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Beyond Territorial and Worldwide Systems of International Taxation

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Abstract: The dialogue regarding the international taxation of multinational firms should move beyond the rhetoric of comparing supposedly territorial and worldwide systems of taxation. Among major countries, there are no pure territorial or pure worldwide systems, just systems that lie on a spectrum between these extremes. Once one recognizes the characteristics that determine where on the spectrum particular countries lie, it is far from clear that purportedly worldwide countries are further to the "pure worldwide" end of the spectrum than are many purportedly territorial countries. Still, along the spectrum, tradeoffs between "competitiveness" and efficient capital allocation (with attendant effects on the home country tax base) are inevitable. Thus, I describe international tax system design proposals that might transcend this tradeoff, examining several such options. Finally, I discuss the current efforts of the BEPS process.

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I. An Obsolete Distinction

According to many observers, the United States is the sole remaining notable country to have a worldwide system of taxation, after the U.K. and Japan adopted an territorial system in 2009.[1] This anomalous position quickly leads such observers to infer that the United States is lagging behind other countries, and therefore at a disadvantage due to the global nature of multinational enterprise. Yet, others beg to differ. According to President Obama's Chief Economic Adviser, the United States does have a territorial system, it is just a "stupid territorial system", since "we have a low or negative tax rate on overseas income but we do it in a way that requires corporations to go through a variety of hoops that are very inefficient."[2]

This paper will argue that the labels "territorial" and "worldwide" are outdated and unhelpful. It is difficult to find a pure territorial or a pure worldwide system; in reality, all major countries lie on the spectrum between these extremes. Furthermore, once one recognizes the characteristics that determine where on the spectrum particular countries lie, it is far from clear that purportedly worldwide countries are further to the "pure worldwide" end of the spectrum than are many purportedly territorial countries.

In terms of abstract theory, there is a clear distinction between worldwide and territorial systems of international taxation.[3] While both alleviate double-taxation, they have different efficiency properties. Under a pure territorial system, a multinational firm is only taxed on its domestic income, but foreign income is exempt from taxation. If all

[1] Why such observers do not classify China as an important country is unclear, since China is now the largest economy in the world on a purchasing power basis, and they have a worldwide system of taxation. Presumably observers are focusing on OECD countries.
[2] See speech by Jason Furman, Tax Council Policy Institute, February 20, 2014, p.4.
[3] Territorial systems are also referred to as "exemption" systems, since they exempt foreign income from taxation. Worldwide systems are also referred to as "credit" systems, since taxpayers pay tax based on their worldwide income but receive a tax credit for foreign taxes paid.

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countries pursued such a system, firms from any pair of countries would stand on equal footing when competing in foreign markets. The foreign country would tax income of each affiliate firm at the foreign country tax rate, but there would be no residual taxation in the parent countries. There would also be no tax effect on decisions to repatriate foreign income, since repatriations would have no tax consequence. However, there would be an incentive for multinational firms based in high-tax countries to earn income in low-tax countries, since such income is taxed more lightly. This has the potential to distort capital allocation worldwide, since low-tax countries will receive more investment relative to high-tax countries, driving down the pre-tax marginal product of capital in low-tax countries until the post-tax returns are the same across countries.

In contrast, under a pure worldwide system, a multinational firm is currently taxed on its worldwide income, and a tax credit is allowed for foreign taxes paid, in order to avoid double taxation. Thus, since an investor will face the same post-tax return irrespective of the tax rates of local countries, capital will be allocated efficiently across countries. However, firms based in high-tax countries would face a competitive disadvantage relative to firms based in low-tax countries, when competing in low-tax foreign markets. In a pure worldwide tax system, there is also no tax burden on repatriation, since all foreign income is taxed currently.

In practice, we do not typically observe either system in its pure form, and the impurities of tax system design have large substantive implications for the incentives faced by multinational firms. Often, actual real-world territorial systems tax some types of foreign income, exert tax influences on repatriation decisions, and navigate balancing acts between measures that protect the domestic tax base and those that lighten the

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burden on foreign income. Often, actual worldwide systems tax many types of foreign income lightly or not at all, exert even larger tax effects on repatriation decisions, and face the same balancing act between domestic tax base protection and the business interests of resident multinational firms.

Section II will discuss four characteristics that determine where countries lie on the spectrum between two tax systems that exist mostly in theory: the pure territorial tax system and the pure worldwide tax system. Country tax systems should be evaluated based on where along this spectrum they lie, not based on the simplistic and often misleading labels of "territorial" or "worldwide".

Section III will discuss how tradeoffs between "competitiveness" and efficient capital allocation (with attendant effects on the home country tax base) are inevitable along the spectrum between pure tax systems. In this paper, competitiveness will refer only to whether resident multinational firms face a tax disadvantage when competing in foreign markets against multinational firms based in other countries. That said, broader notions of competitiveness are likely more relevant to national welfare, and these will also be discussed in this section.

Section IV will consider whether alternative tax design proposals would allow countries to transcend this seemingly unavoidable tradeoff, potentially addressing both "competitiveness" and capital allocation/base protection concerns simultaneously. Finally, the paper will discuss the OECD's BEPS (base erosion and profit shifting) process.

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II. Where on the Spectrum Do Countries lie?

Four key characteristics determine where countries lie on the spectrum between the ideals of "pure territorial" and "pure worldwide" tax systems: (1) what types of foreign income are taxed, (2) the effective tax burden on taxed foreign income, (3) the tax consequences of repatriation, and (4) the incentive to earn income in low-tax locations. Table 1 illustrates the spectrum.

Table 1: The Spectrum
(All Major Countries Are in the Middle)

	Pure Territorial System	**Hybrid (in between systems)**	**Pure Worldwide System**
1. Share of Foreign Income Taxed	0%	=> Increasing =>	100%
2. Effective Tax Burden on Foreign Income	0%	=> Increasing =>	Domestic Tax Rate
3. Tax Consequences of Repatriation	Not Tax Relevant	=> Increasing tax influence => then dropping to zero again	Not Tax Relevant
4. Relative Incentive to Earn Income in Low-Tax Countries	High	=> Decreasing =>	None

The classification and separation of these characteristics is a matter of judgment, but each of them capture a distinct tax system feature that can be assessed separately. Of course, there is some degree of overlap between these characteristics. For example, the *types* of foreign income that are taxed is distinct from the *tax burden* on the foreign income that is taxed, but the *overall* tax burden on foreign income depends on both considerations. Also, the incentive to earn income in low tax countries is likely a

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consequence of both how such income is taxed and how difficult that income is to repatriate, so that fourth characteristic could be considered an outcome of the first three characteristics. Still, the types of evaluative evidence used to establish each of the characteristics are different.

Also, some of these characteristics capture average tax burdens (for example, the share of the foreign income that is taxed and the effective tax burden on foreign income) and other characteristics affect marginal incentives (the marginal incentive to repatriate a dollar of foreign earnings, or the marginal incentive to earn a dollar of profit abroad rather than at home). Both average and marginal features of tax incentives are important in economic decision making.

