accord Cremers, Martijn and Sepe, Simone M., Whither Delaware? Limited Commitment and the Financial Value of Corporate Law (November 4, 2014) (available at SSRN: <http://ssrn.com/abstract=2519238> or <http://dx.doi.org/10.2139/ssrn.2519238>).

<sup>89</sup> Mark Roe, “Delaware’s Competition,” 117 Harvard Law Review 588 (2003).

suggested that listing on US securities markets is associated with positive price reactions.<sup>90</sup> Some of this literature suggests that a key driver of this market premium comes through “bonding” of foreign firms to the more demanding corporate governance standards in the United States.<sup>91</sup> Although other studies have disputed the channels through which this premium occurs,<sup>92</sup> the bonding hypothesis continues to have significant support in the academic community.<sup>93</sup>

Perhaps a more telling understanding of the value of US incorporation versus US listing lies in understanding the joint relationship between them. Although corporate law and governance have historically been the province of the states, US Securities regulation has increasingly begun to creep into the area, preempting and displacing the mandates of state corporate law. The most significant federal incursions into governance have come as a result of two landmark pieces of legislation (and their implementing regulations): The Sarbanes Oxley Act of 2002 (SOX), and the Dodd Frank Act of 2010 (Dodd-Frank). Consider a sampling of the corporate governance mandates that have resulted principally from these two landmark pieces of legislation (and implementing regulations)

- Internal Controls: Perhaps the most notorious mandate introduced by SOX is a requirement to include in the firm’s annual report assessments by the chief executive officer, chief financial officer, and an outside auditor of the effectiveness of the firm’s internal controls over the accuracy of financial statements.<sup>94</sup>
- Certification of Financial Statements: Chief executive officers and chief financial officers of US issuers are required to certify the accuracy of the firm’s periodic reports, and are subject to criminal penalties for false certifications.<sup>95</sup>
- Executive Compensation Restrictions: Senior officers and directors are now precluded from receiving many types of loans from their corporations.<sup>96</sup> Moreover, such fiduciaries are now

<sup>90</sup> See, e.g., John Ammer Sara B. Holland David C. Smith Francis E. Warnock, Why Do U.S. Cross-Listings Matter? Board of Governors of the Federal Reserve System International Finance Discussion Papers Number 930 May 2008 (reviewing the literature).

<sup>91</sup> See, e.g., Doidge, Craig, Karolyi, G. Andrew, Stulz, Rene M., 2004, Why are foreign firms listed in the U.S. worth more? *Journal of Financial Economics* 71, 205-238 ((arguing that cross-listing in the US reins in expropriation by dominant and controlling shareholders, as well as other agency costs); Coffee, John C. Jr., 1999, The future of history: The prospects for global convergence in corporate governance and its implications, *Northwestern University Law Review* 93, 641-708; Stulz, René M., “Globalization, corporate finance, and the cost of capital,” 12 *J. Applied Corp. Fin.* 8–25 (1999).

<sup>92</sup> Licht, Amir N. and Poliquin, Christopher and Siegel, Jordan I. and Li, Xi, What Makes the Bonding Stick? A Natural Experiment Involving the U.S. Supreme Court and Cross-Listed Firms (August 27, 2013). Harvard Business School Strategy Unit Working Paper No. 11-072. Available at <http://dx.doi.org/10.2139/ssrn.1744905>; Sarkissian, Sergei and Schill, Michael J., The Nature of the Foreign Listing Premium: A Cross-Country Examination (January 29, 2012). Darden Business School Working Paper No. 1639848. Available at SSRN: <http://ssrn.com/abstract=1639848> or <http://dx.doi.org/10.2139/ssrn.1639848>

<sup>93</sup> Moreover, even if the US listing premium is due to forces other than US legal structure (e.g., reputational bonding, or simply the liquidity of US markets), the fact that this benefit is not easily replicated makes it a plausible target for tax levies, as discussed further below.

<sup>94</sup> Securities and Exchange Commission Release No. 33-8238: Management’s Report on Internal Control over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports (Jun. 5, 2003), 68 FR 36636 (Jun. 18, 2003).

<sup>95</sup> See Securities and Exchange Commission Release No. 33-8124: Certification of Disclosure in Companies’ Quarterly and Annual Reports (Aug. 28, 2002), 67 FR 57276 (Sept. 9, 2002).

required to make a significantly more complete disclosure of the elements of their executive pay,<sup>97</sup> as well as a clear exposition of the relationship between executive compensation and the issuer's financial performance.<sup>98</sup> In addition, in the event of an accounting restatement, the CEO and CFO must return to the issuer bonuses, incentive, or equity-based compensation they received prior to the issuance of the restated financials, along with any profits they realized from the sale of corporate stock during that period.<sup>99</sup>

- **Board & Committee Structure:** All publicly traded US firms were required under SOX to have audit committees composed exclusively of independent directors.<sup>100</sup> Later reforms from the exchanges or pursuant to Dodd-Frank required majority independence of public companies' boards,<sup>101</sup> as well as independence of all members of an issuer's compensation committee (and its advisers).<sup>102</sup>
- **Broker Voting of Shares:** Under a 2010 NYSE rule change, broker-dealers are no longer permitted to vote "uninstructed" shares of beneficial owners who have not submitted proxy instructions related to directorial elections.<sup>103</sup>
- **Say on Pay:** Under the Dodd-Frank Act, issuers are required to conduct a non-binding vote of shareholders no less frequently than once every three years to approve the compensation of a public company's named executive officers.<sup>104</sup>
- **Proxy Access:** The SEC was given authority under Dodd-Frank to alter the rules relating to shareholder proxy voting of issuers.<sup>105</sup> Shortly after its passage, the SEC promulgated several proxy access rules related to shareholder proposals and director nominations (although the most potent among them was subsequently challenged and invalidated in the DC Circuit<sup>106</sup>). Left intact, however, was a provision explicitly permitting shareholders to propose bylaw amendments that would require granting nomination power to qualifying shareholders.<sup>107</sup>

<sup>96</sup> SOX § 403.

<sup>97</sup> Securities and Exchange Commission Release Nos. 33-8732A; 34-54302A: Executive Compensation and Related Person Disclosure.

<sup>98</sup> Dodd-Frank § 953.

<sup>99</sup> Sarbanes-Oxley § 304; Dodd-Frank § 954.

<sup>100</sup> SOX § 301.

<sup>101</sup> See Securities and Exchange Commission Release No. 34-48745; File Nos. SR-NYSE-2002-33, SR-NASD-2002-77, SR-NASD-2002-80, SR-NASD-2002-138, SR-NASD-2002-139, and SR-NASD-2002-141 November 4, 2003.

<sup>102</sup> See Securities Act Release No. 9199, Securities Exchange Act Release No. 64149 (March 30, 2011), 76 FR 18966 (April 6, 2011) ("Rule 10C-1 Proposing Release").

<sup>103</sup> Securities and Exchange Commission Release No. 34-62874; File No. SR-NYSE-2010-59 September 9, 2010.

<sup>104</sup> See Section 951 of Dodd-Frank, amending Section 14A of the Securities Exchange Act of 1934 (the "Exchange Act")

<sup>105</sup> Dodd-Frank § 971.

<sup>106</sup> For an analysis of the challenge to Rule 14a-11, see Matthew Spitzer & Eric Talley, "On Experimentation and Real Options in Financial Regulation," *Journal of Legal Studies* (Forthcoming 2014); UC Berkeley Public Law Research Paper No. 2417968.

<sup>107</sup> After initially siding with issuers' attempts to exclude such proposals under the provisions of Rule 14a-8(i)(9) (dealing with proposals that conflict directly with management proposals), the SEC has since retrenched to study the proper scope and application of the section. See Statement from Chair White Directing Staff to Review Commission Rule for Excluding Conflicting Proxy Proposals (Jan. 16, 2015) (available at <http://www.sec.gov/news/statement/statement-on-conflicting-proxy-proposals.html#.VMLqeEfF8ls>).

- CEO / Chair Identities: Public companies are required to disclose whether the same person or different persons holds the positions of CEO and Chairman of the Board.<sup>108</sup>
- Related Party Transactions: Public companies are required to conduct appropriate review and oversight of all related party transactions for potential conflicts of interest.<sup>109</sup>
- Shareholder Dilution: Public companies are required to obtain a shareholder vote before any transaction or issuance of securities that would result in a dilution of shareholders by 20 % or more.<sup>110</sup>
- Whistleblower Protections: The SEC is required to pay bounties (of between 10 and 30 percent of the amount collected) to individuals who voluntarily provide original information leading to the successful SEC enforcement of a violation of federal securities laws resulting in monetary sanctions exceeding \$1 million.<sup>111</sup>

The steady federal incursion on corporate law and corporate governance rules over the last fifteen years has been significant and unprecedented. Both academic commentators and judges have remarked on it at great length throughout this period.<sup>112</sup> And, a lively – if characteristically raucous – debate continues about whether this federal incursion has been positive, negative, or neutral.<sup>113</sup>

While sharp disagreement will no doubt continue to pervade this overall assessment, one thing that is clear is that *regardless of their merits, the new federal mandates described above have decidedly displaced and/or preempted a large swath of state law related to corporate governance.* At the very least, then, the steady federal involvement in corporate governance has itself upended the distinction that business law has traditionally drawn between securities law and corporate law, famously expressed by the US Supreme in the late 1970s:

[W]e are reluctant to federalize the substantial portion of the law of corporations that deals with transactions in securities, particularly where established state policies of corporate regulation would be overridden. Corporations are creatures of state law, and investors commit their funds to corporate directors on the understanding that, except where federal law expressly requires certain

<sup>108</sup> Dodd-Frank Section 972.

<sup>109</sup> SEC (Release No. 34-60094; File No. SR-NASDAQ-2009-049) June 10, 2009 Self-Regulatory Organizations; The NASDAQ Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change to the NASDAQ Listing Rules to Reflect Changes to the Rules of the Commission NASDAQ Rule 5630. Review of Related Party Transactions. See also NYSE Rule 314.0 (requiring review of Related Party Transactions).

<sup>110</sup> NASDAQ Listing Rule 5635; NYSE Listing Rule 312.03 (both amended in 2006). While these rules predated Sarbanes Oxley, both were amended in the years since.

<sup>111</sup> Dodd-Frank Section 922; 17 CFR Parts 240 and 249 [Release No. 34-64545; File No. S7-33-10], codified in 15 U.S.C.A. § 78u-6(b)(1) (West 2010).

<sup>112</sup> See, e.g., Jill Fisch, *The New Federal Regulation of Corporate Governance*, Harvard Journal of Law & Public Policy 28: 39-50 (2004); Roberta Romano, “The Sarbanes-Oxley Act and the Making of Quack Corporate Governance,” 114 YALE L.J. 1521 (2005); Stephen Bainbridge, *Dodd-Frank: Quack Federal Corporate Governance Round II*, 95 Minn L. Rev. 1779 (2011). Leo E. Strine, Jr., *Breaking the Corporate Governance Logjam in Washington: Some Constructive Thoughts on a Responsible Path Forward*, 63 BUS. LAW. 1079, 1081 (2008); Mark J. Roe, *A Spatial Representation of Delaware-Washington Interaction in Corporate Lawmaking*, 2012 Colum. Bus. L. Rev. 553 (2012); Frank H. Easterbrook, “The Race for the Bottom in Corporate Governance,” 95 VA. L. REV. 685, 694 (2009).

<sup>113</sup> Compare Kate Litvak “The Effect of the Sarbanes-Oxley Act on non-US companies cross-listed in the US.” *Journal of Corporate Finance* 13, (2007): 195-228 to Bianconi & Chen, *Cross-Listing Premium and the Sarbanes-Oxley Act* (2011).

responsibilities of directors with respect to stockholders, state law will govern the internal affairs of the corporation.<sup>114</sup>

Nearly forty years (and several Wall Street scandals) later, the Court's resolute pronouncement in *Green* is but a foggy reminiscence – a sepia-toned snapshot from a simpler era in company law history.

The steady march of federal law into corporate governance – for good or for ill – is highly relevant to tax inversion calculus in at least two respects. First, it suggests that the loss of Delaware law simply does not represent the same kind of cost *today* for aspiring inverters that it might have two decades ago, when securities law carried far less weight in dictating the contours of corporate governance. To the extent that federal law has appropriated from Delaware (and other states) large sectors of corporate governance jurisprudence, most of the benefits from domestic incorporation can be retained simply by remaining listed in US securities markets (and thus governed by federal securities laws and implementing regulations).<sup>115</sup>

Second, the availability of US-style corporate governance structures through securities laws (independent of corporate law) effectively undermines the incorporation-centered approach in the US for determining tax residency. In other words, tax status is now no longer mandatorily “bundled” with a company's corporate governance regime. A public company is free to choose its tax jurisdiction largely independent of concerns about governance; it need not accept them (at least from the US) as a conjoined package. And, since the vast majority of US inversions are structured to retain substantial voting control, management, and assets within the US, the surviving entity from an inversion typically remains subject to the same set of federal securities mandates as was its US-incorporated forebear.<sup>116</sup> As I demonstrate in

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<sup>114</sup> *Santa Fe Industries, Inc. v. Green*, 430 US 462 (1977).

<sup>115</sup> It bears noting that while the incremental colonization of corporate governance by federal law has been substantial, it has not been universal. One domain where state law arguably retains considerable *mojo* is in the treatment of anti-takeover measures (such as poison pills, staggered boards, break fees, and the like). Here, Delaware remains an important source of antitakeover jurisprudence. Consequently, inverting American MNCs may find themselves subject to unfamiliar foreign jurisdictional treatment of antitakeover devices, most notably through anti-takeover panels common in Europe.

