Before International Tax Reform, We Need to Understand Why Firms Invert

Michael S. Knoll

University of Pennsylvania Carey Law School

Follow this and additional works at: https://scholarship.law.upenn.edu/faculty_scholarship

Part of the International Business Commons, International Economics Commons, Organizational Behavior and Theory Commons, Organizations Law Commons, Policy Design, Analysis, and Evaluation Commons, Political Economy Commons, Public Policy Commons, Taxation Commons, Taxation-Transnational Commons, and the Tax Law Commons

Repository Citation
Knoll, Michael S., "Before International Tax Reform, We Need to Understand Why Firms Invert" (2017). Faculty Scholarship at Penn Carey Law. 1938.
https://scholarship.law.upenn.edu/faculty_scholarship/1938

This Article is brought to you for free and open access by Penn Carey Law: Legal Scholarship Repository. It has been accepted for inclusion in Faculty Scholarship at Penn Carey Law by an authorized administrator of Penn Carey Law: Legal Scholarship Repository. For more information, please contact PennlawIR@law.upenn.edu.
Corporate inversions—cross-border acquisitions in which a U.S. corporation acquires a foreign target in such a manner that the foreign corporation emerges as the parent of the group, with the U.S. corporation as a wholly owned subsidiary—have generated substantial debate in academic, business and policy circles.

Many critics of corporate inversions have described inverting companies as “unpatriotic” for shirking their obligations to pay their fair share of taxes; they have applauded federal action to stem corporate inversions and have called for further restrictions.2 By some estimates, there is as much as $2.4 trillion in untaxed profits ($1 trillion of which is in cash) held abroad by U.S. corporations that could escape taxation if inversions were freely permitted.3 Some critics also argue that inversions have to be stopped because inverted companies are likely to move their headquarters offshore and shift their employment, investment, and research and development away from the United States.4

In contrast with these critics, managers of inverting corporations protest that they are not the villains they have been made out to be, but rather are the victims of an unfair and antiquated U.S. tax system that dates from a time when business was much more national than international.5 These managers blame the U.S. tax laws—which, they say, hamper their ability to compete with foreign rivals—and call for fundamental tax reform, including the elimination of U.S. taxation of active foreign income.6 At the center of their complaint, U.S. multinational corporations

SUMMARY
• A wave of corporate inversions by U.S. firms over the past two decades has generated substantial debate in academic, business, and policy circles.
• The core of the debate hinges on a couple of key economic questions: Do U.S. tax laws disadvantage U.S.-domiciled companies relative to their foreign competitors? And, if so, do inversions improve the competitiveness of U.S. multinational firms both abroad and at home?
• There is unfortunately little, if any, empirical work directly determining whether U.S.-based MNCs are currently tax-disadvantaged compared to their foreign rivals, or measuring the amount by which (if any) U.S.-based MNCs improve their competitive position by inverting.
• This brief, however, summarizes both old and new research that views these questions through the lens of corporations’ global effective tax rates (ETRs), and finds that the stronger case seems to be that U.S.-domiciled corporations are often tax-disadvantaged and that they can improve their competitive position by inverting.
• Additional evidence also suggests that U.S. MNCs can increase their after-tax cash flow by inverting.
• Inversions indicate that something is fundamentally wrong with the tax system. The brief concludes by discussing two feasible paths forward for reform.
(MNCs) claim that they are taxed more heavily than their foreign rivals on the same income.\(^8\) By inverting, U.S.-domiciled companies avoid the U.S. tax system’s disadvantageous treatment of resident businesses and place themselves on the same footing as their overseas competitors.

Proponents of this view argue that, as long as the U.S. tax system continues to favor foreign ownership over domestic ownership of corporate assets, if U.S. companies are prevented from inverting through transactions that allow the U.S. parent to retain control, they would instead become takeover targets for foreign corporations. Such takeovers, they claim, would likely produce larger shifts in headquarters, employment, investment, and R&D away from the United States than would inversions.\(^9\)