Most countries lie somewhere in the middle of the spectrum in terms of each of these four characteristics. However, labeling countries as "territorial" or "worldwide" doesn't inform our understanding of where countries truly lie on this spectrum between two pure, yet largely hypothetical, tax systems. The remainder of this section will consider each of the four characteristics of the spectrum in more detail, discussing how we might move beyond labels to truly evaluate countries' tax systems.

What types of foreign income are taxed?

Under a pure territorial system, no foreign income would be taxed, and under a pure worldwide system, all foreign income would be taxed. In reality, most countries lie between these extremes. For example, many territorial countries have controlled foreign corporation [CFC] laws that seek to limit abusive tax avoidance. As Arnold (2012) explains, the point of CFC laws is to distinguish "good" foreign income from "bad" foreign income. While the United States was the first to adopt CFC laws in 1962, at least

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28 countries adopted CFC laws between the 1970s and 2010. Arnold compares U.S. CFC rules with those from eight other countries, and he concludes that they are broadly similar in reach across countries, although some countries (in particular, Brazil) have broader CFC laws than the United States in most dimensions, and some countries have narrower CFC laws in some dimensions.

The Joint Committee on Taxation (2011a) also provides detail on other countries' CFC laws. Some countries (e.g., France, Germany, Italy, and Japan) have very broad CFC laws that go beyond currently taxing passive foreign income; active foreign income is also currently taxed, when such income is insufficiently taxed in the source country. The French benchmark for insufficient taxation is less than half the French rate; the Japanese benchmark is less than 20%.

Beyond CFC laws, many territorial countries have other provisions aimed at countering corporate tax base erosion that may affect the taxation of foreign income, including thin capitalization rules, which are widely used, as noted in Joint Committee of Taxation (2011a). Indeed, it is clear that many territorial countries tax some foreign income.

It is also the case that worldwide countries may exempt much foreign income from tax. For starters, foreign income is typically not taxed until repatriation, so foreign income that is reinvested abroad can escape home taxation indefinitely. Cross-crediting (the practice of using excess credits from operations in high-tax countries to offset tax due on income earned in low-tax countries) can also reduce the domestic taxation of foreign income. One key point, often underappreciated, is that tax credits from dividends can offset tax that would otherwise be due on other sources of foreign income, such as

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royalty income. Thus, it is possible that a move to a territorial system could *raise* rather than lower the share of foreign income that is taxed.

Beyond these well-known features of worldwide systems, it is also the case that U.S. multinational firms, despite residing in a purportedly worldwide country, have become particularly adept at generating stateless income, income that goes untaxed in any jurisdiction.[4] Taking all these considerations together, it is not clear whether purportedly worldwide countries indeed tax a greater share of their multinational firms' foreign income than do purportedly territorial countries.

What is the effective tax burden on foreign income?

One way to consider the effective tax burden on foreign income is to compare effective tax rates for multinational firms that are based in different countries. Yet, in studies of multinational firm effective tax rates, there is no pattern that distinguishes purportedly territorial countries from purportedly worldwide countries. For example, Markle and Shackelford (2012) perform a regression analysis of the determinants of effective tax rates for over 11,000 public corporations from 82 countries during the period 1988–2009. They find that firms resident in countries with a worldwide tax system have lower effective tax rates than firms resident in countries with a territorial tax system, controlling for other factors. Maffini (2012) analyzes ORBIS firm-level data for over 3,000 companies in 15 OECD countries over the period 2003 to 2007. Although worldwide countries do tend to have higher statutory rates than territorial countries in this sample, controlling for statutory tax rates in the home country, there is no difference in the effective tax rates of firms operating under a worldwide versus territorial tax system.

[4] See Kleinbard (2011a,b) for detailed elaborations on the generation of stateless income and related policy challenges.

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While studies differ on where the United States fits relative to peer countries, Avi-Yonah and Lahav (2011) finds that U.S. multinational firms have effective tax rates that are 4% lower than MNCs based in the European Union. Others, including Markle and Shackelford, find that the United States has relatively high effective tax rates. It is important to note that these calculations are more complicated than they might seem, and effective tax rates vary a great deal depending on methodological issues. For example, the General Accounting Office (GAO, 2013, p.1) found that "For tax year 2010 (the most recent year with information available), profitable U.S. corporations that filed a Schedule M-3 paid U.S. federal income taxes amounting to about 13 percent of the pretax worldwide income that they reported in their financial statements." The rate is higher if foreign and state and local income taxes are included, at 17%. If firms with losses are included, that raises the effective tax rate averages further, to about 16% at the federal level, and about 22% inclusive of other taxes. Findings from a 2008 GAO study indicate that effective tax rates are quite heterogeneous across firms; in 2004, for example, 32% of firms had single-digit effective tax rates.

One indisputable point is that the United States raises very little additional revenue by taxing the foreign income of its residence firms. In part, this is due to the fact that foreign income is rarely repatriated in a manner that generates foreign tax payments. As Altshuler and Grubert (2013, p.31) report, using 2006 data, only $32b is collected on *all* foreign source income, amounting to less than 4% of foreign income. "But the amount raised from dividends represents only a very small portion of this revenue. Indeed if dividends are removed from taxable foreign income, total U.S. tax revenue increases by about one billion. The dividends taxable on the margin after credits are more than offset

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by the credits originating with dividends that currently spill over to other income."[5] Gravelle (2012, p.11) makes a similar point, using 2007 and 2008 data. Effective tax rates on *all* foreign income were 7% in 2007 and 5% in 2008, but royalties were shielded from tax by excess credits. Without this effect, tax revenues would have been higher. Indeed, since royalties may be taxed more heavily under a territorial system than under a worldwide system, this also affects the overall tax burden on foreign income.

Data from other countries is less complete, but Liu (2014) notes that the U.K. Treasury estimated a very low cost of moving to territorial taxation, less than one percent of the corporate tax liability, due to the fact that very little revenue was collected on repatriated dividends under their prior worldwide system.

How does the tax system affect repatriation decisions?

In theory, there should be no tax incentive affecting repatriation decisions in either a pure territorial system or a pure worldwide system. However, since *actual* worldwide systems typically allow domestic tax on foreign income to be deferred until repatriation, this creates a possible "lock out" effect whereby firms will be reluctant to repatriate dividends from low-tax countries due to the tax cost associated with bringing the money home. Of course, absent deferral, this would not be a concern.

However, even in the presence of deferral, there may not be a tax disincentive affecting repatriation for mature firms. As Hartman (1985) showed, if the ultimate U.S. taxation of income earned in low-tax countries is inevitable, then repatriation taxes do not affect the decisions of mature firms regarding whether to reinvest funds abroad or repatriate. The decision between reinvestment and repatriation depends on the relative

[5] This quote is from the draft version of the 2013 *National Tax Journal* paper; the full quote is missing from the final version, presumably due to space limitations.

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returns of the two investment options; the cost of repatriating funds is incurred irrespective of whether one reinvests the funds or repatriates them.[6]

Still, in the case of temporary changes in the tax cost of repatriation, the Hartman result no longer holds. For example, if there is a temporary holiday for dividend repatriation, one would expect increased repatriations during the holiday, and reduced repatriations in the surrounding periods. Further, *expectations* of holidays or changes in tax treatment can also make investors tax sensitive in their repatriation decisions.