Even so, the specter of forsaking Delaware anti-takeover law may be tolerable—and even trivial—for many aspiring US inverters. First, controlled US targets that remain controlled after the inversion transaction have little need for anti-takeover protections to begin with. Second, in some prominent inversion destinations (such as the UK), the surviving entity may be able to sidestep jurisdiction of the takeover panel by remaining listed in the US and not in the foreign jurisdiction. See, e.g., the UK Panel on Takeovers and Mergers, Takeover Code § A3: Companies, Transactions and Persons Subject to the Code (<http://www.thetakeoverpanel.org.uk/wp-content/uploads/2008/11/code.pdf>). But see Irish Takeover Panel Act of 1997, Takeover Rules and Substantial Acquisition Rules of 2013 at § T3: Companies and Transactions to Which the Act, The Regulations and the Rules Apply (<http://irishtakeoverpanel.ie/wp-content/uploads/2014/01/ITP-Takeover-Rules.pdf>) (directing that even solely US-exchange-traded Irish companies are subject to the panel's jurisdiction). Third, much of the action in antitakeover activity in the US has shifted over the last decade to proxy contests, an area that has long been governed disproportionately by federal securities law. And finally, recent legal scholarship has raised new questions about whether federal law could be interpreted to preempt many of Delaware's most historically important takeover rules. See, e.g., Subramanian, Guhan, Steven Herscovici, and Brian Barbetta, “Is Delaware's Antitakeover Statute Unconstitutional? Evidence from 1988-2008” 65 *Bus. Lawyer* 685 (2010); Bebchuk, Lucian & Robert Jackson, “Toward a Constitutional Review of the Poison Pill,” 115 *Columbia L. Rev.* 1549 (2014).

<sup>116</sup> Under US securities law, foreign-incorporated companies listed in the US may, under some circumstances, be exempt from certain federal governance and disclosure mandates if deemed to be “Foreign Private Issuers” (FPIs)

the next section, the federal unbundling of tax from corporate governance can have significant implications for regulatory competition – implications that bear centrally on the inversion invasion, and how best to address it.

#### IV. *Inversions through the Lens of Regulatory-Competition Theory*

This section moves away from the practical details of tax inversions, and into a conceptual and analytic assessment of the role that inversions play on a larger policy stage: regulatory competition. Specifically, I develop and analyze a framework that builds on (and in some ways extends) the regulatory competition literature<sup>117</sup> to study competitive dynamics when jurisdictions install and offer multi-attribute regulatory products. My attention – unsurprisingly – will highlight two such attributes: tax policy and corporate governance regulations. Specifically, I will consider conditions under which jurisdictions offering packages of tax and governance regulations may differentiate themselves from one another, and what implications such differentiation has for responding (if at all) when firms enjoy some mobility. Although the analysis below explores a specific, numerical example, with a variety of simplifying assumptions, the example is surprisingly adaptable to far more generalized (and technically complicated) settings, yielding qualitatively similar conclusions.<sup>118</sup>

Several central intuitions emerge from this analysis. First, I demonstrate that when jurisdictions are able to bundle tax and governance regulations, they will tend to differentiate themselves in their offerings, with some jurisdictions serving as market “leaders” in governance while others serve as market

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for purposes of securities law. See Rule 405 of Regulation C, Exchange Act Rule 3b-4, 17 CFR 230.405. The exemptions include more liberal disclosure mandates, exemptions from most proxy rules, and greater flexibility in choice of accounting regime. For most US inverters, however, FPI status is not a realistic option for the surviving entity, since it requires, *inter alia*, a majority of voting shareholders to be non-US residents, a majority of directors (as well as a majority of executive officers) to be non-US citizens and non-US residents, a majority of assets to be located outside the US, and the company’s locus of business administration to be outside the United States. Moreover, the predicate conditions for FPI status must be reestablished on an annual basis. *Id.* For an overview of the FPI rules, see Securities and Exchange Commission, Division of Corporate Finance, “Accessing the U.S. Capital Markets — A Brief Overview for Foreign Private Issuers,” (Feb. 13, 2013) (available at <http://www.sec.gov/divisions/corpfin/internatl/foreign-private-issuers-overview.shtml>).

<sup>117</sup> The analysis below tracks the general approach in framework for regulatory competition developed in Gillian Hadfield & Eric Talley, “On the Private Provision of Corporate Law,” 22 J. LAW, ECON. & ORG 414 (2006) (reviewing the corporate law regulatory competition literature); Joel Slemrod & John D. Wilson, “Tax Competition with Parasitic Tax Havens,” NBER Working Paper 12225 (2006) <http://www.nber.org/papers/w12225> (reviewing the tax competition literature). See also Richard Revesz, “Rehabilitating Interstate Competition: Rethinking the ‘Race to the Bottom’ Rationale for Federal Environmental Regulation,” 67 NYU Law Rev. 1210 (1992) (situating regulatory competition in environmental contexts). However, here I situate the analysis differently, drawing inspiration from more general theories of oligopolistic competition in multidimensional product space. See, e.g., Andrew Caplin and Barry J. Nalebuff, “Multi-dimensional Product Differentiation and Price Competition,” *Oxford Economic Papers*, 1986, vol. 38, pages 129-45; Andrew Caplin and Barry J. Nalebuff, “Aggregation and Imperfect Competition: On the Existence of Equilibrium,” *Econometrica*, Vol. 59, No. 1 (Jan., 1991), pp. 25-59; Avner Shaked and John Sutton, “Relaxing Price Competition Through Product Differentiation,” *Review of Economic Studies*, Vol. 49, No. 1 (Jan., 1982), pp. 3-13.

<sup>118</sup> The model introduced in the text below is deliberately kept simple for the sake of exposition. Extensions to it are discussed in succeeding subsections, and the appendix to this paper offers a more generalized analysis for curious (and masochistic) readers.

“laggards.” Second, jurisdictions that enjoy a position as market leaders will rationally attempt to capture the value they have created through their tax policies, and will therefore appear less competitive in their tax treatment of domestic firms. Third, because of their market power in governance, leaders can afford to moderate their responses to tax competition from other jurisdictions, and thus a market leader need not be drawn into “ruinous” forms of tax competition. Rather, a leader’s optimal response to another jurisdiction’s aggressive tax policies may be muted, possibly substantially. Fourth, to the extent a leader jurisdiction responds to intense tax competition by other jurisdictions, it may choose to do so not simply by altering its tax policy, but by adjusting other regulatory attributes (such as corporate governance quality). Finally (and significantly), the advantageous strategic position that a jurisdictional leader in governance enjoys persist only insofar as the tax and governance attributes offered by the leader remain “bundled” – i.e., firms must be forced to accept the leader’s tax policy as they embrace its governance rules, and they cannot selectively build a medley of the best pieces of different jurisdictions’ regulatory frameworks. Unbundling tax from governance (as I argue has happened through US securities law) not only negates the leader’s market power, but it likely induces an inefficient reduction in differentiated governance regimes – a clear negative when firms have heterogeneous needs and capabilities.

*a. Framework and Preliminaries*

Consider a population of for-profit corporate entities (“firms”) that make strategic decisions about their regulatory home. To ease exposition, the total size of the population of entities is normalized to be 1 (although any other normalization would work too<sup>119</sup>). For purposes of current discussion, suppose each firm chooses among “bundled” regulatory goods, and that its chosen jurisdiction commits it both to that jurisdiction’s corporate governance rules and its tax policies.<sup>120</sup> Each firm in the population is assumed to generate baseline “gross” profit of  $\underline{\pi} > 0$ , which is assumed constant across all firms. That said, a firm’s *net* payoff is subject to both upward and downward revisions away from this baseline as a byproduct of the regulatory environment it selects. Accordingly, I assume that firms in the population choose their regulatory environment in order to maximize firm value *net* of such revisions to their baseline.<sup>121</sup>

To focus on the most basic ingredients of regulatory competition, I assume that there are two jurisdictions – Jurisdiction 1 (or “ $J_1$ ”) and Jurisdiction 2 (or “ $J_2$ ”), which compete with each other for incorporations and resulting tax revenue. The jurisdictions are interested in maximizing their tax revenues less the administrative cost of building and maintaining their regulatory structure.

<sup>119</sup> For example, if there were 38,000 firms in the population, then one need only multiply the all of the total revenue numbers below by 38,000. Normalizing the market size to 1 economizes on notation with no loss in generality.

<sup>120</sup> In this baseline model, I assume these two choices are necessarily bundled, and moreover I assume that all the taxes an entity pays are determined by its state of incorporation. Both assumptions are easy to relax without changing any of the important insights. A later subsection will return to this caveat and demonstrate how the model can accommodate it.

<sup>121</sup> The alert reader will note that a firm’s choice of regulatory environment may itself be subject to agency costs, so that a firm’s choice of regulatory environment may not fully reflect an aim to maximize firm value. See, e.g., Bar Gill and Bebchuk \_\_\_\_\_. Although this argument is not the core focus of this article, the framework introduced below is capable of folding in agency costs in the choice of incorporation as well. Such concerns might be reflected, say, by firms that have lower values of the variable denoted as  $\theta$  below. See TAN \_\_\_\_ - \_\_\_\_, *infra*.

As noted above, regulatory competition plays out through a bundle of regulatory attributes offered by each jurisdiction to firms that are incorporated there, which I denote as  $\{x_1, \tau_1\}$  and  $\{x_2, \tau_2\}$ , for the respective jurisdictions. The terms  $\tau_1$  and  $\tau_2$  are the *tax elements* of regulatory competition, and they represent the per-firm tax levies imposed by each respective jurisdiction on firms it regulates.<sup>122</sup> Intuitively, higher values of  $\tau_1$  and  $\tau_2$  correspond to larger per-firm tax levies in the respective jurisdiction. Tax levies are normalized to be non-negative (and thus  $\tau_1 \geq 0$  and  $\tau_2 \geq 0$ ).<sup>123</sup>

The terms  $x_1$  and  $x_2$  embody the *non-tax elements* of corporate regulation, to which I refer collectively as the “corporate governance” attributes of each jurisdiction. These variables embody canonical corporate law / regulation commitments thought to affect firm value (such as minority shareholder protections, fiduciary duties, judicial quality, board structure, shareholder governance rights, network externalities, and the like). Although the framework developed below is general enough to analyze corporate governance as a set (or vector) of traits, for simplicity I suppose that all relevant traits can be collapsed into a single, scalar numerical value ( $x_1$  and  $x_2$ ). In this vein, larger values of  $x_1$  and  $x_2$  correspond to “better” packages of corporate governance rules. Like tax levies governance regimes are normalized to be non-negative: i.e., values of  $x_1$  or  $x_2$  set equal to 0 correspond to the minimal possible effort by the jurisdiction to build a value-creating governance framework.

Although taxes play an obvious role in a firm’s profitability, it is important to acknowledge that governance matters too. Indeed, a growing (and already sizeable) literature in empirical corporate finance over the last decade has made a persuasive case that “good” corporate governance can and frequently does reduce intra-firm agency costs, enhancing shareholder value.<sup>124</sup> At the same time, neither theory nor empirical evidence suggests that “good governance” has the homogenous effects across all firms. For some firms, the ability to commit (or bond) into a strong governance scheme can be highly valuable. In other firms, governance is less prized.<sup>125</sup>

Accordingly, in what follows I suppose that the value of good corporate governance varies among firms. In particular, suppose the responsiveness of firm value to governance structure can be summarized as a point on a scale ranging from a low of 0 (unresponsive) to a high of 1 (maximally responsive). A firm’s position on this scale (the firm’s “type”) is denoted by the variable  $\theta$ , which is simply a point on the unit scale between 0 and 1. To capture the interaction between the jurisdiction’s corporate governance

<sup>122</sup> Expressing taxes in terms of total tax levy (rather than rates) makes the analysis somewhat straightforward without altering the core intuitions. Interested readers can consult the appendix to see how the model could be adapted to analyze rates rather than levels.

<sup>123</sup> This is little more than a normalization, since subsidies received in the jurisdictions can be represented by adjusting the value of  $\pi$  upwards.

<sup>124</sup> See TAN \_\_-\_\_, supra; see also Gompers, Paul A., Ishii, Joy L., & Metrick, Andrew, “Corporate Governance and Equity Prices.” *Quarterly Journal of Economics*, Vol. 118, No. 1, February 2003. See also Lucian Bebchuk, Alma Cohen & Allen Ferrell, “What Matters in Corporate Governance?” *Review of Financial Studies* (2004).

<sup>125</sup> This latter group may include firms for which governance is in principle value-enhancing, but agency costs or private benefits of control swamp those benefits in affecting incorporation decisions. See TAN \_\_, supra. In fact, as shown in the appendix, the framework presented here extends easily allowing some/all firms to place a *negative* value on governance (i.e.,  $\theta < 0$ ). See Appendix, *infra*.

regulation ( $x_i$ ) and the firm's type ( $\theta$ ), a firm can increase its value beyond its baseline by  $\theta \cdot x_i$ . I assume that firms' types are uniformly distributed in the population between extreme endpoints of 0 and 1.<sup>126</sup>

Given that all firms value corporate governance to some degree (and thus would be willing to pay for it), jurisdictions may naturally be interested in offering high-quality governance regulation. However, strong regulatory regimes require resources to build and maintain. In particular, I suppose that for both jurisdictions, installing corporate governance institutions requires expending real resources – expenditures that become less effective (i.e., have decreasing returns to scale) as the state's corporate governance protections grow. In particular, suppose that installing a corporate governance structure of ( $x_i$ ) necessitates an expenditure of  $\frac{1}{2}(x_i)^2$  for Jurisdiction  $i$  (where  $i=1,2$ ).

In order to capture the idea that Delaware holds a dominant position in the arena of corporate governance, I assume that  $J_1$  has an incumbency advantage over  $J_2$ , and therefore enjoys a first-mover advantage in installing its governance regime ( $x_1$ ) before  $J_2$  chooses its own regime ( $x_2$ ). In this sense, the incumbent jurisdiction effectively establishes a beachhead in regulatory space to which the entrant jurisdiction must attempt profitably to respond. The second mover ( $J_2$ ) must consequently choose whether to emulate the incumbent or to differentiate itself with a distinct governance regime. Once both jurisdictions have each committed to a governance regime, they simultaneously set the terms their tax regime ( $\tau_1$  and  $\tau_2$ ). Thus, jurisdictions are presumed to compete on tax dimensions only after they have installed their governance regimes. This sequence is deliberate, and it is meant to capture the idea that governance regimes are more complex to build – and harder to dismantle – than a simple change in the magnitude of corporate taxes levied. The sequential structure of the model is illustrated in Figure 5.