In considering these competing views, the central factual issue is whether the U.S. tax laws disadvantage U.S.-domiciled companies relative to their foreign competitors domiciled in countries with territorial tax systems. In a 2014 article, one prominent industry practitioner and researcher asserted “international business ‘competitiveness’ has nothing to do with the reasons for these deals.”\(^10\) His article has been cited for contending that U.S.-domiciled companies are not tax-disadvantaged relative to their foreign competitors and that U.S.-domiciled companies do not improve their competitive position by inverting.\(^11\) That article, among others, has led many tax experts to advocate for the United States to move its international tax system further away from those of its major trading partners by adopting “a true worldwide tax system—without deferral.”\(^12\) (The U.S. currently has a worldwide tax system with deferral, which has been derogatively described as an “ersatz territorial tax system.”\(^13\))

Ultimately, the claim that U.S. MNCs are on a tax par with their foreign rivals is an empirical one. Unfortunately, there is little, if any, empirical work directly determining whether U.S.-based MNCs currently are tax-advantaged, tax-disadvantaged, or roughly on par with their foreign rivals, or measuring the amount by which (if any) U.S.-based MNCs improve their competitive position by inverting.\(^14\) That said, the stronger case seems to be that U.S.-domiciled corporations are often tax-disadvantaged relative to their non-U.S. rivals and that they can improve their competitive position by inverting.

This is a policy problem because inversions are an indicator that some part of the tax system is poorly designed and potentially malfunctioning. This brief will explore the primary tax considerations that companies evaluate when making the decision to invert; highlight some key data from past inversions that shed light on management expectations of inversions; and discuss two policy avenues for addressing, in whole or in part, the ongoing use of corporate inversions.

**PRIMARY MOTIVATIONS FOR INVERTING**

There are two potential competitiveness arguments, or accounts, that can be made about inversions. U.S.-based MNCs might invert to improve their ability to compete with their foreign rivals for opportunities outside the United States (the outbound account) or inside the United States (the inbound account). Importantly, these two accounts are largely independent of one another. There is also a third account for inversions, although not strictly about competitiveness, that is closely related to the outbound account.

**NOTES**

2. E.g., in reference to inversions, Rep. Peter Welch, D-Vt., quoted in Renae Merle’s article, “Obama Criticizes Companies That Leave U.S. for Lower Taxes,” WashingtonPost.com, Apr. 5, 2016 (“We’re just hemorrhaging the resources that we need from companies to pay their fair share.”).
3. Citizens for Tax Justice, “Fortune 500 Companies Hold a Record $2.4 Trillion Offshore” (Mar 3, 2016) ($2.4 trillion unrepatriated profits of U.S. MNCs); Eric Platt, “Top 50 Boardroom Hoarders Sit on $1 Trillion in Cash,” Financial Times, May 11, 2015 (citing a company analysis that U.S. companies hold about $1.1 trillion in cash overseas). Those earnings are often said to be “locked out” of the United States.
6. E.g., Bret Wells, “What Corporate Inversions Teach About International Tax Reform,” Tax Notes, June 21, 2010, p. 1345 (arguing that the corporate inversions provide “clear and noncontroversial evidence” that non-U.S. MNCs have a tax advantage over U.S.-domiciled MNCs in both U.S. and foreign markets).
7. Galvin, supra note 5.
9. Testimony of Michelle Hanlon, the Howard W. Johnson Professor at the MIT Sloan School of Management, before the House Ways and Means Committee, at 3-4 (Feb. 24, 2016).
The “outbound account” describes how inversions operate as a self-help mechanism U.S. corporations use to achieve territorial taxation and hence eliminate the competitive disadvantage they have with foreign rivals. Under U.S. law, the active non-U.S. income earned directly by a U.S. corporation (or by a branch, an unincorporated entity owned by a U.S. corporation) is taxed by the United States as it is earned, whereas the active foreign income earned by a foreign subsidiary of a U.S. parent corporation is taxed by the United States only when that income is repatriated to the United States. Thus, the U.S. tax system encourages U.S. companies with foreign-source income that has not been taxed at a rate as high as the U.S. statutory tax rate to earn income through a foreign corporation and then defer repatriation.

In contrast with the United States and its worldwide tax system, most countries use territorial tax systems that exempt the active foreign income of domestic corporations. The argument that inversions by U.S. firms are a rational response to the disadvantage of worldwide taxation begins by recognizing that U.S. tax law considers a corporation to be domiciled where it is incorporated (regardless of the extent of its activities in that location). Thus, a firm incorporated in the United States is a U.S. corporation and is subject to worldwide taxation on its income; in contrast, a firm incorporated outside the United States is a non-U.S. corporation and is subject to U.S. taxation only on its income from U.S. sources. Moreover, if a non-U.S. corporation is domiciled in a country that has a territorial tax system, it generally will not pay home-country tax on active income earned outside its home jurisdiction.