There is substantial evidence that firms respond to these temporary changes in tax costs. In the United States, the tax holiday of the American Jobs Creation Act generated a huge temporary surge in repatriations, although studies concluded that the extra cash was used for dividends and share repurchases, not job creation or new US investment.[7] Many argue that the current build up of unrepatriated foreign income by U.S. multinational firms is due to anticipation of future holidays, or perhaps the adoption of a territorial system by the United States.[8]

Under a territorial system, there should be no tax distinctive affecting dividend repatriation. Yet, there are caveats in practice. As the Joint Committee on Taxation (2011b, p.84) notes, repatriation decisions would still be distorted if the United States adopted a territorial system. Under an territorial system, tax distortions to repatriation

[6] See Clausing (2005) for a more detailed development of this point. Also note that the Hartman result only applies to mature firms. Immature firms may have an incentive to underinvest in order to tax full advantage of deferral.
[7] For a review of the evidence, see Gravelle and Marples (2011).
[8] Estimates indicate that nearly a trillion dollars is held by US corporations abroad, accumulated over time from booking income in low-tax countries. These funds are often held in US financial institutions, and are thus available to US capital markets, but US multinational corporations are constrained in their use of these funds. These funds are assets of the firm that increase the firm's credit worthiness; however, firms cannot return the cash to shareholders as dividends or share repurchases without incurring US corporate tax liabilities upon repatriation.

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would occur under several possible conditions: if dividends were not wholly exempt, if not all levels of foreign ownership generated exemption, or if foreign earnings were required to have been subject to tax in order to qualify for exemption.

In part for these reasons, the predicted effects on repatriation from adoption of a territorial system are typically small, and Gravelle (2012, p.14) notes that the effects of the recent adoptions of territorial systems in Japan and the U.K. were modest. Given the perceived permanence of these changes, this could be due to the Hartman result; taxpayers are most responsive to temporary changes that affect the relative cost of repatriating dividends at a particular time.

Does the tax system incentivize earning income in low-tax countries?

In theory, firms from countries based in pure territorial systems should be far more tax-responsive than firms from countries based in pure worldwide systems. In particular, if income from low-tax countries is untaxed at home, both economic activity in low-tax countries, and the shifting of profits to such countries, will be encouraged. Given the difficulty of establishing the degree to which foreign income is taxed in *existing* worldwide and territorial countries, however, this difference in behavior may be muted or nonexistent.

Further, empirical work in this area is likely to be fraught by the difficulties associated with assigning countries particular labels, as *territorial* or *worldwide*. In the end, it may be more practical to study firms based in particular countries (e.g., France and the United States) and consider the differences in behavior as indicating the effect of particular (French and American) tax systems rather than characterizing such differences as indicative of the differences between *territorial* or *worldwide* systems in general.

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Perhaps because of such difficulties of classification, the prior literature in this area has not reached a consensus verdict. Hajkova et al (2006), Slemrod (1990), Wei (2000), Altshuler and Grubert (2001), and Benassy-Quere et al (2003) do not find evidence of tax rate responsiveness that varies between territorial and worldwide countries. Yet some evidence indicates that tax system choices are consequential. Hines (1996), Wijerweera et al (2007), Barrios et al. (2012), Smart (2010), and Gropp and Kostial (2000) all show evidence of differences in tax responsiveness between worldwide and territorial countries.

While it is difficult to cleanly classify countries into such categories, Clausing and Shaviro (2011) classified countries with a bit more subtlety: as territorial, worldwide, or hybrid systems, allowing a group of countries that have characteristics of both territorial and worldwide systems a third designation. This work considered how the tax-sensitivity of foreign direct investment depended on home-country tax systems, using a comprehensive data set of 30 source countries investing in 79 host countries from 1985 to 2007. There was a clear patterns of heightened tax sensitivity in non-worldwide countries (territorial or hybrid), relative to worldwide countries.

De Mooij and Ederveen (2003, 2008) have conducted meta-analyses of foreign direct investment studies, examining the results of many studies to investigate how the tax sensitivity of foreign direct investment depends on study characteristics. Tax sensitivities are considered in terms of semi-elasticities, or how a percentage point change in the tax rate will affect a percentage response in foreign direct investment. In the 2003 meta-analysis, they conclude that studies of territorial country investors exhibit more tax responsiveness than worldwide country analyses, although this outcome does

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not persist if one eliminates extreme findings. The 2008 meta-analysis also finds that studies based on territorial countries (162 of the semi-elasticities) have higher elasticities than those based on worldwide countries (118 semi-elasticities). The point estimate of the semi-elasticity difference between the two groups of studies is about 1.0.

The effect of the tax system on headquarters location is unclear. Clausing (2010) considers how tax policy variables, including the tax system (worldwide, territorial, or hybrid), affect the location of headquarters of the world's largest firms (the *Fortune 500*) between 1990 and 2009. I find no effect of tax system classification on firm headquarters location. Morse and Allen (2013) find that U.S. firms undertaking initial public offerings (IPOs) also do not appear to be particularly tax-sensitive in their headquarters decisions.

Still, tax system influences on headquarters location have become an increasing policy concern, due to a recent spate of corporate inversions, discussed in Clausing (2014), Kleinbard (2014), and Shay (2014). Many observers have concluded that firms are motivated to invert in order to better facilitate tax-free access to unrepatriated foreign earnings in low-tax countries and to facilitate greater income shifting in the future. Also, Voget (2011) finds that multinational firms facing higher repatriation tax burdens are more likely to relocate their headquarters.[9]

While there are many papers that consider how tax system differences of home countries affect the tax responsiveness of real activity, there are far fewer that consider how tax systems affect income shifting behavior. One exception is Markle (2012); using data from ORBIS over the period 2004-2008, Markle finds that multinationals based in territorial countries shift more income than those in worldwide countries. However, the

[9] This raises larger questions about why policy-makers should care about headquarters activities, and what policies would be most effective for promoting the sorts of beneficial economic effects that headquarters may create. These issues are discussed at length in Clausing (2010).

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estimated differences are limited to income shifting between the parent country and the affiliate country, rather than shifting among foreign affiliates (which is not different). Also, the difference is limited to the subset of firms that are financially constrained; there is no difference in income shifting behavior for the subsample of firms that is not financially constrained. Using a similar approach, Dyreng and Markle (2013) conclude that financially constrained multinational firms would increase outbound income shifting by 2% to 19% if the United States were to adopt a territorial system of taxation.

What have we learned from Japan and the United Kingdom?

One possible source of information about the relevance of the territorial and worldwide distinction in practice is the transitions of the United Kingdom and Japan to territorial systems in 2009. As Altshuler, Shay, and Toder (2014) emphasize, there are unique features associated with each country. In the United Kingdom case, an important factor was European Union membership, which limited the government's ability to adopt policies that would apply different tax rules to U.K. and E.U. residents. Further, European Court of Justice rulings led to broad changes in the U.K. CFC laws in 2012, substantially reducing their prior breadth.[10] However, repatriation incentives were not deemed to be an important justification for the transition to a territorial system, since under prior law, multinational firms could still make use of offshore funds without incurring tax costs.