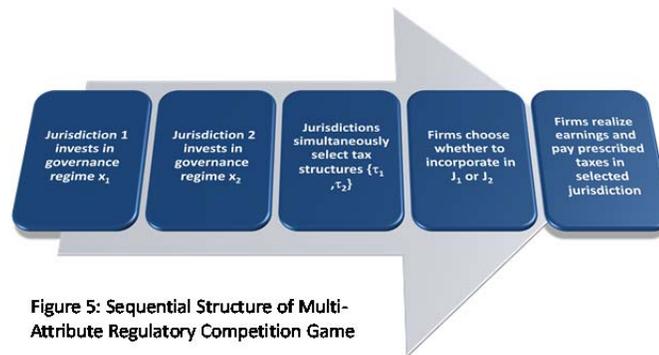


Figure 5: Sequential Structure of Multi-Attribute Regulatory Competition Game

Reiterating, the analysis at this stage makes two critical assumptions: (a) that each jurisdiction's regulatory offerings are mandatorily "bundled," and thus firms cannot assemble hybrid regulatory structures, adopting the tax attributes of one jurisdiction and the governance attributes of another; and (b) that the competing jurisdictions endeavor to maximize their expected tax revenues net of their costs of installing their regulatory corporate governance structure. I will explicitly relax each of these assumptions in a later subsection; indeed, doing so will help to illustrate some of the key points for my argument.

<sup>126</sup> Although this in some ways a restrictive assumption, it is easily generalizable to any distribution over  $\theta$ , or  $F(\theta)$ , that satisfies the (so-called) "monotone hazard rate" property in both directions. For details, see the appendix.

*b. Solving the Game (Equilibrium)*

With this structure in mind, I now proceed to solve the game by standard backwards induction techniques, beginning with the final stage, with the firms' choice of regulatory regime. Therefore, consider first the final strategic stage of the game, where firms choose their governance regime from among the two providers that have already selected their regulatory packages. For a firm of type  $\theta$ , the expected payoffs from incorporating in Jurisdictions 1 and 2 (respectively) consists of: (a) the firm's baseline profits, *plus* (b) the value contributed by chosen jurisdiction's corporate governance regime, *less* (c) the tax levy imposed by the chosen jurisdiction. These payoffs can be represented by the following expressions:

$$\text{Firm's payoff from incorporating in } J_1: \Pi(x_1, \tau_1 | \theta) = \underline{\pi} + \theta \cdot x_1 - \tau_1$$

$$\text{Firm's payoff from incorporating in } J_2: \Pi(x_2, \tau_2 | \theta) = \underline{\pi} + \theta \cdot x_2 - \tau_2$$

A profit-maximizing firm will simply choose the jurisdiction that offers it a package of governance and tax resulting in the larger of the above payoffs.

Comparing the above expressions, it becomes immediately clear that were the two jurisdictions to offer identical governance regimes ( $x_1 = x_2$ ), then all firms (regardless of type) would flock *en masse* to the jurisdiction imposing the lowest taxes. Thus, if (say) Jurisdiction 2 were charging a tax levy of \$100,000, Jurisdiction 1 could steal the entire incorporation market by imposing a levy of \$99,999. Anticipating this competition, of course, Jurisdiction 2 would reduce its levy further, and so forth, all the way to the point where there is no profitable deviation left, and both jurisdictions impose a tax levy of zero.<sup>127</sup> This logic gives rise to the following intuitive proposition:

*Proposition 1: When jurisdictions offer identical corporate governance regulations, competition in tax rates will enter a ruinous "death spiral", driving firm-level tax levies as well as total tax revenues in both jurisdictions to zero.*

The intuition embodied in Proposition 1 reflects what many perceive to be the largest concern in the current inversion wave – that it has catalyzed a ruinous form of competitive death spiral, which will inevitably drive tax rates across all jurisdictions to zero. It will also, by implication, drive total tax *receipts* to zero in both jurisdictions, a factor that may deter jurisdictions offering copycat corporate governance regimes to begin with (as explored below).<sup>128</sup>

Now consider the situation where the competing jurisdictions differentiate their corporate governance regimes (so that  $x_1 \neq x_2$ ). Suppose (somewhat arbitrarily) in what follows that  $x_1 > x_2$  and thus

<sup>127</sup> This is a version of the well-known "Bertrand paradox" from industrial organization, which states that when two or more firms engage in pure price competition with no capacity constraints and bounded monopoly profits, the only equilibrium (in pure or mixed strategies) consists of marginal-cost pricing. Harrington, J., "A Re-evaluation of Perfect Competition as the Solution to the Bertrand Price Game," *Mathematical Social Sciences* (1989) 17, pp. 315-328. Here, when  $J_1$  and  $J_2$  offer the same corporate governance rules, all of these conditions are met. The marginal cost of providing a pre-existing established regulatory regime is zero (and therefore so is the tax levy).

<sup>128</sup> Cite to FT

the incumbent jurisdiction is the corporate governance “leader” offering strongest governance protections (the analysis of the case where  $x_1 < x_2$  is entirely symmetric<sup>129</sup>). When jurisdictions have differentiated governance regulations, choosing between them involves comparing *both* corporate governance and tax attributes of each. Once again revisiting and comparing the expressions above, a representative firm of type  $\theta$  is willing to incorporate in  $J_1$  if and only if its expected payoff from  $J_1$  exceeds its expected payoff from  $J_2$ , which is equivalent to the following choice condition:

$$\text{Choose } J_1 \text{ over } J_2 \text{ if and only if: } \theta \geq \theta^* \equiv \frac{\tau_1 - \tau_2}{x_1 - x_2}$$

In other words, the corporate governance leader (assumed provisionally to be  $J_1$ ) will be systematically the most attractive – all else constant – to the firms whose valuations are relatively responsive to strong governance rules – or in terms of the model, with high values of  $\theta$  that exceed a critical cutoff value,  $\theta^*$ , as defined above.

There are a few noteworthy features that emerge from the above choice condition. First, because firm types are distributed uniformly, the jurisdictions’ market shares for incorporations can be tidily summarized by  $\theta^*$ , so long as  $0 < \theta^* < 1$ . Specifically, the corporate governance leader ( $J_1$  here) will capture a  $(1 - \theta^*)$  share of the market, while the laggard ( $J_2$  here) will capture the remaining  $\theta^*$  share. Second, note from the above expression that whenever the jurisdictions split the market (i.e., when  $0 < \theta^* < 1$ ), it must be the case that the leader imposes a higher tax than the follower – i.e.  $(\tau_1 - \tau_2) > 0$ . Finally, although it is not obvious *a priori*, it turns out that in any equilibrium of this game,  $\theta^*$  will be between 0 and 1 (and thus the jurisdictions divide the market).<sup>130</sup> Indeed, unlike competing oligopolists in a production market (who generally must cover their marginal costs of production), with regulatory competition the predominant costs for the jurisdiction are fixed (building the system), and the governance regulations can be provided to one more incorporating firm at effectively zero (or very low) marginal cost. Consequently, should either jurisdiction find itself excluded entirely from the market by a competitor charging a positive price, there will be a way for it to respond profitably in equilibrium through aggressive tax cuts or better governance regimes, recapturing some market share. Therefore, in any plausible equilibrium of the tax competition stage, it will be the case<sup>131</sup> that  $0 < \theta^* < 1$ . Collectively, these observations give rise to a second proposition:

*Proposition 2: When jurisdictions offer differentiated corporate governance regulations, they will in equilibrium split the market and impose differentiated taxes as well, with the corporate governance leader imposing a tax premium relative to the corporate governance laggard.*

Moving backwards, consider next the equilibrium of the tax game. The governance leader and laggard each simultaneously choose a tax to impose in a manner that maximizes its expected tax revenues weighted by the market share captured by the jurisdiction (holding constant the other jurisdiction’s conjectured imposed tax). Equivalently, the jurisdictions’ respective taxation problems are as follows:

<sup>129</sup> As will become apparent below, the incumbent firm will generally have an incentive to select the most protective corporate governance.

<sup>130</sup> This turns out no longer to hold when tax law and corporate governance are “unbundled” – a key argument of this paper. See TAN \_\_ - \_\_, *infra*.

<sup>131</sup> See the Appendix for a more formal proof of this claim.

$$J_1\text{'s Taxation Problem: } \underset{\tau_1 \geq 0}{\text{Max}} \tau_1 \cdot (1 - \theta^*) = \underset{\tau_1 \geq 0}{\text{Max}} \tau_1 \cdot \left(1 - \frac{\tau_1 - \tau_2}{x_1 - x_2}\right)$$

$$J_2\text{'s Taxation Problem: } \underset{\tau_2 \geq 0}{\text{Max}} \tau_2 \cdot \theta^* = \underset{\tau_2 \geq 0}{\text{Max}} \tau_2 \cdot \left(\frac{\tau_1 - \tau_2}{x_1 - x_2}\right)$$

From the above maximization problems, one can derive a (so-called) “best response correspondence” (or BRC) for each jurisdiction.<sup>132</sup> The BRC addresses simple question: for each possible conjectured tax levy that the “competing” jurisdiction might impose, what is the optimal, revenue-maximizing tax levy to charge in response?

Figure 6 below plots the BRCs for each jurisdiction on the same axis. In the Figure,  $J_1$ 's imposed tax is represented by the vertical axis, and  $J_2$ 's by the horizontal axis. As can be seen from the figure, each of the jurisdictions imposes a tax levy that is partially (but not completely) responsive to its competitor's. Jurisdiction 2 (the governance laggard), for example, always charges half the tax it conjectures  $J_1$  will impose. In contrast,  $J_1$  (the leader) charges a strictly positive baseline tax (of  $\frac{1}{2}(x_1 - x_2)$ ) regardless of what  $J_2$  imposes, *even* if it conjectures that  $J_2$  will impose a tax of zero. Above that level,  $J_1$  increases its tax by it by 50 cents for every dollar of conjectured increase by  $J_2$ .

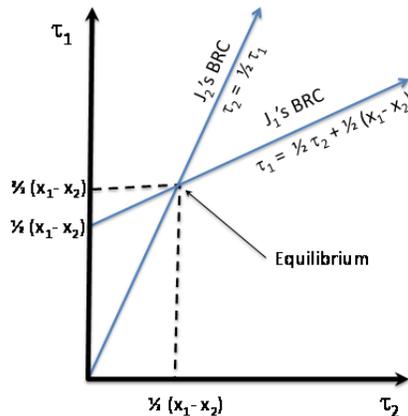


Figure 6: Best Response Correspondences in Taxation Competition Stage

Moreover, as Figure 6 reveals, there is a unique point where the levied taxes are the mutual best responses of one another – i.e., the point where the BRCs of each jurisdiction intersect. This is the equilibrium of the taxation stage of the game. It corresponds to the point where the each jurisdiction is playing a best response to its opponent, and thus there is no reason for either to change. In the above example, the taxation equilibrium corresponds to a tax imposed by the leader of  $\frac{2}{3}(x_1 - x_2)$ , whereas the laggard imposes a smaller tax levy of  $\frac{1}{3}(x_1 - x_2)$ . Note from this equilibrium that the jurisdictions always split the market, with resulting market shares of  $\theta^* = \frac{1}{3}$  for the laggard and  $(1 - \theta^*) = \frac{2}{3}$  for the leader. At

<sup>132</sup> The BRCs are derived from partially differentiating  $J_1$ 's and  $J_2$ 's expected payoff in the taxation game with respect to  $\tau_1$  and  $\tau_2$ , respectively, and setting each partially derivative equal to zero. Because the expected payoff functions are strictly concave, the solutions to those first order conditions will be maxima.

these equilibrium tax levies, the laggard and leader will realize expected tax revenues of  $\frac{1}{9}(x_1-x_2)$  and  $\frac{4}{9}(x_1-x_2)$ , respectively.

*Proposition 3: When jurisdictions have differentiated corporate governance rules, the unique equilibrium in the taxation stage involves positive levies by both jurisdictions. Moreover, the taxes imposed and total tax revenues in both jurisdictions grow as the corporate governance offerings become increasingly distinct. Both jurisdictions enjoy strictly positive payoffs.*

A noteworthy feature of the tax equilibrium described in Proposition 3 is that the taxes levied and total tax revenues for the jurisdictions grow as the magnitude of differentiation (captured by  $(x_1-x_2)$ ) increases. This effect is even true for the corporate governance *laggard*, who stands to collect greater tax revenues the *worse* its governance regime becomes relative to the leader's. The reason for this seemingly counterintuitive effect is simple, and it is an artifact of oligopolistic market dynamics more generally: when the extent of product differentiation grows in any market, the providers are less likely to be competing for the same users. The leader tries to extract higher levies from firms that value governance highly (i.e., the high  $\theta$  types), making its product more expensive and less attractive to low- and moderate valuers. Since the laggard is the only other choice available, it is also able to raise its levy modestly as well without losing market share.

As noted above, although the foregoing analysis has presumed that  $J_1$  was the leader in corporate governance (and thus  $x_1 > x_2$ ), the analysis is identical if  $J_1$  were the laggard. In either case, what is clear from the above discussion is that both jurisdictions are decidedly better off when they offer differentiated governance regulations as opposed to when they emulate one another (and a ruinous race to the bottom ensues). Consequently, it is clear that absent a coordination failure, the jurisdictions will offer differentiated regulatory structures. The one remaining question concerns which jurisdiction emerges as the leader and which becomes the laggard.

Accordingly, let us step back in the sequence once more, in order to determine how the jurisdictions will select their corporate governance rules. Here, as noted above, the model assumes a strategic advantage for  $J_1$ , viewing it as somewhat akin to Delaware's incumbency status in the corporate governance world. Although this incumbency could take on numerous instantiations in this model (e.g.,  $J_1$  might face a lower marginal cost of installing governance than  $J_2$ ), I capture the effect here by giving  $J_1$  a first mover advantage over  $J_2$  in setting its governance structure. Recall that installing corporate governance ( $x_i$ ) imposes a cost on either jurisdiction of  $\frac{1}{2}x_i^2$ , which drags down gross tax revenues that the jurisdiction will collect in the taxation game (more so for the leader than the laggard).