Following an inversion, the parent of the group is a non-U.S. corporation, while the U.S. corporation that inverted is still a U.S. corporation. At this point, corporate groups often use a variety of tax planning techniques to shift income that would otherwise be taxed by the United States to the non-U.S. parent (or to non-U.S. corporations that are not subsidiaries of a U.S. corporation) in order to avoid ever subjecting that income to tax by the United States. These tactics include shifting income from subsidiaries of a U.S. corporation to corporations that are not subsidiaries of a U.S. corporation, allowing the businesses operated by subsidiaries of a U.S. corporation to wither while growing the businesses operated by subsidiaries of the foreign parent, and extensively using borrowing and other “hopscotch techniques” that shift cash and income from foreign subsidiaries of the U.S. corporation to the foreign parent without passing through the U.S. corporation. To the extent that these tactics are effective, the foreign-source income of the U.S. corporation is, after the inversion, no longer subject to U.S. tax. That, in turn, reduces the tax-induced competitive disadvantage experienced by U.S. corporations in foreign markets.

### IMPROVING COMPETITIVENESS AT HOME

A second argument, the “inbound account,” has been getting more attention recently. It holds that inversions improve the ability of U.S. companies to compete with non-U.S.-based MNCs for investments in the United States.

Large, successful U.S. corporations are taxed at what is an effectively flat rate of 35 percent. Income, however, is a net concept, and as has long been recognized, interest and royalty payments are very effective in shifting the source of income for tax purposes but otherwise have no eco-

### NOTES

16. See also statement of Peter R. Merrill, principal, PwC, hearing before the Senate Finance Committee, 113th Cong., 2d Sess., at 7-8 (July 22, 2014).
13 Kleinbard, supra note 10, p. 1056.
14 See testimony of Leslie Robinson, associate professor, Tuck School of Business at Dartmouth University, before the Finance Committee, “The U.S. Tax Code: Love It, Leave It, or Reform It?” (July 22, 2014).
15 It should be noted that the comparatively high U.S. statutory corporate tax rate of 35 percent—the highest among OECD countries—does not enter directly into the argument that the U.S. tax system disadvantages U.S.-domiciled MNCs relative to their foreign rivals. The relatively high U.S. corporate tax rate exacerbates that disadvantage but does not cause it. The disadvantage comes from the U.S. worldwide tax system, which subjects foreign income to U.S. taxation.
16 Internal Revenue Code (IRC) section 954(c).
17 A notable exception to this general rule is IRC section 7874, which treats a foreign corporation as a U.S. corporation if the owners of the U.S. corporation own more than 80 percent of the combined entity after a merger of a U.S. corporation and a foreign corporation.
U.S. MNCs are seeking to gain access to their large offshore stores of cash (i.e., prior offshore earnings), presumably to repurchase shares and raise their stock price. This is not a wholly independent reason, as it is very similar to the outbound account, which claims that companies invert in order to reduce the tax burden on their future overseas earnings. Both explanations are clearly predicated on the value of reaching earnings held offshore, which are worth more to the company, its managers, and investors when they can be freely accessed without additional tax cost. The difference between these two explanations is merely timing. The competitiveness argument simply takes a step back in time and recognizes that before profits are earned, they will be worth more if they can be accessed immediately or whenever desired without having to incur a repatriation tax. The difference is notable, however. Not all inverting companies already hold large offshore stocks of cash, and some high-profile proposed inversions, such as Walgreen’s aborted inversion, involve companies with little offshore cash.

**KEY (TAX RATE) DATA**

Any claim that U.S.-based MNCs are not at a competitive disadvantage relative to their foreign rivals rests on the premise that when properly viewed through the lens through which businesses make investment or capital budgeting decisions, U.S.-based MNCs are taxed no more heavily than their foreign rivals. Indeed, this is an argument that the incremental tax is not merely small, but that it is non-positive.