Evidence on the reform is limited due to the short time-period for study. Matheson, Perry, and Veung (2013) use bilateral data on U.K. foreign direct investment abroad over the period 2002 to 2010, finding that foreign investment became more tax

[10] The present rules are quite complicated, but they exclude both active income and a large share of financing income.

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sensitive after the transition to territoriality. In a preliminary draft, Liu (2014) uses ORBIS data, finding that U.K. investment increases in low-tax countries after the territorial system is adopted.

The unique nature of the Japanese case is emphasized by Altshuler, Shay, and Toder, who note that the Japanese tax culture is quite different from that in the United States and many other countries. In particular, there is much less emphasis on tax planning and avoidance strategies. Corporate tax directors have the reputation of being more concerned with compliance, and large corporate tax payments are made dutifully.

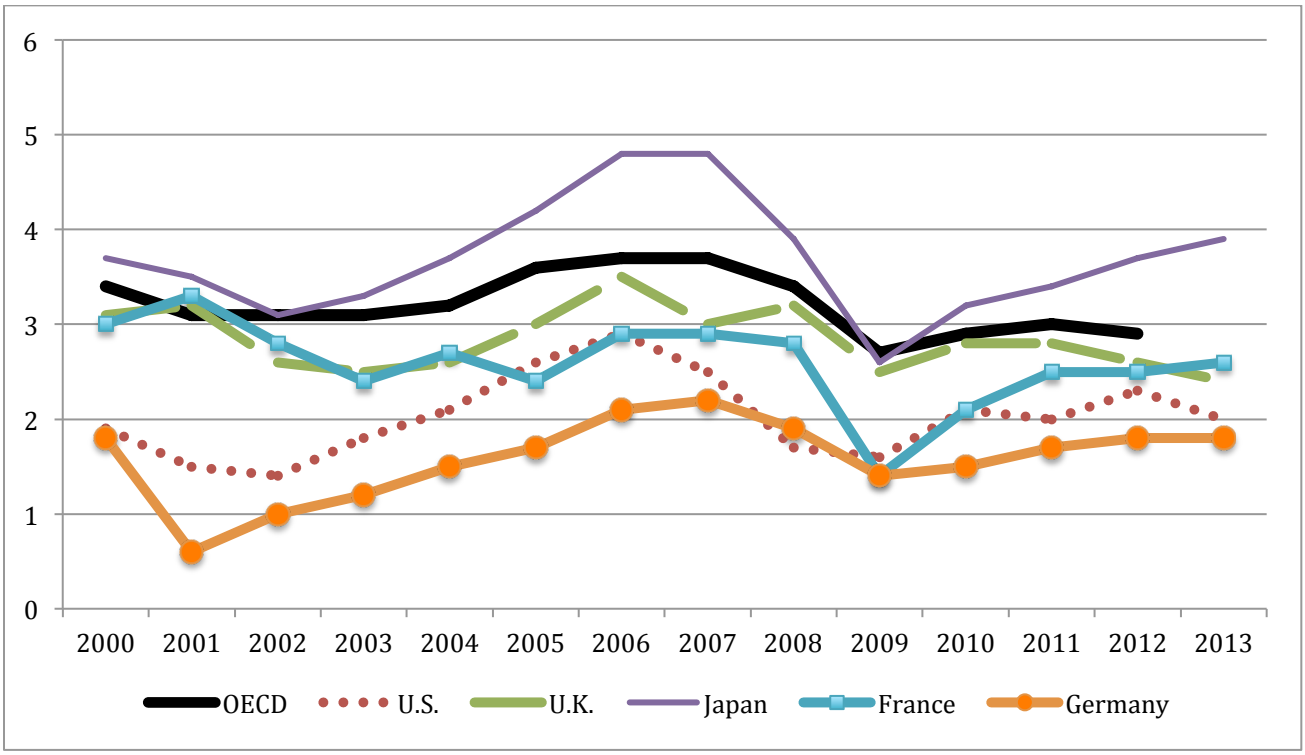
The Japanese move toward the territorial system was justified as necessary to encourage repatriation, to simplify the tax system, and to increase the competitiveness of Japanese headquartered firms. Under the current Japanese system, dividends are 95% excludable, and broad CFC rules continue to apply. Hasegawa and Kiyota (2013) find that dividends increased after the transition to a more territorial system for firms that had paid dividends previously, but they also note that Japan is "quite distant from" a pure territorial system.

Figure 1 shows the corporate tax revenue experience for the United Kingdom, Japan, the United States, France, Germany, and the OECD over the period 2000-2010. One can easily see the dip in revenues associated with the Great Recession, but the recovery in revenues has varied substantially, being steepest in France and Japan, more shallow in Germany and the United States, flat in the OECD as a whole, and diminishing in the United Kingdom. My earlier work (in Clausing (2007, 2008)) showed that worldwide countries (and hybrid countries) tend to collect more revenue as a share of

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GDP than territorial countries, controlling for other factors, including the corporate tax rate.

Figure 1: Corporate Tax Revenues as a Share of GDP, all levels of government



Source: OECD *Revenue Statistics*

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III. Inevitable Tradeoffs Along the Spectrum

As section II made clear, most countries' tax systems lie somewhere on a spectrum between the two poles of a pure territorial system and a pure worldwide system. Where particular tax systems fall on this spectrum can be determined by considering several indicators: (i) how much foreign income is taxed, (ii) the effective tax burden on foreign income, (iii) the tax implications of repatriation, and (iv) the tax incentive (or disincentive) to earn income in low-tax (or high-tax) countries. Toward the territorial end of the spectrum, foreign income is lightly taxed, there is a strong incentive to earn income in low-tax countries, and there is little tax burden on repatriated funds. Toward the worldwide end of the spectrum, foreign income is more heavily taxed, reducing the incentive to earn income in low-tax countries (and reducing the *disincentive* to earn income in high-tax countries). Also, in the presence of deferral, a worldwide system may create a reluctance to repatriate funds, particularly if firms are immature or when the tax burden on repatriation is expected to change.

Thus, along the spectrum there is an inevitable tradeoff between two desiderata. Toward the territorial end of the spectrum, home multinational firms will have little (tax-associated) worries of competing abroad, since their tax burdens will not be higher than those of other firms operating in a given location. While there is no "competitiveness" worry, there is a more general worry that capital will be inefficiently allocated toward low-tax locations, where it is more lightly taxed. There is also the attendant problem of domestic corporate tax base erosion, as both economic activity and paper profits are attracted to low-tax locations. Toward the worldwide end of the spectrum, the balance shifts to the other desideratum. The incentives that favor income earned in low-tax

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countries are muted due to possible residual tax burdens in the home country, lessening the degree to which both economic activity and profits are shifted to low-tax locations. However, this puts domestic multinational firms at a relative disadvantage, since they may have a higher tax burden than other firms when operating in low tax countries. In short, the two desiderata are incompatible under conventional tax systems: anything that makes the "competitiveness" problem better makes the capital allocation/ base protection problem worse, and vice versa.