Thus, consider the strategy of  $J_2$ , after  $J_1$  has committed to a governance structure of  $x_1 \geq 0$ . Jurisdiction 2 will attempt to compute its best strategy in two contingencies: (a) it lags, installing governance rules  $x_2 < x_1$  at a cost of  $\frac{1}{2}x_2^2$ , thereby generating gross tax revenues of  $\frac{1}{9}(x_1-x_2)$  as per the discussion above; or (b) it leapfrogs  $J_1$  to lead, installing governance rules  $x_2 > x_1$  again at a cost of  $\frac{1}{2}x_2^2$ , and generating gross tax revenues of  $\frac{4}{9}(x_2-x_1)$ .

Should  $J_2$  choose to lag, its optimal strategy is counterintuitively simple: It should adopt the most lax (i.e., the "worst") governance scheme possible, setting  $x_2=0$ , which it can implement at no cost. The reasoning here is closely related to the discussion surrounding Proposition 3 above – so long as  $J_2$  is destined to be a laggard, its tax revenues (as well as the leader's) increase the more it differentiates itself

from the leader's regime – even if that differentiation is in the downward direction. Thus, reducing  $x_2$  not only increases  $J_2$ 's equilibrium revenues in the tax stage, but it also reduces her total up-front costs of installing governance to begin with. And, the maximal degree to which  $J_2$  can differentiate itself as a laggard is to “go big” (as it were), setting  $x_2=0$ , and securing a payoff for itself equal to  $1/9(x_1 - 0) = 1/9(x_1)$ . (Note once again that this payoff increases as  $J_1$ 's governance regime improves.)

Should  $J_2$  attempt to lead, in contrast, it will select a governance structure  $x_2 > x_1$  that maximizes its tax revenues ( $4/9(x_2 - x_1)$ ), less its up-front costs of implementing that structure ( $1/2x_2^2$ ). Here, it is easy to confirm<sup>133</sup> that  $J_2$ 's optimal choice is to set  $x_2 = 4/9$ , which generates net tax revenues equal to  $4/9(x_2 - x_1) = (16/81 - 4/9x_1)$ . Note here that  $J_2$ 's payoff as a leader *decreases* as  $J_1$ 's installed level of governance improves (and thus becomes less differentiated from and more competitive with  $J_2$ 's).

Comparing this payoff to the profit maximizing from becoming a laggard, then, it is clear that  $J_2$  will choose to become a leader only if  $J_1$  has not installed a level of governance that is “too high” to make it unprofitable for  $J_2$  to become a governance leader. In this example specifically, this means that  $J_2$  will become a leader only if  $J_1$  chooses a relatively lax governance regime, so that  $x_1 < 16/45$ .

Finally, we step back to the beginning of the game to determine how the first mover,  $J_1$ , will design its governance structure. From the analysis above, it is clear that if  $J_1$  installs any value  $x_1 < 16/45$ , it will induce  $J_2$  to lead, and it will become the laggard. Similar to the above analysis, the highest attainable payoff for  $J_1$  if it wishes to be a laggard is to set  $x_1=0$ , generating a net payoff for  $J_1$  of  $1/9(x_2 - x_1) = 4/81$ . In contrast, if  $J_1$  selects any  $x_1 > 16/45$ ,  $J_2$  will be content to lag, setting  $x_2=0$ . Here, similar to the analysis for  $J_2$  above,  $J_1$  will optimally set  $x_1 = 4/9$ , charging a levy of  $2/3(x_1 - x_2) = 8/27$ , and generating net tax revenues of  $4/9(x_1 - x_2) = 4/9(4/9 - 0) = 16/81$ . Because this payoff is four times that which  $J_1$  would realize as a laggard, it is clear that  $J_1$  will use its first-mover advantage to become a governance leader. The foregoing discussion is summarized in the following Proposition:

*Proposition 4: The unique equilibrium behavior in this game involves differentiated bundles of governance regime and tax levy, in which the incumbent / first mover becomes a governance leader, installing a relatively high quality of governance, and the entrant / second mover becoming a laggard, installing the lowest quality of governance possible. The leader and laggard divide the market, and both impose positive tax levies on incorporating firms, with the leader imposing a tax premium over the laggard.*

One socially beneficial aspect of the equilibrium described in Proposition 4 is the fact that the jurisdictions effectively tailor their offerings to different types of firms. In so doing, they deliver higher social value (even if extracting more tax) to firms whose ideal forms of governance structure is not homogenous. I return to this point later in this section.

### c. Robustness

Although the discussion above completes the discussion of the model's equilibrium, the framework above has developed its core intuitions in a relatively simplified setting, with particular assumptions about structure, players, payoffs, sequence, and so forth. It is important to understand how

<sup>133</sup> The result comes immediately from setting  $J_2$ 's marginal revenues from increasing  $x_2$  (or  $4/9$ ) equal to its marginal costs ( $x_2$ ).

critical these simplifications are for the analysis – in fact, many of the core arguments in this paper are exposed only through relaxing several of these assumptions. I therefore turn for the remainder of this section to a series of extensions to the baseline model that explore the robustness of the arguments above to alternative strategic environments.

(i) Greater Dimensionality of Governance

One potential extension to the model would be to expand the dimensionality of “governance” regimes. In the baseline model above, the competing jurisdictions’ choice of governance regime was effectively a scalar. However, governance is itself a multidimensional phenomenon, and Jurisdiction  $i$ ’s governance regime might better be viewed as a “vector” of instruments. For example, suppose each jurisdiction could separately install a level of “judicial quality” ( $y_i$ ) independent of “minority shareholder protections” ( $z_i$ ). Now each of jurisdictions 1 and 2 would offer a package with three attributes –  $\{y_1, z_1, \tau_1\}$  and  $\{y_2, z_2, \tau_2\}$ , respectively. Other dimensions (or additional subdivisions of the above) are possible as well.

It turns out that greater dimensionality in governance is easily handled in the model. As in the baseline case above, if firms have differentiated preferences among different dimensions of governance, then much turns on whether there are significant complementarities (or synergies) in installing and maintaining the various governance attributes. When such complementarities are present, very little changes from above. Conversely, in the absence of such complementarities, it could turn out that  $J_1$  and  $J_2$  differentiate themselves as different “types” of leaders along different dimensions, say with  $J_1$  leading in judicial quality and  $J_2$  leading in minority protections. Nevertheless, the notion that the jurisdictions differentiate from one another in their bundled offerings – ultimately serving different market segments – remains intact.

(ii) More Competing Jurisdictions

Another extension concerns the addition of more jurisdictions beyond  $J_1$  and  $J_2$ . For example, how would the inclusion of, say, a third or fourth jurisdiction alter the equilibrium results? As demonstrated in the appendix, the core insights from the two-jurisdiction case remain (with some caveats). First, even when there are  $N > 2$  jurisdictions in competition, no two jurisdictions will emulate one another’s corporate governance rules. So doing would immediately invite ruinous tax competition between those two jurisdictions, driving their gross revenues to zero (along with all those with inferior governance regimes). Consequently, all jurisdictions will embrace differentiated governance and tax regimes, effectively dividing the market into  $N$  segments, in a manner that stratifies the population according to the firms’ susceptibility to good governance (the value of  $\theta$ ). For example, extending the analysis above to *three* jurisdictions, and assuming (as above) the jurisdictions continue to choose their governance structure sequentially (starting with  $J_1$ , then  $J_2$ , then  $J_3$ ), the unique equilibrium strategies and payoffs<sup>134</sup> are as depicted in the table below:

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<sup>134</sup> For the derivations underlying this table, see the Appendix.

	$\tau_i$	$x_i$	<i>Mkt. Shr.</i>	<i>Net Rev.</i>
$J_1$	0.098897	0.24095	54.00%	0.024374
$J_2$	0.014645	0.05780	33.33%	0.003212
$J_3$	0.007323	0.00000	12.67%	0.000928

As in the two-jurisdiction case, the early movers establish themselves as “leaders” in a manner that matches the sequence of jurisdictional choices. Accordingly, the last mover will serve the market as the laggard, setting  $x_N=0$  just like the baseline model.

A notable change introduced by the inclusion of  $N > 2$  jurisdictions is the emergence of “middling” governance providers ( $J_2$  in the three-jurisdiction case) who sit below the leader and above the laggard in their offerings. For middling jurisdictions, tax strategy is slightly more complicated, since a change in tax levels now interacts on the margin with competitors on either “side” of the middling jurisdiction. Consequently, for such jurisdictions, tax changes will tend to play a more powerful role in building (or losing) market share, and they will therefore respond somewhat more vigorously to price changes among their immediate neighbors.

Perhaps more interesting is the effect that additional competition has on jurisdictional heterogeneity. Somewhat surprisingly, the addition of a third jurisdiction actually *reduces* the range of governance options that firms have available to them. In particular, the leader jurisdiction ( $J_1$ ) now optimally installs  $x_1=0.24095$  (rather than 0.44444 as in the baseline case), charges a levy  $\tau_1 = 0.098897$  (rather than 0.29630), and receives net tax revenues of 0.024374 (rather than 0.19753). Although the leader retains a robust market share (54 percent) in equilibrium, it is unable to convert its market dominance into appreciable net economic rents. Moreover, notwithstanding the presence of more jurisdictions providing governance, and the continued incentives jurisdictions have to differentiate from one another, they tend to cluster more tightly around the “low quality” end of the governance spectrum. While possibly counter-intuitive, the reason for this effect is straightforward – more jurisdictional players means more price competition; more price competition, in turn, means lower gross revenues; and lower gross revenues, in turn, dampen early movers’ ex ante incentives to invest in strong governance.

(iii) Non-Revenue-Maximizing Competitors and Tax “Havens”

A related extension concerns how predicted behavior would change if one relaxed the assumption that jurisdictions are motivated solely by maximizing their expected tax revenues net of regulatory installation costs. Specifically, suppose the laggard jurisdiction ( $J_2$ ) had preferences that caused it to compete on tax levies differently – and far more aggressively – than predicted in the previous section. This is an important extension, since much of the competition for US incorporations is said to come from “tax havens” whose objectives appear to have little to do with tax earnings maximization. Such behavior may emerge, for example, if regulators are captured by interests wishing to minimize tax liabilities, or alternatively crave international fame and prominence that comes with a high market share of incorporations. Or, such jurisdictions may simply have preferences that are the function of political constraints and commitments on taxes. Alternatively, the initial costs of installing anything more than “minimal” corporate governance may be prohibitive for “late mover” jurisdictions, inducing many of

them (rationally) to cluster at  $x_i = 0$ , and inducing ruinous competition that drives their tax levies towards zero.<sup>135</sup> Understanding how regulatory competition works when one's competitors are extremely aggressive, captured, or pursue other objective goals can be helpful in disentangling the current situation.

Accordingly, suppose that the laggard jurisdiction  $J_2$  has an incentive (for whatever reason) to fix  $\tau_2$  far below the predicted equilibrium level derived above, such as  $\tau_2=0$  (while still choosing location  $x_2=0$ ).<sup>136</sup> How should the leader  $J_1$  react (if at all) to such behavior? As it happens, insights into this question can be divined from the analysis already conducted. So long as  $J_1$  remains a governance leader and revenue maximizer itself, its optimal strategy is readily gleaned from the best response correspondence depicted in Figure 6. In particular, recall from the figure that for every dollar by which  $J_2$  reduces its tax levy,  $J_1$  should respond in a muted fashion, reducing its own levy by only fifty cents. Even in the extreme case, where  $J_2$  levies a tax of zero (to capture maximal market share),  $J_1$  would still continue to impose a positive tax of  $\frac{1}{2}(x_1) > 0$ . While slightly less than its previous equilibrium value of  $\frac{2}{3}(x_1 - x_2)$ , this figure still allows  $J_1$  to collect positive tax revenues and secure a 50% market share. At the same time, however, the additional competition by  $J_2$  will introduce enhanced price competition on the leader, reducing *ex ante* returns for  $J_1$  to investment in governance. In this scenario,  $J_1$ 's optimal governance regime would be to install a governance regime of  $x_1 = 0.25$ , charge a tax of  $\tau_1 = 0.125$  and garner net tax revenues of 0.03125 (as compared to 0.4444, 0.29630, and 0.19753, respectively, in the baseline case). All told, the leader would rationally respond to a single, aggressive competitor in much the same way that it would have to respond to multiple competitors; reducing taxes (but not eliminating them), dialing down its own governance protections (but not completely), and realizing less net income.

Moreover, if this extension added onto the prior extension, a non-revenue-maximizing laggard jurisdiction may have even less of an effect on the leader. Indeed, if (say) the market laggard reduced its price to zero to capture market share, that decision would be primarily visited on the laggard's immediate neighbor, who would respond (as described above) in a somewhat muted fashion. This effect would propagate sequentially towards the leader, but with somewhat dampened responses at each successive juncture. By the time the shock reached the market leader, the laggard's aggressive behavior may well have been diluted through other regulators' responses.

It is important to note that if the arguments above are no longer valid when the market *leader* (rather than a laggard) begins reducing price in a non-maximizing way. Here, because the leader already offers a higher quality governance regime, reducing price (say to zero) allows the leader to capture the entire market. Nevertheless, it remains the case that a more aggressive laggard competitor induces some downward pressure on the incumbent's revenue-maximizing tax, such behavior need not cause the incumbent to slip into a ruinous, competitive death spiral.<sup>137</sup>

<sup>135</sup> In the example above, the cost of installing governance was quadratic, so that  $c'(0)=0$ . In a more general setting, it might be that  $c'(0)>0$ , inducing late-moving jurisdictions to choose (rationally) to install minimal governance, impose no taxes, and earn no positive (or negative) net revenues. See the appendix for details.

<sup>136</sup> This assertion that  $J_2$  continues to fix  $x_2 = 0$  is reasonable for many types of alternative objectives that  $J_2$  might entertain; analyzing all such possibilities, however is beyond the scope of this discussion.

<sup>137</sup> It should be acknowledged that if the entrant jurisdiction were *truly* insensitive to costs, it could potentially install an arbitrarily strong governance regime (e.g., a value of  $x_2$  approaching infinity) and charge no taxes, dominating the market. This possibility seems far-fetched in the tax haven context, and in any event, the problem

(iv) Multinational Earnings and Territorial Taxation

A notable simplifying assumption of the baseline model analyzed above was that it represented firms' tax levies as being paid to a single jurisdiction, and it therefore did not need to distinguish the sources of the firms' profits (i.e., how much was earned in each jurisdiction). This assumption clearly requires additional scrutiny. Indeed, as demonstrated in Section III, inverting US issuers are *by hypothesis* multinational firms generating earnings from across jurisdictions – a fact that clearly is in tension with the framework analyzed above. Moreover, a central tax policy debate surrounding inversions concerns the manner in which US tax law approaches extraterritorial earnings, and the global reach of US corporate tax law (as compared to territorial reach in other jurisdictions). In the baseline model, all income was effectively territorial, and thus there was no distinction between territorial and worldwide systems. Once again, practical observation is in clear tension with the baseline model. Hence, the intuitions developed above are likely to be pertinent only if they carry over to settings where corporate income is earned (and is taxed) across multiple jurisdictions.