This is a difficult claim to prove empirically, not least of all because there is substantial diversity in the way businesses incorporate taxes into their decision-making. Thus, some companies might use a financial accounting approach, whereas others use a cash flow approach, and still others likely use both approaches. Such a wide divergence in practice makes it difficult to describe precisely how taxes affect the capital budgeting decisions of U.S.-domiciled corporations, which in turn makes it more difficult to draw strong conclusions about how taxes affect the capital budgeting decisions of U.S.-domiciled MNCs relative to those of foreign-domiciled MNCs.

With this caveat in mind, my research examines both the financial accounting approach (using ETRs, or effective tax rates) and cash flow approach (using MTRs, or marginal tax rates). In each case, I assume that

---

**NOTES**

21 The same relationship holds for the inbound argument. Kleinbard argues that U.S. MNCs strip income out of the United States and into low-tax jurisdictions and that U.S. MNCs invert to access prior earnings without additional tax. According to the inbound competitiveness argument, U.S. MNCs invert to access their future U.S. earnings more easily and cheaply.


24 Graham et al. asked tax executives what tax rate their business “primarily” used, making it unlikely that companies using more than one tax rate would indicate that they use multiple tax rates.

25 The ETR is the average rate at which a company’s pre-tax profits are taxed. It is calculated by dividing the taxes a company paid by its total taxable income. The MTR is the present value of the incremental taxes to be paid if a project is undertaken, divided by the present value of the project’s net cash flow. That tax rate reflects both when that cash flow is taxed and the rate at which it is taxed.

domestic and foreign MNCs incorporate taxes into their decision-making in the same manner (potentially differing only in the rates they use).  

**EFFECTIVE TAX RATES**

I first examine the financial accounting approach, as the ETR is the tax rate most often referenced during public debate over inversions. Although several studies find that U.S.-domiciled MNCs have no higher global ETRs than MNCs domiciled in the rest of the world, when one digs more deeply into those studies, one finds that on average U.S.-domiciled MNCs have higher global ETRs than do MNCs domiciled in most other market-oriented countries.

In particular, many U.S.-domiciled MNCs in the pharmaceuticals industry, an industry that has experienced many highly publicized inversions, have higher global ETRs than their foreign-domiciled rivals. There are also studies of specific inverting firms and the impact of inverting on their ETRs. Before 2004, U.S. MNCs could invert through so-called “naked inversions,” whereby the U.S. company could change residence by merging into a shell corporation registered in another jurisdiction. Studies using pre-2004 data consistently and uniformly show substantial declines in global ETRs following inversions, with the savings likely arising from both U.S. and foreign markets. After 2004, the target corporation could no longer be a shell; instead, the inversion had to involve a substantial target corporation with significant assets and business activity. Those rules, which have been expanded and tightened since 2004, have made it more difficult for U.S. MNCs to find an appropriate target for inversion. Also, since 2005, when the repatriation holiday ended, successful U.S. MNCs have been piling up cash overseas in apparent anticipation of a new holiday and they have become more effective in shifting income overseas. Thus, one might be reluctant to draw conclusions about the current situation from studies based on pre-2004 inversions.

Unfortunately, there are only a few recent studies of the effect of inverting on corporations’ global ETRs, and the studies that are available are neither uniform in their conclusions nor entirely convincing on the impact of inverting on a company’s global ETR. Even so, most recent studies suggest (and are generally consistent with) the notion that many U.S.-domiciled companies lower their global ETRs by inverting.

Another approach to the question of the expected effect of inverting on an MNC’s global ETR is to see what the management of an inverting company publicly say they expect to happen.

**TABLE 1: MANAGEMENT EXPECTATIONS ABOUT POST-INVERSION ETRS**

<table>
<thead>
<tr>
<th>Company</th>
<th>Year of Inversion</th>
<th>Pre-Inversion ETR</th>
<th>Expected ETR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steris Corp.</td>
<td>2015</td>
<td>32%</td>
<td>25%</td>
</tr>
<tr>
<td>Applied Materials</td>
<td>2015 (Canceled)</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td>Johnson Controls</td>
<td>2016</td>
<td>29%</td>
<td>18-19%</td>
</tr>
<tr>
<td>Waste Connections Inc.</td>
<td>2016</td>
<td>40%</td>
<td>27%</td>
</tr>
<tr>
<td>Baxalta</td>
<td>2016</td>
<td>23-24%</td>
<td>16-17%</td>
</tr>
<tr>
<td>Pfizer</td>
<td>2016 (Canceled)</td>
<td>25%</td>
<td>17-18%</td>
</tr>
<tr>
<td>CF Industries Holdings Inc.</td>
<td>2016 (Canceled)</td>
<td>35%</td>
<td>20%</td>
</tr>
</tbody>
</table>