One should take a moment to note that "competitiveness" is an inherently ill-defined concept. Here, the term is being used to capture only a very narrow aspect of competitiveness, the corporate tax facet of the overall ability of a multinational firm to compete in foreign markets. Of course, there are many other variables that affect a firm's ability to compete, including, but not limited to, the exchange rate, the firm's financial constraints, and the unique organization and internalization advantages of particular firms. In addition, the attractiveness of a particular country as a location for production depends on much else aside from their corporate tax environment: their market size, infrastructure, government services, legal institutions, regulation, labor productivity, labor costs, geography, and other factors. Indeed, these other aspects of a country's (or a firm's) competitiveness may be far more important for national welfare than the tax facet of multinational firm competition.

Still, in the debate about ideal tax systems, the more narrow version of competitiveness used in this paper leads some to favor the territorial end of the spectrum, whereas those that emphasize efficient capital allocation or tax base protection prefer the

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worldwide end.[11] Thus, when U.S. business interests lobby for a territorial system of taxation, they are certainly in favor of moving toward the territorial end of the tax policy spectrum, but they are unlikely to suggest a "tough territorial" system that would on net increase the taxation of foreign income. If the United States government adopted some of the suggested reforms that would exempt some foreign dividends from taxation, that might on net *increase* the burden on foreign income.

Indeed, while the merits of such a change are debatable, a territorial system (in name) could easily move the U.S. system toward the *worldwide* end of the spectrum. As Robinson (2014, p.7) notes, "it is possible for a well-designed territorial system to be more burdensome on a U.S. MNC than the poorly designed worldwide system we have now."[12] Such a change is unlikely to satisfy the business community.

Two Examples of the Inevitable Tradeoff

1. Inversions

Observers often argue that the recent spate of corporate inversions strengthens the case for the United States to adopt a territorial system. If the United States moved to exempt foreign dividends from taxation, this would reduce the problem of "trapped" foreign cash, whereby multinationals are reluctant to incur the tax costs of accessing their funds through repatriation, and instead are tempted by corporate inversions that enable easier access to their funds.[13]

[11] These concepts go back to Musgrave's conceptions of capital export neutrality and capital import neutrality. Since then, Desai and Hines (2004) have also emphasized capital ownership neutrality, arguing that international tax treatment would ideally not distort the ownership of production.

[12] Grubert and Mutti (2001), e.g., design a territorial system that would result in an overall higher tax burden on income generated in low-tax countries. See a discussion of this point in JCT (2011), p.86.

[13] This is discussed in Kleinbard (2014) and Clausing (2014).

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However, the incentive for inversions does not disappear under a territorial system. For example, another key motive for inversions is to facilitate income shifting, since restrictions on earnings stripping are not as binding for foreign-owned companies. This motive would still exist under a territorial system. Further, if subpart F is retained under a territorial system, this will also preserve an incentive to invert, as will any base protection efforts that only apply to U.S. multinational firms. As long as there is a positive tax on some foreign income, there will be an incentive to avoid it, and there will be the associated tradeoff between measures that enhance the profitability (or competitiveness) of domestic multinational firms and measures that preserve the corporate tax base.

2. Intellectual Property

One concern with a territorial tax system is that it might increase the incentive for U.S. resident multinationals to develop intellectual property in low-tax countries, allowing intellectual property income to materialize as exempt dividends rather than taxable foreign royalties. This incentive is particularly relevant for U.S. multinational firms that presently use tax credits to shield royalty income from U.S. taxation, since a territorial system would make the tax on such royalties more burdensome. Also, new transfer pricing issues might develop as firms attempt to convert royalty income into forms of income where it would be taxed more favorably. Here again, the tension between "competitiveness" and corporate tax base protection is evident. While domestic intellectual property development can be encouraged through lighter taxation of the resulting income, this also negatively impacts the size of the corporate tax base.

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IV. Are There Tax System Designs that Transcend the Tradeoff?

Are there tax system designs that might avoid the balancing act between these two desiderata? This section of the paper will consider three possibly transcendent policy proposals: (a) worldwide consolidation, (b) a destination basis corporate income tax, and (c) formulary apportionment. While all three of these proposals have merits and potentially transcendent qualities, none of them fully avoid vexing tradeoffs of their own. And all have in common another feature of most grand proposals: they are difficult to adopt swiftly and without controversy. Thus, this section will also discuss smaller steps forward through the BEPS process.

Worldwide Consolidation

Under worldwide consolidation, discussed in Joint Committee on Taxation (JCT) (2011b), and favored by Kleinbard (2011b) and Avi-Yonah (2013), a U.S. multinational firm would be required to consolidate the income earned across the parent firm and its affiliates, and all income would be taxed currently, allowing a credit for foreign taxes. JCT (2011b, p.100-101) summarizes the approach:

> The U.S. group would include on its return the foreign corporation's items of income, gain, deduction and loss, the character of such items would be preserved, and the foreign tax credit would be retained…. under the consolidation approach, losses of foreign subsidiaries would be included on the U.S. return.... the consolidation regime would apply only to U.S. corporate shareholders of foreign subsidiaries.

One pragmatic issue concerns the degree of ownership that would act as a threshold for the required consolidation: options discussed by JCT include 80%, 50%, and 10%.

A worldwide consolidation approach has several benefits relative to the current system: there would be less tax-motivated shifting of economic activity or book income to low-tax locations, since such shifting would be less likely to affect a U.S. multinational

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firm's overall tax burden.[14] There would thus be fewer concerns about inefficient capital allocation or corporate tax base erosion. Also, there would be no "trapped cash" problem since income would be taxed currently.

However, depending in part on the corporate tax rate that would accompany this change, the proposal may still raise competitiveness concerns for those U.S. multinational firms with rising foreign tax burdens under consolidation. Of course, if the U.S. corporate tax rate were lowered substantially alongside this change, as proponents typically suggest, this would reduce the concerns about decreased competitiveness.

Some also worry that this proposal would put stress on the definition of U.S. resident multinationals. Although some (e.g., Shaviro (2011)) have argued that residence is increasingly elective, others argue that relatively simple legislation would make it difficult to change residence for tax purposes. Governments could require that corporate residence indicate the true location of the "mind and management" of the firm; a similar U.K. definition of residence is deemed effective by both Avi-Yonah (2013) and Kleinbard (2011b). It is also feasible to develop further anti-inversion measures along the lines of those suggested by Clausing (2014), Kleinbard (2014), or Shay (2014).

Finally, while there is little real-world experience with such a system, it still falls within international norms, since double taxation is prevented through foreign tax credits. The proposal could be implemented without disadvantaging major trading partners, and it could be adopted unilaterally, though Avi-Yonah (2013) recommends that countries take a multilateral approach.

This proposal has some advantages over simply ending deferral. While

[14] For firms with excess tax credits, there would still be an incentive to avoid earning income in high-tax countries and to earn income in low-tax countries. Excess tax credits are only likely if the average effective foreign income tax rate exceeds the residence country tax rate.