Luckily, as noted above,<sup>138</sup> however, both of these generalizations are easy to incorporate into the model (at the cost of some additional notation). One way to do so is as follows: Suppose that each firm's baseline earnings -- denoted early as  $\underline{\pi}$  -- could be decomposed into the sum of two different income streams,  $\underline{\pi}_1$  and  $\underline{\pi}_2$ , which the firm receives (exogenously) from operations in Jurisdictions 1 and 2, respectively. Further, let  $t_1$  and  $t_2$  denote the taxes that Jurisdictions 1 and 2 impose on that portion of profits generated from within the jurisdiction (regardless of where the firm is incorporated). Finally, redefine  $\tau_1$  and  $\tau_2$  slightly from the earlier analysis to denote an *additional* or *extraordinary* tax levy that each of Jurisdictions 1 and 2 can impose only on corporations choosing to incorporate in that jurisdiction. These additional surcharges could take any number of institutional forms, but one obvious one is that they proxy for tax levies imposed by the jurisdiction in question on the extraterritorial earnings of domestically incorporated entities. Thus, one potential factor in selecting one's place of incorporation would be to minimize the *additional* tax burden placed on firms that choose to incorporate in each jurisdiction (a consideration that maps comfortably into the current debate on US tax law and inversion incentives).

Within this modified setup of basic framework, each firm's payoff from incorporating in  $J_1$  and  $J_2$  now would become:

$$\text{Firm's payoff from incorporating in } J_1: \Pi(x_1, t_1, t_2, \tau_1 | \theta) = (\underline{\pi}_1 - t_1) + (\underline{\pi}_2 - t_2) + \theta x_1 - \tau_1$$

$$\text{Firm's payoff from incorporating in } J_2: \Pi(x_2, t_1, t_2, \tau_2 | \theta) = (\underline{\pi}_1 - t_1) + (\underline{\pi}_2 - t_2) + \theta x_2 - \tau_2$$

The terms in the parentheses are simply the after tax revenues that the firm receives from its operations in each of Jurisdictions 1 and 2. Comparing the two expressions above, it becomes clear that a representative firm of type  $\theta$  is willing to incorporate in  $J_1$  if and only if the following choice condition holds:

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of "tax havens with prohibitively good governance rules" does not appear to be a fear that anyone has expressed in the current debate over inversions.

<sup>138</sup> See note \_\_\_\_, supra.

$$\text{Choose } J_1 \text{ over } J_2 \text{ if and only if: } \theta \geq \theta^* \equiv \frac{\tau_1 - \tau_2}{x_1 - x_2}$$

Note that this is *precisely* the same expression that defined the market shares of each jurisdiction in the basic model above. And indeed, all the rest of the insights follow precisely the same too, including the nature of “bundled” regulatory competition. In other words:

*Proposition 5: When firms receive earnings streams from multinational sources, and are taxed on those earnings by the jurisdiction where they are earned, jurisdictional competition remains viable, and a corporate governance leader can extract value by bundling its governance regime with an extraordinary tax on firms choosing to incorporate with the leader. The unique equilibrium involves differentiated corporate governance rules and positive extraordinary levies (with the leader’s levy exceeding the laggard’s). Both jurisdictions enjoy strictly positive payoffs.*

Although the “extraordinary tax” referenced in the proposition above could take any number of institutional forms, one such form is to characterize it as a domestic tax on a company’s foreign earnings. And thus, a worldwide corporate tax system -- such as the one that prevails in the US -- would be perfectly consistent with this bundled form of competition (as well as the additional premium levied by the corporate governance leader).

Perhaps even more intriguingly, the above extension delivers immediate insights as to whether (and how) a jurisdiction that taxes on a worldwide basis might compete with jurisdictions that employ territorial approaches. Suppose, for example, that Jurisdiction 2 (the laggard) adopted a territorial system, and therefore imposed a uniform tax only on that income earned by a firm inside  $J_2$ , regardless of the firm’s tax residence. In other words,  $J_2$  would choose not to levy an extraordinary tax on firms’ extraterritorial earnings, and it sets  $\tau_2$  equal to zero. In terms of the baseline model, this corresponds to the case when  $J_2$  behaved in an aggressive/captured/crazy fashion, exactly like extension analyzed in subsection (c) above. However, just as before, the corporate governance leader ( $J_1$ ) can still compete profitably by imposing a positive extraordinary levy on firms choosing to incorporate there in the amount  $\tau_1 = \frac{1}{2}(x_1 - x_2) > 0$ . It therefore becomes immediately apparent that *it would be destructive of  $J_1$ ’s interests to mimic  $J_2$ ’s territorial tax regime*, which would constrain  $J_1$  to set  $\tau_1 = 0$  as well.

*Proposition 6: When the laggard jurisdiction is constrained to utilize a territorial tax regime, the optimal response of the leader is to continue to levy extraordinary taxes on domestically incorporated firms (albeit at slightly moderated levels relative to when all regimes can impose extraordinary tax levies).*

#### (v) Unbundled Regulatory Instruments

A final – and far and away the most critical – assumption in the foregoing analysis was that tax and non-tax attributes of each jurisdiction’s regulatory offerings were mandatorily “bundled” into a conjoined package. That is, when opting into their preferred regulatory environment, firms had to choose between  $J_1$ ’s regulatory package on the one hand, and  $J_2$ ’s package on the other. They did *not* have the option to “mix and match” regulatory instruments between the jurisdictions.

How would the nature of regulatory competition change if firms were able to debundle their regulatory packages? Depending on the magnitude and the location of the debundling, the effect would

be discernible, and perhaps cataclysmic. In the extreme case, complete unbundling would be tantamount to allowing firms to mix and match by choosing  $J_1$ 's desirable governance regime and  $J_2$ 's lower tax rate. From  $J_1$ 's perspective, this would be like competing against jurisdiction offering package  $\{x_1, \tau_2\}$ , and imposing a lower tax levy for identical governance dimensions. As shown above,  $J_1$  and  $J_2$  would then be compelled compete solely in tax levels, and the only equilibrium would be a competitive death spiral such that  $\tau_1 = \tau_2 = 0$ .

Moreover, anticipating that they will both be cast into a ruinous death spiral, neither jurisdiction will have an incentive to invest in building up (or maintaining) a strong corporate governance regime. Consequently, in the first stage of the game, both the leader and the laggard will install the minimum level of corporate governance, so that  $x_1 = x_2 = 0$ . This logic can be summarized as follows:

*Proposition 7: If a technology existed allowing firms to “unbundle” tax from governance attributes, then all firms will opt to be taxed in the lowest-tax jurisdictions and governed through the corporate governance leader. The unique equilibrium in this setting involves all jurisdictions installing the lowest possible level of corporate governance, levying no taxes, and generating no tax revenue.*

What might the technology of unbundling look like? Although examples abound, two in particular stand out. The first is a territorial tax system, which effectively makes tax levies on a firm independent of where it incorporates. As shown above, a corporate governance leader would never have an incentive to adopt such a system, even if all other competitors had done so.

A second technology for unbundling is perhaps more surprising:  $J_1$  might simply allow it, by (unwittingly or not) supplying its corporate governance regime (mostly free of charge) to foreign-incorporated firm wishing to use it. Although this sounds counter the leader's interests, over the last decade and a half, US securities law has been doing exactly that (at least in part). The next section describes the nature of this big giveaway.

## V. Synthesis and Some Tentative Reform Proposals

The results from Section IV reveal several intuitions that are relevant to understanding some policy tradeoffs inherent in the recent inversion wave. Most centrally, the analysis suggests that, so long as US corporate law offers a more attractive regime for corporate governance than do salient jurisdictional competitors, then US tax authorities perhaps need not engage in hasty, tit-for-tat responses to the tax policies of foreign authorities. In particular, the most radical reforms currently on the table – such as the complete elimination of corporate taxes or the migration to a territorial system of taxes – are dubious responses (at best) to the existing trend, and may even prove counterproductive (both to US and to general social welfare). Assuming the US is still able to offer a different (and better) governance product than its competitors, then it can likely afford to offer a distinct tax product as well. Domestic policymakers may therefore have the flexibility to approach responsive tax reform in a more incremental fashion, embracing changes similar to approaches that were recently undertaken in the 2014 anti-inversion reforms without re-imagining the entire corporate tax philosophy of the US.

This of course does not imply that utter passivity is the optimal US response to recent out-migrations either. Clearly, something has caused a wave of pent-up outbound M&A activity to take hold.

To be sure, the large (and growing) differences in nominal tax rates imposed on US resident corporations are part of this problem, and the US may well wish to consider reducing nominal rates by some margin to narrow (though not eliminate) the gap. However, the analysis offered above suggests that an analogously significant concern is the extent to which the US has unwittingly undermined its ability to raise corporate tax revenues by unbundling corporate governance from tax residence. As argued in Section III, over the last 15 years, US securities law has gradually supplanted state corporate governance laws as the *lingua franca* (and *lex franca*) of US-traded companies, independent of incorporation jurisdiction. By unbundling governance from tax, the federal government has arguably compromised its ability to extract tax revenues in exchange for offering value-enhancing governance. To the extent that this unbundling trend continues, moreover, the inversion wave could actually grow worse.

My analysis therefore suggests at least two alternative measures as promising responses to this trend: Either (1) the US should devise a new mechanism for “pricing out” the governance services that it increasingly gives away to public companies; or (2) the federal government should reverse course in its longstanding program to suffuse securities law with heightened corporate governance requirements. I address each (very briefly and tentatively) below.

*(a) Pricing Federal Governance*

One potential response for re-bundling tax and governance would be for the US government to charge foreign corporations for their access to US securities laws, markets, courts, regulators and jurisprudence. Perhaps the most effective way to do this would be to assess an extra-ordinary surcharge to issuers who wish to list (or cross-list) on US exchanges, subject to a credit for those issuers who, by virtue of US incorporation, are subject to US tax treatment at the parent level.

At present, the fees charged to foreign issuers by US exchanges are not subject to any extraordinary US tax, and they are trivial by comparison to the US tax code. For example, the NASDAQ exchange imposes an annual fee ranging from \$32,000 to \$99,500, depending on the market and number of shares,<sup>139</sup> while the NYSE charges a per-share fee ranging from a total of \$25,000 to a top-end of \$500,000.<sup>140</sup> Other exchanges, such as BATS, offer no fees at all for securities that are traded in sufficient volumes.<sup>141</sup> While certainly not pocket change, none of these fees comes remotely close to the type of tax liability of most US multinationals. Imposing an extraordinary levy on foreign issuers could reduce the difference tax burden between domestic and foreign incorporations, effectively re-bundling the benefits of US listings with tax revenues.

One potentially significant drawback to a special tax levy on foreign issuers comes from preexisting constraints the US faces under international law. Although levying a listing surcharge on listed foreign corporations may not carry the same Constitutional implications as when US states discriminate against out-of-state corporations, it could face significant challenges elsewhere. In particular, international tax treaties typically prohibit (or heavily constrain) tax discrimination against

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<sup>139</sup> NASDAQ Initial Listing Guide, September 2014, at p. 13.

<sup>140</sup> NYSE Listing Rule 902.03; Fees for Listed Equity Securities (2014).

<sup>141</sup> See <http://www.batstrading.com/listings/>

foreign incorporated entities.<sup>142</sup> To the extent that such taxes abrogate these treaty provisions, they might be unenforceable. This particular problem might be addressed, however, by double-barrel reforms: simultaneously implementing a reduction in corporate tax for listed US incorporated issuers, combined with a uniform listing surcharge for all listed companies, foreign and domestic. Nevertheless, such fixes involve time, effort, creativity and may themselves run various types of risks to enforcement.

A second (and perhaps more imposing) challenge, however, might remain. As noted above, my central thesis in this article turns on federal securities law displacing state corporate law, but not on whether the displacing elements of federal law securities law are desirable or not. Either way, both foreign and domestic listing entities are subject to the same governance restrictions, and consequently the cost of leaving US corporate law jurisprudence goes down. However, if one is convinced that the governance reforms in Sarbanes Oxley and Dodd-Frank were an affirmatively bad idea (and the jury is still out on this one – and haggling with one another<sup>143</sup>), then imposing a listing surcharge comes with an attendant risk: flight from US securities markets as well as state corporate law. Indeed, of the governance changes during the last fifteen years have been both preemptive and value eroding, they have eroded the value of US-style governance *writ large*. Accordingly, an overly aggressive attempt to extract rents from US listing companies might bring about just the opposite – flight to foreign exchanges. Thus, while a listings surcharge may be one way to approach the unbundling dilemma, it is a high-risk proposition.

*(b) Rolling back Federal Corporate Governance*

A second possible policy option to re-bundle tax and governance would entail “rolling back” (either retrenching or repealing) many of the governance reforms introduced by Sarbanes Oxley, Dodd Frank, and their progeny, which – as argued above – have squeezed out state law in several domains where states were traditionally dominant. Most of the federal governance mandates delineated in Section III, for example could be candidates for the chopping block under this approach.<sup>144</sup>

Although rollbacks are, in some ways, less legally fraught than new tax levies, they carry significant risks and obstacles of their own. A significant impediment of rolling back federal corporate law stems from coordinating state and federal legal actors. When the federal government is the chief authority for both taxation and provision of governance, it is easier to develop a coherent strategy for bundling the two policy instruments. In contrast, when states (such as Delaware) are the primary arbiters of corporate law, while the federal government retains primary tax authority, it becomes unclear whether the relevant actors have appropriate incentives to coordinate with one another in such that their regulatory strategies internalize relevant domestic costs and benefits. Granted, states likely internalize some revenue

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<sup>142</sup> See, e.g., Article 24 of US Model Income Tax Convention (November 15, 2006) (“Nationals of a Contracting State shall not be subjected in the other Contracting State to any taxation or any requirement connected therewith that is more burdensome than the taxation and connected requirements to which nationals of that other State in the same circumstances, in particular with respect to residence, are or may be subjected”). Senate Committee on Foreign Relations, EXPLANATION OF PROPOSED INCOME TAX TREATY BETWEEN THE UNITED STATES AND POLAND, June 19, 2014m (adopting the US Model treaty, which contains nondiscrimination provisions on tax treatment of foreign entities relative to domestic entities).