NOTES

27 PwC, “Global Effective Tax Rates,” supra note (U.S.-domiciled. MNCs had higher global ETRs than MNCs from all the other countries studied except for Japan and Germany); and Markle & Shackelford, supra note. (U.S.-domiciled. MNCs had higher global ETRs than MNCs from all the other countries studied except for Japan) See also Martin A. Sullivan “Untangling Corporate Effective Tax Rates,” Tax Notes 1299, Mar. 16, 2015 (summarizing Avi-Yonah & Lahav, PwC and Markle-Shackelford studies).


29 Mihir A. Desai & James R. Hines, “Expectations and Expatriations: Tracing the Causes and Consequences of Corporate Inversions, 55 Nat’l Tax J. 4009 (2002) (concluding that there were both outbound and inbound tax savings from inversions); Jim A Seida & William F. Wempe, “Effective Tax Rate Changes and Earnings Stripping Following Corporate Inversion,” 57 Nat’l Tax J. 805 (2004) (finding tax savings from inverting, most of which could be attributed to earnings stripping); Bret Wells, “What Corporate Inversions Teach About International Tax Reform,” Tax Notes 1345, June 21, 2010 (three oil services companies that inverted in 2002 found their global ETRs fall by between 7 and 16 percent).

30 Doron Narozski, The True Economic Effects of Corporate Inversions. Tax Notes 1819, June 27, 2016 (finding large drops in global ETRs following inversions for firms regardless of size); Elizabeth Chorvat, “Expectations and Expatriations: A Long-Run Event Study,” University of Chicago Public Law working paper no. 445 (Sept. 20, 2015) (finding that inverting firms produce excess returns that can be attributed to intangibles held offshore, but cannot distinguish between tax savings and undervaluation of those assets...
pen to their firm’s global ETR after inverting. I looked at the inversion transactions announced since 2015 to see what management said about expected future tax rates (see Table 1). Although not all inverting companies publicly stated that they expected a decline in their global ETRs, many did.  

Viewed through the lens of corporations’ global ETRs, the claim that inverting U.S.-domiciled companies do not improve their competitive position by inverting is not supported by the data and is inconsistent with most studies. However, that approach buries all the hard questions about how U.S. companies and their foreign rivals are taxed by subsuming those questions under a single, widely available number — the global ETR. The main problem with that approach is that it is unclear why multinational companies, especially MNCs operating in countries with very different tax systems and tax rates, should make capital budgeting decisions in individual markets using global ETRs. Instead, it makes more sense for companies whose managers are focused exclusively on accounting earnings to make investment decisions using whatever accounting tax rates their managers expect their companies to incur on the earnings generated by those investments. Unfortunately, we simply do not know what MNCs’ ETRs are in specific markets, much less how they differ based on where the company is domiciled. Without any studies to rely on, any conclusion about whether inversions lower market-specific ETRs in specified identified markets is shaky.

CASH FLOWS

I now examine the after-tax cash flow consequences of inverting, as finance theory emphasizes cash flows, not earnings. There is strong evidence that U.S. companies incur costs from holding their cash overseas to avoid repatriation taxes.  

The 2004–2005 tax holiday that reduced the maximum repatriation tax rate from 35 percent to 5.25 percent saw 843 U.S. MNCs repatriate in aggregate $362 billion (of which $312 billion was subject to the reduced holiday tax rate). Such large and widespread repatriations are inconsistent with the notion that it is costless for U.S. MNCs to maintain foreign cash balances that remain subject to taxation. If it were costless for companies to keep repatriated earnings overseas, presumably they would have forgone repatriation during the holiday. At the same time, there is a lack of evidence that those costs are offset by the costs of non-U.S.-domiciled MNC competitors complying with their home-country anti-abuse regimes, which are sometimes viewed as stricter and more costly to obey than the more porous U.S. anti-abuse rules.