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eliminating deferral (presumably alongside a corporate tax rate reduction) would entail some of the same tradeoffs that are illustrated here (less distortion to repatriation decisions, reduced income shifting, more efficient capital allocation, potential competitiveness concerns, and a greater stress on the definition of residence), it would not truly consolidate the affiliated parts of a multinational firm. Under worldwide consolidation, for example, if losses are earned in foreign countries, they can be used to offset domestic income.

A Destination Basis International Tax System

This proposal is most closely associated with the work of Auerbach (2010) and Auerbach and Devereux (2013). The international provisions of this proposal fall within a revamping of the entire corporate tax system. There would no longer be a tax distortion favoring debt over equity; immediate expensing of investment would be combined with cash-flow tax concepts that would tax all receipts, including the financial receipts due to borrowing, and expense all payments, including debt repayment. In addition, under the proposed system, all international transactions would be completely ignored. This would entail eliminating all taxes on foreign income, as well as all tax credits, and disregarding all cross-border transactions in the calculation of the domestic tax base.

At first, this sees like a stunningly elegant solution to all sorts of problems. Rents are taxed, which is highly desirable for both efficiency and equity reasons, but the tax is based on domestic consumption rather than production. There is no longer a bias toward debt in the tax system, and normal returns to capital are not taxed at the firm level, though they could still be taxed at the individual level. In terms of competitiveness, since international transactions are ignored and foreign income is not part of the tax base, the

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proposal acts like a pure territorial system. In terms of tax base protection, it also seems promising initially. Auerbach notes that some types of income shifting would have no effects on tax liabilities, and the revenue projections are promising.

However, there are some issues that are difficult to address with this system, and these issues would impact both competitiveness concerns and tax base erosion concerns. For example, as noted in Avi-Yonah (2010), there are no mechanisms to address income shifting abroad for both rents and debt-financed investments. For example, firms with a large share of debt-financed investments (such as financial firms or start-ups) would experience a tax increase (from a negative effective tax burden presently); such firms are likely to have a large incentive to incorporate abroad. Also, firms that earn rents, or super-normal profits, often have associated intangible assets (intellectual property, etc.) that are particularly easy to move abroad. Since rents are still taxed under this system, at the regular corporate rate, one would expect multinational firms to respond to such tax changes by moving the rent-producing activities or intangible assets abroad.[15] Under a pure territorial system, presumably with no subpart F, such types of income shifting could be far easier than under current law.

Formulary Apportionment

Under formulary apportionment, worldwide income would be assigned to individual countries based on a formula that reflects their real economic activities. Often, a three-factor formula is suggested (based on sales, assets, and payroll), but others, including Avi-Yonah and Clausing (2008), have suggested a single-factor formula based

[15]The transaction transferring the intangible abroad would be ignored, but when the affiliate abroad sold the resulting product in the United States to an unrelated party, they would earn the resulting income abroad. The only way that tax would be collected on this sale would be through a border-adjustment type mechanism, and that mechanism is likely to run afoul of international trade rules.

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on the destination of sales.[16]

The essential advantage of the formulary approach is that it is provides a concrete way for determining the source of international income that is not sensitive to arbitrary features of corporate behavior such as a firm's declared state of residence, their organizational structure, or their transfer pricing decisions. If a multinational firm changes these variables, it would not affect their tax burden under formulary apportionment.[17]

Importantly, the factors in the formula are real economic activities, not financial determinations. Slemrod and Bakija (2008) and Auerbach and Slemrod (1997) summarize a vast body of research on taxation that suggests a hierarchy of behavioral response: real economic decisions concerning employment or investment are far less responsive to taxation than are financial or accounting decisions. For multinational firms, this same pattern is clearly shown in the data. There is no doubt that disproportionate amounts of income (compared to assets, sales, or employment) are booked in low-tax countries.[18]

In this way, a formulary approach addresses aspects of both the competitiveness and tax base erosion concerns. Firms have no incentive to shift paper profits or to change their tax residence, since their tax liabilities are based on their real activities. However, concerns about efficient capital allocation may remain. Under a three-factor formula, there is still an incentive to locate real economic activity in low-tax countries, which

[16] As an example, if a multinational company earned $1 billion worldwide, and had 30% of their payroll and assets in the United States, but 60% of their sales in the United States, their U.S. tax base would be $400 million under an equal weighted formula (((.3+.3+.6)/3) * $1 billion), and $600 million under a single sales formula ((.6) * $1 billion).

[17] This assumes that the multinational firm has a taxable presence (i.e., nexus) in the locations where it has employment, assets, and sales.

[18] See, e.g., Clausing (2009, 2011).

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raises concerns regarding efficient capital allocation. This is somewhat less of a concern under a sales based formula, since firms will still have an incentive to sell to customers in high-tax countries regardless.[19] Also, prior experience in the United States, which uses formulary apportionment to determine the corporate tax base of U.S. states, has indicated that formula factors (payroll, assets, and sales) are not particularly tax-sensitive.[20]

If all countries were to adopt formulary apportionment, there would be few concerns about competitiveness. Multinational firms would be taxed based on their real economic activities (in terms of production and sales) in each country, so firms would be on an even-footing with other firms (based in different countries) that had similar local operations. If only some countries adopt formulary apportionment, there are ambiguous competitive effects, depending on the circumstances of particular firms.[21] Ideally, formulary apportionment would be adopted on a multilateral basis. However, if some countries adopt, there are mechanisms that would encourage other countries to follow early adopters.[22]

Another related approach is to utilize a formulary profit-split method. The tax base would be calculated as a normal rate of return on expenses, with residual profits allocated by a sales-based formula. With careful implementation, such an approach might

[19] This is particularly the case for final goods. For intermediate goods, this is more problematic.
[20] See Clausing (2014) for an in-depth analysis of this question. Whether this tax-insensitivity would hold at higher corporate tax rates is an empirical question. Still, the forces of tax competition (mobility of production, competitive pricing, etc.) are likely stronger between U.S. states than between foreign countries.
[21] This also generates the potential for double-taxation or double non-taxation, although this is also a problem under the present system.
[22] There is a natural incentive for countries to follow suit, as discussed in Avi-Yonah and Clausing (2008). In particular, once some countries adopt formulary apportionment, remaining separate accounting (SA) countries would lose tax base to formulary apportionment (FA) countries, since income can be shifted away from SA countries to FA countries without affecting tax burdens in FA locations (since they are based on a formula).

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lessen concerns regarding tax competition under a formulary approach. Elsewhere, I provide more detail on the advantages and disadvantages of formulary approaches.[23]

If not Transcendence, B(aby) (st)EPS

Each of the above proposals offers a somewhat different set of tradeoffs from the traditional spectrum between pure territorial and pure worldwide systems. Along that spectrum, anything that improves competitiveness tends to worsen distortions to capital allocation and tax base erosion, and vice versa. In the case of worldwide consolidation, both efficient capital allocation and base protection are addressed compellingly, but competitiveness concerns will likely remain, even if accompanied by a corporate rate reduction, since some firms will see an increase in the tax burden on foreign income. In the case of a destination-basis corporate tax, both efficient capital allocation and competitiveness may be enhanced, but there are some difficulties associated with implementation that may cause corporate tax base erosion due to the mobility of economic rents and debt-financed investments. In the case of formulary apportionment, base protection and competitiveness are addressed, particularly if there is multilateral implementation, but there may be concerns regarding the tax responsiveness of the factors in the formula.