<sup>143</sup> See TAN \_\_-\_\_, supra, and accompanying cites.

<sup>144</sup> See notes \_\_-\_\_, supra, and accompanying text.

benefits from offering strong governance regimes (such as nurturing a strong regional legal services market); but many states raise somewhat little capital from corporate taxes on domestic corporations, particularly when such businesses do their business elsewhere.<sup>145</sup> All else constant, the coordination problems that would ensue from ceding governance back to the states represent a distinct drawback to using federal roll-backs to re-bundle tax with company law.

Yet another impediment to using federal rollbacks to re-bundle tax and corporate law – and an artifact of federal-state coordination problems noted above – potentially comes from firms themselves. Increasingly, incorporated entities are going to extraordinary lengths to “contractualize” their corporate governance regime, which can have the effect of instituting a form of private unbundling. For example, the Medtronic-Covidien inversion included a term in the surviving entity’s Irish articles of association that largely replicates a US-style business combination statute.<sup>146</sup> In addition, US companies have increasingly inserted choice of forum clauses in their governing bylaws, usually to steer internal affairs litigation back to their own state of incorporation.<sup>147</sup> However, it is plausible that inverting companies may employ similar tactics to effect the opposite result, steering corporate litigation *away* from their unfamiliar new foreign home, and *back into* US (and Delaware) courts. It is unclear how receptive the Delaware Chancery Court would be to adjudicating, say, corporate litigation involving the internal affairs of an Irish or British corporation. However, it seems plausible that at least some Delaware judges – who do not personally benefit from federal tax revenues and who enjoy being at the helm of high-profile business litigation – might be willing to entertain such cases. It bears noting, for example, that the Delaware Chancery Court recently recognized the validity an unconventional forum-selection bylaw for a Delaware corporation that had opted *out* of Delaware and into North Carolina as the sole venue for litigating internal affairs disputes.<sup>148</sup> Chancellor Bouchard appealed to principles of comity to justify the uniform interpretation of forum-selection bylaws, no matter what their directionality.<sup>149</sup>

To the extent such self-help strategies become routine and accepted, a roll-back of federal corporate governance mandates would face long odds in reclaiming US market power in the regulatory competition market. It seems plausible, then, that a federal governance roll-back would have to be

<sup>145</sup> Under Del. Code Section 1902(b), domestic and foreign corporations are required pay a tax of 8.7% of federal taxable income allocated and apportioned to Delaware. The apportionment formula is based on an equally weighted three-factor method of property, wages and sales in Delaware as a ratio of property, wages and sales everywhere.

<sup>146</sup> See Medtronic Holdings S-4 Registration Statement, Annex D (July 14, 2014) (available at [http://www.sec.gov/Archives/edgar/data/1613103/000119312514267867/d741931ds4.htm#rom741931\\_133](http://www.sec.gov/Archives/edgar/data/1613103/000119312514267867/d741931ds4.htm#rom741931_133)). The provision was fashioned after the business combination statute in Minnesota, Medtronic’s place of incorporation. See Minn. Stat. § 302A.673.

<sup>147</sup> See, e.g., *Boilermakers Local 154 Retirement Fund v. Chevron Corporation*, 73 A.3d 934 (Del. Ch. 2013).

<sup>148</sup> *City of Providence v. First Citizens BancShares, Inc.*, C.A. No. 9795-CB (Del. Ch. Sept. 4, 2014) (Bouchard, C.) (available for download at <http://courts.state.de.us/opinions/download.aspx?ID=211430>).

<sup>149</sup> As Chancellor Bouchard concludes (See *Id.*, at 24):

Further supporting my conclusion are important interests of judicial comity. If Delaware corporations are to expect, after *Chevron*, that foreign courts will enforce valid bylaws that designate Delaware as the exclusive forum for intra-corporate disputes, then, as a matter of comity, so too should this Court enforce a Delaware corporation’s bylaw that does not designate Delaware as the exclusive forum. In my opinion, to conclude otherwise would stray too far from the harmony that fundamental principles of judicial comity seek to maintain.

coupled with a stronger mandate (from Congress, the Supreme Court, or some other actor) on the sanctity of the internal affairs doctrine in the face of such “inverted” choice of law/forum provisions.

Finally, a strategy of rolling-back of federal corporate governance mandates poses challenges in prioritizing *which particular mandates* should be subject to repeal. It seems plausible that at least some recent federal mandates have enhanced average company value, while others have been value-eroding. (The relative mixture of good and bad mandates is, as noted above, still subject to considerable debate.) One might have an intuitive inclination to target those federal mandates that are generally agreed to have been least successful in enhancing issuer value. However, the calculus of unbundling calls even this intuitive logic into question. Recall that both good and bad governance mandates can effectively displace state law, and in that sense both types incrementally unbundle tax from governance. Somewhat counter-intuitively, in fact, one could argue that it is paramount to pull the plug on the *most valuable* federal governance mandates, since those rules represent the most significant areas where federal law provides the maximal benefit to foreign issuers without attempting to extract tax revenues.

## VI. Conclusion

Tax inversions have been at the center of a significant legal policy debate for at least the last two years, and one that has sporadically flared up for decades. Such transactions have proven extraordinarily difficult for policy makers to address, because they represent a complex intersection of tax law, capital mobility, public finance, corporate law & governance, securities law, and perfervid political jockeying about the appropriate role (if any) of corporate taxes. This paper has approached the subject using the lens of regulatory competition theory, arguing our current bout of *inversionitis* is an artifact – at least in part – of a fundamental (and largely self-inflicted) shift in the competitive landscape, where the US has traditionally enjoyed market power by “bundling” its tax residency rules with a strong system of state corporate law and governance, utilizing the latter to extract rents through the former. Since the turn of the 21<sup>st</sup> century, however, US market power in the regulatory competition sphere has dwindled – perhaps unwittingly – as securities law has progressively unbundled these two policy levers through a steady colonization of corporate governance. An effective palliative for our current malaise, then, may lay in securities market reforms that address the unbundling phenomenon squarely (rather than a radical reimagining of US Corporate Tax policy). The precise shape of prescriptive reform, however, turns crucially on one’s assessment (among other things) of whether our fifteen-year-long experiment in federal corporate governance has been innovatively creative, or irresponsibly destructive. And concededly, this latter question is still open to some speculation and debate; but the dilemmas it poses may be far more tractable (and politically manageable) than those presented by radical tax reform proposals.

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## VII. Technical Appendix

This appendix extends and analyzes in greater detail the regulatory competition framework underlying the illustrative example discussed in the text.

### (a) Model and Framework

Consider a continuum of for-profit business organizations (firms) that make strategic decisions about their regulatory jurisdiction. The total size of the population of firms is normalized to be 1. Each firm chooses among a series of bundled regulatory offerings of various jurisdictions, and in particular a firm's choice commits it to the jurisdiction's corporate governance as well as its tax policies (i.e., tax and corporate governance are bundled). Each firm in the population generates baseline *gross* payoff of  $\underline{\pi} > 0$ , which is assumed constant across all firms in the population. Each firm's payoff, however, is subject to both upward and downward revision from this baseline as a by-product of the regulatory and tax environment it selects. I assume that firms in the population choose their regulatory environment in order to maximize their payoffs net of such revisions.

Firms select their regulatory home from among  $N \geq 2$  jurisdictions, indexed as  $J_i$ , where  $i \in \{1, 2, \dots, N\}$ . The jurisdictions are assumed to compete with one another for incorporations and the resulting tax revenues. Specifically, I suppose that jurisdictions are interested in maximizing their expected tax revenues less the administrative cost of installing and maintaining their regulatory structure.

Inter-jurisdictional competition plays out through a bundle of regulatory attributes offered by each jurisdiction to firms that are incorporated there. Each jurisdiction offers a package of regulatory instruments denoted  $\{\vec{x}_i, \tau_i\}$ . The term  $\tau_i$  denotes a tax levy imposed on firms incorporating in  $J_i$ . Intuitively, higher values of  $\tau_i$  correspond to larger per-firm tax levies in  $J_i$ . Tax levies are normalized to be non-negative. The vector  $\vec{x}_i$  embodies the non-tax elements of corporate regulation, to which I refer collectively as the "corporate governance" attributes of each jurisdiction. In the most general setting,  $\vec{x}_i$  would have  $h \geq 1$  elements, and thus  $\vec{x}_i$  can be decomposed into its components  $\{\vec{x}_{i1}, \vec{x}_{i2}, \dots, \vec{x}_{ih}\}$ . These variables embody canonical corporate law / regulation commitments thought to affect firm value (such as minority shareholder protections, fiduciary duties, judicial quality, board structure, shareholder governance rights, network externalities, and the like). For the purposes of this analysis, however, I will concentrate on the case of  $h=1$  (so that corporate governance is reflected along a scalar index), but it is relatively straightforward to extend the model to higher order dimensions, with little change to the core analytic results derived below.

The *net* profits of each firm stem from two deviations away from their gross values. Specifically, for a firm choosing jurisdiction  $i$ , net profits are given by:

$$\underline{\pi} + \theta \cdot x_i - \tau_i \tag{1}$$

where  $\theta$  denotes the marginal value that the firm places on the quality of the governance regime. I assume that firms are heterogeneous, and that  $\theta \in [\underline{\theta}, \bar{\theta}]$  is distributed according to probability density function  $f(\theta) > 0$ , and associated cumulative distribution function  $F(\theta)$ . Moreover, assume that  $f(\cdot)$  and  $F(\cdot)$  satisfy conventional monotone hazard rate properties (so that  $F(\theta)/f(\theta)$  is non-decreasing in  $\theta$ , and  $[1-F(\theta)]/f(\theta)$  is non-increasing in  $\theta$ ).

Although incorporating firms value strong governance (high values of  $x_i$ ), installing/maintaining high quality governance is expensive at the jurisdictional level. Specifically, I assume that in order to install governance level  $x_i$ ,  $J_i$  must expend  $c(x_i)$  in costs, where  $c(0)=0$ ,  $c'(x_i) \geq 0$ , and  $c''(x_i) > 0$ . I also assume that  $\lim_{x_i \rightarrow 0^+} c'(x_i) = 0$ , so that sufficiently small investments in corporate governance visit – in the limit – arbitrarily small costs on the jurisdiction.<sup>150</sup>

<sup>150</sup> I explore the implications of relaxing this last assumption below.

The order of the game proceeds in stages:

- In Stage 1, jurisdictions sequentially choose their governance regimes  $\{x_1, x_2, \dots, x_N\}$ . I assume that the sequence follows the jurisdictions' index numbers, so that  $J_1$  is the first mover, followed by  $J_2$ , and so forth.
- In Stage 2, once jurisdictions have committed to a governance regime, all jurisdictions simultaneously choose tax levies  $\{\tau_1, \tau_2, \dots, \tau_N\}$ , which are assumed bundled with governance.
- In Stage 3, firms select their jurisdiction so as to maximize expected net profits, paying corresponding jurisdictional taxes.

I analyze Bayesian perfect equilibria of the above extensive form, characterizing optimal strategies and associated payoffs moving backwards through the stages of the game.

*(b) Firms' Jurisdictional Choice*

Consider first the final stage, where firms choose their incorporation jurisdiction, assuming all jurisdictions have committed both to a governance regime and a tax levy. If firms are value maximizing, then each strictly prefers to incorporate in  $J_k$  if that jurisdiction offers the company a net value exceeding that available in all other jurisdictions:

$$\underline{\pi} + \theta \cdot x_k - \tau_k > \underline{\pi} + \theta \cdot x_i - \tau_i \quad \forall i \neq k. \quad (2)$$

(I assume that if the maximal attainable net value for a firm is offered by two or more jurisdictions, the firm randomizes in choosing between them). Consequently, a firm of type  $\theta$  will strictly favor jurisdiction  $k$  over all other jurisdictions  $i \neq k$  whenever:

$$\theta \cdot (x_k - x_i) > \tau_k - \tau_i \quad \forall i \neq k \quad (3)$$

Note that this condition immediately suggests were two jurisdictions  $J_i$  and  $J_k$  to offer identical corporate governance regimes ( $x_i = x_k$ ), then those jurisdictions will compete for firms on the basis of tax rates alone ( $\tau_i$  and  $\tau_k$ ), with firms strictly favoring the lower-tax jurisdiction. (As noted in the text, a similar argument holds for any jurisdictions that unbundle their governance regimes from its tax regimes.)

Alternatively, when jurisdictions offer differentiated regimes (and thus  $x_i \neq x_k$  for all  $i, k$ ), a firm of type  $\theta$  will favor jurisdiction  $k$  whenever:

$$\theta > \hat{\theta}_{i,k} \equiv \left( \frac{\tau_k - \tau_i}{x_k - x_i} \right) \quad \forall i \neq k \quad (4)$$

The variable  $\hat{\theta}_{i,k}$  represents the type of firm (in  $\theta$  space) that would be indifferent between the bundled offerings of  $J_i$  and  $J_k$ .

*(c) Tax Levy Stage*

Moving back to Stage 2, suppose all jurisdictions have installed governance regimes (in Stage 1), and they must set tax levies simultaneously in the light of these installed regimes and firms' jurisdictional preferences (described above). It facilitates exposition to develop an alternative indexing scheme, where jurisdictions are ranked according to their chosen governance regimes, from "highest" to "lowest."

Specifically, let  $x_{(1)}$  denote the highest-quality regime chosen by any jurisdiction,  $x_{(2)}$  the second-highest regime, and so forth.<sup>151</sup> Note that these alternative indexes  $\{x_{(1)}, x_{(2)}, \dots, x_{(N)}\}$  need not coincide with the sequential indexing of the firms above (i.e.,  $\{x_1, x_2, \dots, x_N\}$ ), since it is not clear (at least yet) how the quality of installed governance relates to the sequential order of play in Stage 1 -- a topic taken up below.