POLICY PATHS FORWARD

Critics of inversions need to appreciate the differences between the U.S. tax system (worldwide with deferral) and most other large country tax systems (territorial), as well as the arguments for inversions laid out in this Issue Brief. They also should acknowledge that the decline in inversions in recent years is not because the tax benefits of foreign domicile have been eliminated, but rather because of changes in U.S. law that penalize U.S. MNCs for inverting and fear of becoming the subject of a tweet from President Trump that could send a company’s stock price plummeting. Policymakers who ignore this state of affairs are likely to adopt policies that produce adverse effects. Inversions indicate that something is fundamentally wrong with the U.S. tax system, and there are two obvious and feasible paths forward. The first path is more holistic. It would involve

NOTES

before the inversion); but see Rita Nevada Gunn & Thomas Z. Lys, “The Paradoxical Impact of Corporate Inversions on US Tax Revenue (working paper August 21, 2016) (arguing that inversions increase U.S. taxes because firms pay as much in tax, but shareholders pay more).  

31 In at least two inversions (IHS, which merged with the U.K.’s Markit, and Burger King, which merged with Canada’s Tim Hortons), management said it expected little change in ETR following the transaction.  

32 Robinson, Testimony, supra note 14.  


36 Robinson, Testimony, supra note 14 (noting that we lack the studies that would allow us to compare the costs of being subject to different anti-abuse regimes).
tightening U.S. anti-abuse rules in order to stop earnings stripping as a preliminary step in the process of laying the foundation for a future territorial system. Once stricter rules are in place, the U.S. could then lower corporate tax rates and officially adopt a territorial system. The U.S. will never convince the rest of the world to go back to a system of worldwide taxation, which means competitiveness concerns will persist as long as the U.S. seeks to tax the active foreign income of U.S.-domiciled MNCs.

The second path is less robust, in that it does not address the competitiveness motivations for inverting. The U.S. could lower the corporate tax rate for foreign earned income only and eliminate deferral. Such an approach would leave U.S. MNCs at a competitive disadvantage and hence would continue to encourage both inversions and foreign acquisitions of U.S. corporations, but it would eliminate the incentive for U.S. firms to accumulate earnings overseas. If policymakers follow this route, the new rate they set will answer the question, intentionally or not, how the United States balances the revenue from taxing the overseas earnings of U.S. multinationals against the value of leveling the playing field between U.S. and foreign corporations in overseas markets. In the end, policymakers will have to set that balance.
ABOUT THE PENN WHARTON PUBLIC POLICY INITIATIVE ISSUE BRIEFS

Penn Wharton PPI publishes issue briefs at least once a month, tackling issues that are varied but share one common thread: they are central to the economic health of the nation and the American people. These Issue Briefs are nonpartisan, knowledge-driven documents written by Wharton and Penn faculty in their specific areas of expertise.

CONTACT THE PENN WHARTON PUBLIC POLICY INITIATIVE

At Penn
Steinberg Hall-Dietrich Hall, Room 201
Philadelphia, PA 19104-6302
+1.215.898.1197

In Washington, DC
300 New Jersey Avenue NW, Suite 900
Washington, DC 20001
+1.202.870.2655

For additional copies, please visit the Penn Wharton PPI website at publicpolicy.wharton.upenn.edu.
Follow us on Twitter: @PennWhartonPPI

ABOUT THE AUTHOR

MICHAEL KNOLL, JD, PhD

Professor of Law, University of Pennsylvania Law School
Professor of Real Estate, The Wharton School

Michael Knoll is the Theodore K. Warner Professor of Law at the University of Pennsylvania Law School, Professor of Real Estate at the Wharton School of the University of Pennsylvania, and Co-Director of the Center for Tax Law and Policy at the University of Pennsylvania. He also served as Deputy Dean of Penn Law from 2014 to 2016. Professor Knoll is an insightful commentator on how income tax laws affect business and investment decisions and a creative proponent of how those laws could be redesigned. Much of his recent research involves the application of finance principles to questions of international tax policy, especially the connection between taxation and competitiveness. Professor Knoll’s recent research includes writings on sovereign wealth funds, private equity, international tax arbitrage, the impact of the corporate income tax on the competitiveness of U.S. industries, and tax discrimination within the European Union and between the U.S. states.