Thus, while the proposals have merits, and are especially compelling in light of the status quo, none of the three proposals completely avoid vexing tradeoffs. Further, the three proposals share a certain loftiness of ambition that makes short-run adoption unlikely. Thus, in practice, we are most likely left with a menu of smaller steps toward corporate tax reform. While U.S. business interests are hopeful of moving further toward

[23] This work includes Avi-Yonah and Clausing (2008), and Avi-Yonah, Clausing, and Durst (2009).

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the pure territorial end of the policy spectrum, the international community is keen to consider measures that might protect the corporate tax base.

For example, in response to pressing concerns about income shifting in OECD countries, evidenced by prominent hearings in the U.S. Congress and the U.K. Parliament, as well as priority in recent G-8 and G-20 meetings, the OECD launched the BEPS project, where BEPS stands for base erosion and profit shifting. The OECD is in the process of making concrete action plan recommendations to help countries address the problems of base erosion and profit shifting; these are being released in phases over 2014 and 2015. Compared with the larger policy proposals just discussed, BEPS works within the current system, taking b(aby) (st)eps toward international tax system reform.[24]

In theory, these policy recommendations could be quite significant. In practice, they are just recommendations, which may be implemented slowly and partially in some cases, or not at all, in other cases. While these may be welcome developments to address corporate tax base erosion, there is also not a consensus about their effectiveness in an environment where tax planners are often several steps ahead of new regulatory solutions. Some observers are more optimistic than others about the efficacy of this process.

If the BEPS proposals were indeed successful, it will help countries protect their corporate tax base while allowing for more transparent tax competition based on corporate tax rates, rather than tax base erosion. Yet this suggests one additional tradeoff regarding tax competition. If multinational firms can avoid taxation without moving real activities like employment and investment, this may *help* high-tax countries avoid some

[24] This is not meant to belittle the salutary nature of the BEPS process. As Lao Tzu put it, "The journey of a thousand miles begins beneath one's feet."

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of the adverse real consequences of tax competition, such as lost jobs and investments, even if it erodes their tax bases. This may be the silver lining of tax avoidance activity.

Therefore, it becomes essential to understand the elasticities in question. If financial tax avoidance channels become more limited, how much will tax competition pressures spill over into real activity? As noted above, a long tradition of public finance literature suggests that financial responses to taxation far exceed real responses, but ultimately the effects of BEPS measures on real activity are an empirical question.

Regardless, here as elsewhere, policy-makers will face a balancing act between those measures that protect the tax base and ensure efficient capital allocation and those measures that are favored by multinational firms interested in lightening the tax burden on their worldwide activities. The tradeoff between the pure territorial and the pure worldwide ends of the policy spectrum will live on.

V. What Next?

There are many ways to improve corporate tax systems, given the deeply flawed nature of the starting point. The BEPS process represents a useful step toward protecting the corporate tax base in an era where multinational firms have become increasingly adept at lowering their global tax burdens through techniques that separate the location of income from the location of economic activity. Still, more fundamental changes to our international tax system show greater promise for substantially improving the status quo. Yet no grand proposals are perfect, and all grand proposals are likely politically difficult in the short- or medium-run.

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In the meantime, policy makers will continue to be vexed by tradeoffs between measures that enhance the competitiveness of resident multinational firms and measures that target efficient capital allocation and tax base protection. Nonetheless, the labels "territorial" and "worldwide" do not tell us anything about how that balance is being struck, until one investigates more closely the details of the tax system in question. At present, these labels create more confusion than clarity.

Finally, a point that is too often lost in this debate is why "competitiveness" is a key desideratum, and what policy measures are likely to be most directly capable of targeting this goal. For example, if resident multinationals need to be competitive in world markets in order to generate high-wage jobs, research and development, and innovation at home, one might usefully compare corporate tax policy with other measures that directly target such goals, such as research funding, infrastructure investments, education policy, and macroeconomic policy in general. While tax economists are prone to think about tax policy foremost, I suspect that other policy levers would be far more direct in targeting the beneficial aspects of "competitive" multinational firms.

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References

Altshuler, Rosanne, and Harry Grubert. 2001. "Where Will They Go If We Go Territorial? Dividend Exemption and the Location Decisions of U.S. Multinational Corporations." *National Tax Journal* 54: 787–809.

———. 2010. "Formula Apportionment: Is It Better Than the Current System and Are There Better Alternatives." *National Tax Journal* 63 (4, part 2): 1145–84.

———. 2013. "Fixing the System: An Analysis of Alternative Proposals for the Reform of International Tax." *Rutgers University Department of Economics Working Paper*.

Altshuler, Rosanne, Stephen Shay, and Eric Toder. 2014. *Lessons the United States Can Learn from Other Countries' Territorial Systems for Taxing Income of Multinational Corporations*. Tax Policy Center Working Paper Draft.

Arnold, Brian J. "A Comparative Perspective on the U.S. Controlled Foreign Corporation Rules." *Tax Law Review* 65: 473–504.

Auerbach, Alan J. 2010. *A Modern Corporate Tax*. Center for American Progress/Hamilton Project Report. Washington DC.

Auerbach, Alan J., and Michael P. Devereux. 2013. *Consumption and Cash-Flow Taxes in an International Setting*. 19579. NBER Working Paper Series No. 19579. Cambridge, MA.

Auerbach, Alan J., and Joel Slemrod. 1997. "The Economic Effects of the Tax Reform Act of 1986." *Journal of Economic Literature* 35 (June): 589–632.

Avi-Yonah, Reuven S. 2010. *Deja Vu All Over Again? Reflections on Auerbach's "Modern Corporate Tax"*. 226. Michigan Law Public Law and Theory Working Paper Series. Ann Arbor, Michigan.

———. 2013. *Hanging Together: A Multilateral Approach to Taxing Multinationals*. U of Michigan Public Law Research Paper No. 364. Ann Arbor, Michigan.

Avi-Yonah, Reuven S., and Kimberly A. Clausing. 2008. "Reforming Corporate Taxation in a Global Economy: A Proposal To Adopt Formulary Apportionment." In *Path to Prosperity: Hamilton Project Ideas on Income Security, Education, and Taxes*, edited by Jason Furman and Jason E. Bordoff, 319–44. Washington: Brookings Institution Press.

Avi-Yonah, Reuven S., Kimberly A. Clausing, and Michael C. Durst. 2009. "Allocating Business Profits for Tax Purposes: A Proposal to Adopt a Formulary Profit Split." *Florida Tax Review* 9: 497–553.

Avi-Yonah, Reuven S., and Yaron Lahav. "The Effective Tax Rates of the Largest U.S. and EU Multinationals." *Tax Law Review* 65: 375–.