The first important insight comes from understanding how tax competition between jurisdictions relates to the similarity of their governance regimes. In particular, suppose that two (or more) jurisdictions had chosen identical governance regimes with one another (so that, say,  $x_{(m+1)} = x_{(m+2)} = \dots = x_{(m+i)}$ ). As noted above, in selecting between these jurisdictions, firms will concentrate solely on minimizing tax liabilities, since there is no difference in governance. Accordingly, the jurisdictions will face pure price competition in taxes, and the only equilibrium entails both jurisdictions charging zero taxes. This intuition is stated formally in Lemma 1.

**Lemma 1:** *If any subsequence of ordered jurisdictions  $\{m+1, \dots, m+i\}$  install identical governance structures (and thus  $x_{(m+1)} = x_{(m+2)} = \dots = x_{(m+i)}$ ), then in equilibrium all such jurisdictions levy taxes of  $\tau_{(m+1)} = \tau_{(m+2)} = \dots = \tau_{(m+i)} = 0$ , and realize zero gross payoff.*

Lemma 1 is analogous to the familiar result in Bertrand competition models, where total market size is bounded (as is present here). As is well known in the literature,<sup>152</sup> the only equilibrium in such situations involves marginal cost pricing – and in this framework all costs are quasi-fixed, and thus marginal costs are zero. Alternatively, if jurisdictions offer differentiated governance regimes, then firms may sort depending on their marginal values of governance. In particular, firms that value governance relatively little (and thus  $\theta$  is close to zero) will tend to choose the lowest tax regimes, while firms that value governance more (and  $\theta$  is relatively high) are willing to pay more for governance through taxes, and thus may choose to be governed by a higher tax regime.

A concomitant of the reasoning above is that if any jurisdiction with governance regime  $x_{(m)}$  assesses a levy of  $\tau_{(m)} = 0$ , then this strategy will have significant “trickle-down” effects on any jurisdictions that have installed a less attractive governance policy.

**Lemma 2:** *If any jurisdiction with profile  $x_{(m)}$  charges levy of  $\tau_{(m)} = 0$ , then in equilibrium all jurisdictions with strictly weaker governance regimes (i.e.,  $\{i \mid x_{(i)} < x_{(m)}\}$ ) realize zero gross payoff and zero market share.*

Lemma 2 establishes the vulnerability of laggard jurisdictions to strong price competition from jurisdictions with stronger governance regimes. Indeed, because of the ordering of the  $x_{(i)}$ s, we know that  $x_{(i)} < x_{(m)}$  for all  $i > m$ . All such jurisdictions are not able to offer a stronger governance regime than  $x_{(m)}$ , and even if they reduced their tax levy to zero, consumers would prefer to incorporate under regime  $x_{(m)}$  and pay  $\tau_{(m)} = 0$ .

Combining Lemmas 1 and 2 immediately yields the following:

<sup>151</sup>This notation may appear unintuitive at first, since it implies the ordering  $x_{(1)} \geq x_{(2)} \geq \dots \geq x_{(N)}$  which is the reverse indexing from conventional “order statistics” within sampling theory. As shall become apparent below, however, this convention makes for a more natural alignment of the two indexing schemes in equilibrium.

<sup>152</sup>Kaplan, Todd R. & David Wettstein, 2000. “The possibility of mixed-strategy equilibria with constant-returns-to-scale technology under Bertrand competition.” *Spanish Economic Review* 2:1 pp 65-71; Baye, Michael R. & John Morgan, 1999. “A folk theorem for one-shot Bertrand games.” *Economics Letters* 65:1 pp. 59-65.

**Lemma 3:** *If any subsequence of ordered jurisdictions  $\{m+1, \dots, m+i\}$  install identical governance structures (and thus  $x_{(m+1)} = x_{(m+2)} = \dots = x_{(m+i)}$ ), then in equilibrium all jurisdictions with strictly weaker governance regimes (i.e.,  $\{i \mid x_{(i)} < x_{(m)}\}$ ) realize zero profits and zero market share.*

The above lemmas convey different ways in which the tax levy game can devolve into 'ruinous' competition (via Bertrand pricing). However, ruinous competition need not follow when jurisdictions are differentiated, and can therefore exercise some market power. To see this, consider how a regulatory differentiation would play out in the taxation game.

For the sake of precision, I introduce two definitions. First, let  $\bar{x}_{(m+1)}$  denote the largest non-unique value in the sequence  $\{x_{(1)}, x_{(2)}, \dots, x_{(N)}\}$  (and thus by implication  $\bar{x}_{(m+1)} = \bar{x}_{(m+2)}$ ). Lemmas 1-3 imply that  $\tau_{(m+1)}=0$ , and moreover that all firms with governance structures weaker than  $\bar{x}_{(m+1)}$  must enjoy zero profits and zero market share. By construction, then, all jurisdictions offering governance regimes  $\{x_{(1)}, x_{(2)}, \dots, x_{(m)}\}$  offer governance regimes that are fully differentiated from one another. If all jurisdictions have positive market share (an assumption that will be borne out in equilibrium), firms will tend to favor regime  $x_{(i)}$  over those of its immediate ordinal neighbors ( $x_{(i+1)}$  and  $x_{(i-1)}$ ) whenever the following condition holds:

$$\begin{aligned} \theta &\in \left( \frac{\tau_{(i)} - \tau_{(i+1)}}{x_{(i)} - x_{(i+1)}}, \frac{\tau_{(i-1)} - \tau_{(i)}}{x_{(i-1)} - x_{(i)}} \right) \\ &\equiv \left( \hat{\theta}_{i+1,i}, \hat{\theta}_{i,i-1} \right) \end{aligned} \quad (5)$$

With these definitions in hand, the equilibrium of the taxation stage game can be characterized as follows:

**Proposition 1a:** *Suppose  $\bar{x}_{(m+1)} = \emptyset$  and thus all  $N$  governance regimes are distinct. The unique equilibrium of the tax levy stage game involves all jurisdictions capturing positive market share, all making positive profits, and all imposing taxes of  $\tau_{(1)} > \tau_{(2)} > \dots > \tau_{(N)}$  characterized by the system:*

$$\begin{aligned} i=N: \tau_{(N)} &\left( \frac{f(\hat{\theta}_{N,N-1})}{(x_{(N-1)} - x_{(N)})} \right) = F(\hat{\theta}_{N,N-1}) \\ i \in \{2, \dots, m\}: \tau_{(i)} &\left( \frac{f(\hat{\theta}_{i,i-1})}{(x_{(i-1)} - x_{(i)})} + \frac{f(\hat{\theta}_{i+1,i})}{(x_{(i)} - x_{(i+1)})} \right) = (F(\hat{\theta}_{i,i-1}) - F(\hat{\theta}_{i+1,i})) \\ i=1: \tau_{(1)} &\left( \frac{f(\hat{\theta}_{2,1})}{(x_{(1)} - x_{(2)})} \right) = (1 - F(\hat{\theta}_{2,1})) \end{aligned}$$

**Proposition 1b:** *Suppose  $\bar{x}_{(m+1)} > x_{(N)}$ . The unique equilibrium of the tax levy stage is as follows:*

- *All jurisdictions with governance regimes  $x_{(i)} = \bar{x}_{(m+1)}$  levy tax of  $\tau_{(i)} = 0$ , capturing zero profits*
- *All jurisdictions with governance regimes  $x_{(i)} < \bar{x}_{(m+1)}$  capture zero profits and zero market share*
- *All jurisdictions with governance regimes  $x_{(i)} > \bar{x}_{(m+1)}$  earn positive profit share, imposing positive taxes  $\tau_{(1)} > \tau_{(2)} > \dots > \tau_{(m)}$ , where:*

$$i \in \{2, \dots, m\}: \tau_{(i)} \left( \frac{f(\hat{\theta}_{i,i-1})}{(x_{(i-1)} - x_{(i)})} + \frac{f(\hat{\theta}_{i+1,i})}{(x_{(i)} - x_{(i+1)})} \right) = (F(\hat{\theta}_{i,i-1}) - F(\hat{\theta}_{i+1,i}))$$

$$i=1: \tau_{(1)} \left( \frac{f(\hat{\theta}_{2,1})}{(x_{(1)} - x_{(2)})} \right) = (1 - F(\hat{\theta}_{2,1}))$$

*Proof:* Consider first Proposition 1a, and thus assume that all values of  $x_{(i)}$  are distinct. First, realize that  $\tau_{(1)} > 0$  in any equilibrium. To see this, suppose not, and there exists an equilibrium where the leader charges  $\tau_{(1)} = 0$ . By Lemmas 1 and 2 above, in equilibrium all other jurisdictions must either also charge  $\tau_{(i)} = 0$ , or have no market share (or both). Here, however, if  $x_{(1)}$  is distinct from others, there exists a profitable unilateral deviation for the leader away from zero pricing. To see this, note that the leader's marginal profit (as a function of  $\tau_{(1)}$ ) is given by:

$$(1 - F(\hat{\theta}_{2,1})) - \tau_{(1)} \left( \frac{f(\hat{\theta}_{2,1})}{(x_{(1)} - x_{(2)})} \right) \quad (6)$$

Note that the leader must have positive market share in this posited equilibrium (indeed 100%), and thus when  $\tau_{(1)} = 0$ , the leader's marginal profit must be strictly positive; consequently, the leader will have an incentive to deviate by increasing its assessed levy. This exposes a contradiction, and thus in any equilibrium  $\tau_{(1)} > 0$ . The remainder of the proof of Proposition 1a is by induction. Suppose there were an equilibrium in which  $\tau_{(i)} > 0$  for all  $i \in \{1, \dots, k-1\}$ , but that the jurisdiction with governance regime  $x_{(k)}$  levies a tax of  $\tau_{(k)} > 0$ . Assuming that such a jurisdiction has a differentiated governance structure, its marginal profit is given by:

$$(F(\hat{\theta}_{k+1,k}) - F(\hat{\theta}_{k,k-1})) - \tau_{(k)} \left( \frac{f(\hat{\theta}_{k,k-1})}{(x_{(k-1)} - x_{(k)})} + \frac{f(\hat{\theta}_{k+1,k})}{(x_{(k)} - x_{(k+1)})} \right) \quad (7)$$

Because  $x_{(k)}$  is unique by hypothesis, it follows that  $x_{(k-1)} > x_{(k)} > x_{(k+1)}$ . Consequently, it also follows that  $\hat{\theta}_{j+1,j} = 0$  for all  $j \geq k$ , since  $x_{(k)}$  provides a better governance structure at zero price (see Lemma 3).

Moreover, because  $\tau_{(k-1)} > 0$ , it also follows that  $\hat{\theta}_{k,k-1} = \frac{\tau_{(k-1)}}{x_{(k-1)} - x_{(k)}} > 0$ . The above marginal profit condition is therefore strictly positive at  $\tau_{(k)} = 0$ , and thus the jurisdiction offering  $x_{(k)}$  will have an incentive to deviate by increasing its assessed levy up to some level strictly  $\tau_{(k)} \in (0, \tau_{(k-1)})$ . By induction, then, it becomes clear that if all firms are fully differentiated in governance, all will charge positive levies of  $\tau_{(1)} > \dots > \tau_{(N)}$ , claim positive market share, and make positive gross profits. The conditions in the Proposition are simply the first order conditions for an optimum assuming all firms have positive market share (as shown above).

The proof of Proposition 1b is identical to Proposition 1a, up to the consideration of the jurisdiction offering  $\bar{x}_{(m+1)}$ . This jurisdiction (by definition) offers a non-unique governance structure that is identical to at least one other offering. By Proposition 1, we know all such jurisdictions in the group must charge levies of  $\tau_{(i)} = 0$ , dividing what is left of the market but making no profits. All others in the market with inferior governance regimes fail to capture market share (regardless of the levy they charge). ■

*(d) Governance Regime Choice Stage*

Finally, consider how jurisdictions will select their regime choice at the ex-ante stage. Recall here, under the alternative indexing regime,  $J_1$  moves first, installing corporate governance regime  $x_1$ , followed by  $J_2$  with  $x_2$ , and so forth. Recall also that installing regime  $x_i$  requires an expenditure (of effort and/or monetary resources) of  $c(x_i)$ , where  $c(0)=0$ ,  $c'(x_i) \geq 0$ , and  $c''(x_i) > 0$ , and  $\lim_{x_i \rightarrow 0^+} c'(x_i) = 0$ . This observation, in turn, generates the following result:

**Proposition 2:** *In any equilibrium of the regime choice game, all jurisdictions install unique governance regimes in which  $x_i \geq 0$ , with one jurisdiction would installing a regime of  $x_i = 0$ . Equilibrium levies increase in the quality of the governance regime offered by the jurisdiction.*

**Proof:** First note that no jurisdiction  $J_i$  would install a strictly positive regime choice  $x_i$  coinciding with the regime choice of some earlier mover,  $J_i$ . Indeed, by setting  $x_i = x_k$ , jurisdiction  $i$  incurs strictly positive costs of  $c(x_k)$  and generates in equilibrium (See Lemma 1) zero gross profits. Consequently,  $J_i$ 's expected net payoff would be  $-c(x_k)$ , which cannot be an equilibrium since a payoff of no less than zero was obtainable by setting  $x_i = 0$ . To show the second part of the lemma, suppose in equilibrium some set of  $M$  jurisdictions selected identical regimes of  $x_i = 0$  for all  $i \in M$ . Applying Lemma 1, it follows that all such jurisdictions must generate zero net profits. Let  $x_{min}$  constitute the lowest governance regime selected by any jurisdiction outside of  $M$ . Some member of  $M$  would find a profitable deviation by selecting  $x_i = \varepsilon$ , where  $0 < \varepsilon < x_{min}$ . By Proposition 1b, such a jurisdiction would earn strictly positive gross profits, and because  $\lim_{x_i \rightarrow 0^+} c'(x_i) = 0$ , there exists a value of  $\varepsilon$  sufficiently small that installing such a regime would generate strictly positive net profits.<sup>153</sup> This logic remains valid for any  $M > 1$ , and thus at most one jurisdiction will install a regime of  $x_i = 0$ . Because all jurisdictions earn strictly positive profits, they must capture market share as well, and this is possible only if equilibrium tax levies ( $\tau_i$ ) are increasing in the quality of governance ( $x_i$ ). ■

Proposition 2 demonstrates that any equilibrium of the regime choice stage will involve differentiated locations. Moreover, we know that such an equilibrium exists, since both the maximum tax levy and the maximum governance level are effectively bounded by the structure of the jurisdictions' payoffs.<sup>154</sup> However, as with other endogenous entry games with quality differentiation in industrial organization,<sup>155</sup> there may be many equilibria of the regime choice game. In the special case of the uniform distribution, there generally is a unique equilibrium, which can be computed using numerical methods. Moreover, in that context, it turns out that sequential order corresponds with governance order, so that  $x_i = x_{(i)}$  for all  $i \in \{1, 2, \dots, N\}$ .

<sup>153</sup> If the limiting conditions on  $c'(x_i)$  are not satisfied, then there may not be a profitable deviation for a laggard jurisdiction offering  $x_i = 0$  to separate from other laggards also offering  $x_i = 0$ . In this case, the equilibria would be similar to Proposition 2, but there would be a cluster of "tax haven" jurisdictions each offering regime  $x_i = 0$  and charging zero equilibrium levies. So long as  $c'(x_i)$  is sufficiently small, however, the first moving jurisdiction will find it profitable to separate from the havens, installing  $x_i > 0$  and earning positive net revenues in equilibrium.

<sup>154</sup> As to tax levies, it is clear that the most any firm would be willing to pay to incorporate in  $J_i$  would be  $\bar{\pi} + \bar{\theta}$ , and this is the maximal bound on any tax levy that any jurisdiction could charge. As to locations, although the choice of  $x_i$  is unbounded the convexity of  $c(x_i)$  similarly applies that there a critical value of  $x_i$  beyond which not even a monopolistic jurisdiction would venture.

<sup>155</sup> Lane, W. J., 1980, Product Differentiation in a Market with Endogenous Sequential Entry." Bell J. of Econ., 11:1 pp. 237-260.

(e) *Numerical Example for Three Jurisdictions*

This sub-section utilizes the analysis above to compute the equilibrium of the 3-jurisdiction model where  $\theta \sim U[0, 1]$ . As noted above, in equilibrium no two jurisdictions offer duplicative governance. The discussion below distinguishes between the "laggard" jurisdiction ( $J_3$ ), the "middling" jurisdiction ( $J_2$ ), and the "leader" jurisdiction ( $J_1$ ). I assume (arbitrarily at this stage) that  $x_1 > x_2 > x_3$  -- an assumption that must be verified in equilibrium. Because the firm choice stage remains identical to the general case, we begin with stage 2 (the Tax Levy stage).

(i) *Laggard Jurisdiction's Tax Levy Problem*

Consider first the laggard jurisdiction  $J_3$ , and assume that it has installed the lowest governance level  $x_3$ . At the taxation stage,  $J_3$  chooses  $\tau_3$  to maximize its expected gross revenues, given its opponents' strategies ( $\tau_1$  and  $\tau_2$ ):

$$\tau_3 \cdot F(\hat{\theta}_{3,2}) = \tau_3 \cdot \left( \frac{\tau_2 - \tau_3}{x_2 - x_3} \right) \quad (8)$$

The first order conditions associated with maximizing this expression yield (after simplification):

$$\tau_3 = \frac{\tau_2}{2}, \quad (9)$$

which defines  $J_3$ 's reaction function to other players' conjectured taxation strategies. Note that the laggard jurisdiction responds only to the conjectured strategy of its immediate neighbor (the middling jurisdiction  $J_2$ ), and thus any shocks to the leader's ( $J_1$ 's) strategy affects the laggard only indirectly (through  $J_2$ 's reaction, as analyzed below).

(ii) *Middling Jurisdiction's Tax Levy Problem*

Recall that the middling jurisdiction's market is defined by an interior interval in  $\theta$ -space:

$$[\hat{\theta}_{3,2}, \hat{\theta}_{2,1}] = \left[ \frac{\tau_2 - \tau_3}{x_2 - x_3}, \frac{\tau_1 - \tau_2}{x_1 - x_2} \right] \quad (10)$$

$J_2$ 's tax problem takes competitors' locations and levies as given, and maximizes:

$$\tau_2 \cdot \left( F(\hat{\theta}_{2,1}) - F(\hat{\theta}_{3,2}) \right) = \tau_2 \cdot \left( \frac{\tau_1 - \tau_2}{x_1 - x_2} - \frac{\tau_2 - \tau_3}{x_2 - x_3} \right) \quad (11)$$

The first order conditions associated with maximizing this expression yield (after simplification):

$$\tau_2 = \frac{\tau_1}{2} \cdot \left( \frac{x_2 - x_3}{x_1 - x_3} \right) + \frac{\tau_3}{2} \cdot \left( \frac{x_1 - x_2}{x_1 - x_3} \right), \quad (12)$$

which defines  $J_2$ 's best response correspondence. Note that a conjectured strategy change by either  $J_1$  or  $J_3$  elicits reaction for the middling jurisdiction, but the reaction is more attenuated for any specific shock than in the previous case of the laggard. In particular, the middling jurisdiction is most responsive to strategic shocks by one of her immediate neighbors if her location is relatively distant from her other

immediate neighbor (allowing her to respond to the former without cannibalizing her competitive posture with the latter). Note as well that a version of this condition holds for any intermediate jurisdiction in the more general case of  $N > 3$  firms – a simple extension of this framework.

(iii) *Leader Jurisdiction's Tax Levy Problem*

Finally, consider the leader jurisdiction,  $J_1$ , who sets  $\tau_1$  to maximize:

$$\tau_1 \cdot \left(1 - F(\hat{\theta}_{2,1})\right) = \tau_1 \cdot \left(1 - \frac{\tau_1 - \tau_2}{x_1 - x_2}\right) \quad (13)$$

For  $J_1$ , the conditions associated with a maximum yield the following best response correspondence:

$$\tau_1 = \frac{x_1 - x_2}{2} + \frac{\tau_2}{2} \quad (14)$$

Notice that, like the laggard, the leader responds only to conjectured changes in the middling jurisdiction's strategy, and the laggard's does not directly enter. Note further that the leader is the only jurisdiction charging a positive price regardless of other players' strategies. That is, even if the laggard and the middling jurisdiction charge zero levy, the leader imposes a minimal levy of  $\frac{1}{2}(x_1 - x_2) > 0$ .

(iv) *Tax Levy Stage Game*

Collecting the best response functions for the jurisdictions (denoted above), it is possible to solve for the equilibrium tax, market share, and profitability values for each jurisdiction (as a function of the chosen jurisdictional regimes), recorded in the following table:

	$\tau_i$	<i>Mkt. share</i>	<i>Gross profits</i>
$J_1$	$\frac{(x_1 - x_2)}{2} + \frac{1}{6} \frac{(x_2 - x_3)(x_1 - x_2)}{(x_1 - x_3)}$	$\frac{1}{2} + \frac{1}{6} \frac{(x_1 - x_2)}{(x_1 - x_3)}$	$\frac{1}{36} \frac{(x_1 - x_2)(3x_1 + x_2 - 4x_3)^2}{(x_1 - x_3)^2}$
$J_2$	$\frac{1}{3} \frac{(x_2 - x_3)(x_1 - x_2)}{(x_1 - x_3)}$	$\frac{1}{3}$	$\frac{1}{9} \frac{(x_2 - x_3)(x_1 - x_2)}{(x_1 - x_3)}$
$J_3$	$\frac{1}{6} \frac{(x_2 - x_3)(x_1 - x_2)}{(x_1 - x_3)}$	$\frac{1}{6} \frac{(x_2 - x_3)}{(x_1 - x_3)}$	$\frac{1}{36} \frac{(x_2 - x_3)(x_1 - x_2)^2}{(x_1 - x_3)^2}$

A few aspects of this table are worth noting. First, it is clear that levied taxes increase in the quality of corporate governance, with  $J_1$  (the leader) charging the most. Second, note that the leader always commands at least half the market, while the laggard controls no more than one-sixth.

(v) *Investment Stage*

Finally, we move back to the first stage of the game, in which jurisdictions sequentially install corporate governance regimes to maximize their expected net payoff (i.e., their gross payoff less costs of installation). Following the assumption from the text that the costs of installing  $x_i$  are quadratic, and given by  $c(x_i) = \frac{1}{2}(x_i)^2$ , the net payoffs of the respective jurisdictions are given by:

$$\begin{aligned}
 \Pi_1(x_1, x_2, x_3) &= \frac{1}{36} \frac{(x_1 - x_2)(3x_1 + x_2 - 4x_3)^2}{(x_1 - x_3)^2} - \frac{(x_1)^2}{2} \\
 \Pi_2(x_1, x_2, x_3) &= \frac{1}{9} \frac{(x_2 - x_3)(x_1 - x_2)}{(x_1 - x_3)} - \frac{(x_2)^2}{2} \\
 \Pi_3(x_1, x_2, x_3) &= \frac{1}{36} \frac{(x_2 - x_3)(x_1 - x_2)^2}{(x_1 - x_3)^2} - \frac{(x_3)^2}{2}
 \end{aligned} \tag{15}$$

Start with last mover,  $J_3$ , who installs its regime observing what first two movers have already installed; i.e.,  $x_1 > x_2 > 0$ . Assuming the last mover is a laggard, and sets  $x_3 < x_2$  (an assumption that must be confirmed below), its marginal profit as a function of  $x_3$  is:

$$\begin{aligned}
 \frac{\partial \Pi_3}{\partial x_3} &= \frac{\partial}{\partial x_3} \left( \frac{1}{36} \frac{(x_2 - x_3)(x_1 - x_2)^2}{(x_1 - x_3)^2} - \frac{(x_3)^2}{2} \right) \\
 &= -\frac{(x_1 - x_2)^2(x_1 + x_3 - 2x_2)}{36(x_1 - x_3)^3} - x_3
 \end{aligned} \tag{16}$$

Note that this expression is strictly negative<sup>156</sup> if  $x_3 > 2x_2 - x_1$ , which is always satisfied if  $x_2 < \frac{1}{2}x_1$ , in which case the optimal value of  $x_3$  is a corner solution at  $x_3 = 0$ . (As will be shown below, the unique equilibrium of this game satisfies the above sufficiency condition, and thus the laggard will optimally choose to install the minimum quality corporate governance regime).

Now consider the middling jurisdiction, which observes  $x_1$  and conjectures that the laggard will install  $x_1$  as above. Assuming this jurisdiction chooses  $x_2 \in (x_3, x_1)$ , it maximizes:

$$\frac{(x_2 - x_1)(x_3 - x_2)}{9(x_3 - x_1)} - \frac{(x_2)^2}{2} \tag{17}$$

The first conditions associated with a maximum are (after simplification):

$$x_2^* = \frac{x_1 + x_3}{9x_1 - 9x_3 + 2} \tag{18}$$

It is straightforward to show that the above condition implies  $x_2^* < \frac{1}{2}x_1$ ,<sup>157</sup> and thus  $x_3^* = 0$ . Imposing this

<sup>156</sup>Note the marginal profit is also strictly negative if or if  $x_3 > x_1$ , but in this case the above profit function would no longer be appropriate because  $J_3$  would no longer be a laggard. This possibility is discussed later.

<sup>157</sup>Given the above optimality condition, we know that  $x_2 < \frac{x_1}{2}$  so long as

$$x_2 = \frac{x_1 + x_3}{9x_1 - 9x_3 + 2} < \frac{x_1}{2}$$

For this condition to hold, however, it must be the case that  $x_3 > \frac{9x_1^2}{9x_1 + 2}$ . However, it is easily verified that for any such values of  $x_3$ , the marginal payoff of the laggard jurisdiction is strictly negative.

condition allows one to simplify the middling jurisdiction's optimal governance choice condition:

$$x_2^* = \frac{x_1}{9x_1 + 2} \quad (19)$$

Anticipating the behavior of the middling and laggard jurisdictions (as described above), the leader jurisdiction sets  $x_1$  to maximize:

$$\frac{1}{36} \frac{(x_1 - x_2)(3x_1 + x_2 - 4x_3)^2}{(x_1 - x_3)^2} - \frac{(x_1)^2}{2} \quad (20)$$

subject to the backwards induction conditions that when they are called upon to play,  $J_2$  and  $J_3$  will play their equilibrium governance strategies derived above, and that the equilibrium of the resulting tax levy game then ensues. Substituting these conditions into the leader's payoff yields:

$$\frac{1}{36} \frac{x_1(9x_1 + 1)(27x_1 + 7)^2}{(9x_1 + 2)^3} - \frac{(x_1)^2}{2} \quad (21)$$

The associated maximum of this function occurs at:  $x_1 = 0.24095$ , which then allows one to generate the remaining equilibrium values, as reflected in the table from the main text (*supra*).

Finally, to confirm this is an equilibrium, it is necessary to check that neither  $J_1$  nor  $J_2$  would have an incentive to leap-frog any other jurisdiction in installing its corporate governance regime. Consider first whether the middling jurisdiction would have an incentive to leap-frog  $J_1$ , installing a governance regime  $x_2 > x_1$  in order to become the leader. Assuming the leader acted according to the above equilibrium, installing  $x_1 = 0.24095$ , the optimal governance value for  $x_2$  to install if she were interested in leading would be given by  $x_2 = 0.3397$ .  $J_2$ 's resulting profits in this case would be  $-0.019957 < 0$ , clearly less than her profits under the posited equilibrium. Consequently,  $J_2$  is better off by not leapfrogging the leader.

Similarly, consider the laggard's incentive to leapfrog  $J_1$ . Here  $J_3$  would set  $x_3$  to maximize its profits as a leader given the installed governance of the other jurisdictions. Similarly, the optimal leapfrogging governance level for  $J_3$  is  $x_3 = 0.3298$ , yielding profits of  $-0.021081 < 0$ . As before, the laggard would not have an incentive to leapfrog the leader. Finally, it is necessary to check whether the laggard might attempt to leapfrog only the middling jurisdiction. In this case, the laggard would set  $x_3 = 0.081887$ , yielding profits of  $-0.010286 < 0$ . Once again, it is not optimal for the laggard to leapfrog the middling's position.