Barrios, Salvador, Harry Huizinga, Luc Laeven, and Gaetan Nicodème. 2012. "International Taxation and Multinational Firm Location Decisions." *Journal of Public Economics* 96 (11-12): 946–58.

Bénassy-Quéré, and et al. 2000. *Foreign Direct Investment and the Prospects for Tax Co-ordination in Europe*. CEPII Working Paper No. 2000-06.

Clausing, Kimberly A. 2005. "Tax Holidays (and Other Escapes) in the American Jobs Creation Act." *National Tax Journal* 58: 1–16.

———. 2007. "Corporate Tax Revenues in OECD Countries." *International Tax and Public Finance* 14: 115–33.

Electronic copy available at: https://ssrn.com/abstract=2567952

———. 2008. “Closer Economic Integration and Corporate Tax Systems.” *Global Economy Journal* 8: 1–30.
———. 2009. “Multinational Tax Avoidance and Tax Policy.” *National Tax Journal* 57 (December): 703–25.
———. 2010. “Should Tax Policy Target Multinational Firm Headquarters?”.” *National Tax Journal* 63 (4): 741–63.
———. 2011. “The Revenue Effects of Multinational Firm Income Shifting.” *Tax Notes*, March, 1580–86.
———. 2013. “The Future of the Corporate Tax.” *Tax Law Review* 66 (4): 419–43.
———. 2014a. “Lessons for International Tax Reform from the U.S. State Experience Under Formulary Apportionment”, June.
———. 2014b. *Corporate Inversions*. Washington DC: Tax Policy Center.
Clausing, Kimberly, and Daniel Shaviro. 2011. “A Burden-Neutral Shift from Foreign Tax Creditability to Deductibility?” *Tax Law Review* 64 (4): 431–52.
De Mooij, Ruud A., and Sjef Ederveen. 2003. “Taxation and Foreign Direct Investment: A Synthesis of Empirical Research.” *International Tax and Public Finance* 10 (November): 673–93.
———. 2008. “Corporate Tax Elasticities: A Reader’s Guide to Empirical Findings.” *Oxford Review of Economic Policy* 24: 680–97.
Desai, Mihir A., and James R. Hines, Jr. 2004. “Old Rules and New Realities: Corporate Tax Policy in a Global Setting.” *National Tax Journal* 57 (4): 937–60.
Dyreng, Scott, and Kevin Markle. 2013. *The Effect of Financial Constraints on Tax-Motivated Income Shifting by U.S. Multinationals*. Duke University Working Paper.
Furman, Jason. 2014. “Keynote Speech at Tax Council Policy Institute’s Tax Symposium”. February 20.
General Accounting Office. 2008. *U.S. Multinational Corporations: Effective Tax Rates Are Correlated With Where Income Is Reported*. GAO-08-950.
———. 2013. *Effective Tax Rates Can Differ Significantly from the Statutory Rate*. GAO-13-520.
Gravelle, Jane G. 2012. *Moving to a Territorial Income Tax: Options and Challenges*. Washington DC: Congressional Research Service.
Gravelle, Jane G., and Donald J. Marples. 2011. *Tax Cuts On Repatriation Earnings as Economic Stimulus: An Economic Analysis*. R40178. Congressional Research Service.
Gropp, Reint, and Kristina Kostial. 2000. *The Disappearing Tax Base: Is Foreign Direct Investment Eroding Corporate Income Taxes?* European Central Bank Working Paper Series.
Hajkova, Dana, and et al. 24. *Taxation, Business Environment, and FDI Location in OECD Countries*. OECD Economics Working Papers.
Hartman, David G. 1985. “Tax Policy and Foreign Direct Investment.” *Journal of Public Economics* 26 (1): 107–21.
Hasegawa, Makoto, and Kozo Kiyota. *The Effect of Moving to a Territorial Tax System on Profit Repatriations: Evidence from Japan*. 13-E-047. RIETI Discussion Paper Series. Research Institute of Economy, Trade and Industry.
Hines, Jr. 1996. “Altered States: Taxes and the Location of Foreign Direct Investment in America.” *American Economic Review* 86: 1076–94.

Electronic copy available at: https://ssrn.com/abstract=2567952

Joint Committee on Taxation, House Committee on Ways and Means. 2011a. *Background and Selected Issues Related to the U.S. International Tax System and Systems That Exempt Foreign Business Income*. JCX-33-11.
Joint Committee on Taxation. 2011b. *Present Law and Issues in U.S. Taxation of Cross-Border Income*. JCX-42-11. Washington DC.
Kleinbard, Edward D. 2011a. "Stateless Income." *Florida Tax Review* 11 (9): 699–773.
———. 2011b. "The Lessons of Stateless Income." *Tax Law Review* 65 (1): 99–171.
———. 2014. "Competitiveness Has Nothing to Do With It." *Tax Notes* 144 (September).
Liu, Li. 2014. "The Effects of UK' s Switch to Territoriality on Domestic and Outbound Investment: Evidence from Micro-Level Data," Oxford, Centre for Business Taxation, .
Maffini, Giorgia. 3023. "Territoriality, Worldwide Principle, and Competitiveness of Multinationals: A Firm-Level Analysis of Tax Burdens." *Oxford CBT Working Paper 12/10*.
Markle, Kevin. 2012. "A Comparison of the Tax-motivated Income Shifting of Multinationals in Territorial and Worldwide Countries." http://ssrn.com/abstract=1764031.
Markle, Kevin, and Douglas A. Shackelford. 2012. "Cross-Country Comparisons of Corporate Income Taxes." *National Tax Journal* 65 (3).
Matheson, Thornton, Victoria Perry, and Chandara Veung. 2013. IMF Working Paper. Washington DC: International Monetary Fund.
Robinson, Leslie. 2014. "Testimony of Leslie Robinson Before the United States Senate Committee on Finance". presented at the Hearing on International Corporate Taxation, Washington, DC, July 22.
Shaviro, Daniel. 2011. "The Rising Tax-Electivity of US Corporate Residence." *Tax Law Review* 64 (3): 377–430.
Shay. 2014. "Mr. Secretary, Take the Tax Juice Out of Corporate Expatriations." *Tax Notes*, July.
Slemrod, Joel. 1990. "Tax Effects on Foreign Direct Investment in the United States: Evidence from a Cross-Country Comparison." In *Taxation in the Global Economy*, edited by Assaf Razin and Joel Slemrod, 79–117. Chicago: U of Chicago Press.
Slemrod, Joel, and Jon Bakija. 2008. *Taxing Ourselves*. Cambridge: MIT Press.
Smart, Michael. 2010. *Repatriation Taxes and Foreign Direct Investment: Evidence from Tax Treaties*. University of Toronto.
Voget, Johannes. 2011. "Relocation of Headquarters and International Taxation." *Journal of Public Economics* 95 (9-10): 1067–81.
Wei, Shang-Jin. 2000. "How Taxing Is Corruption on International Investors?" *Review of Economics and Statistics* LXXXII: 1–11.
Wijeweera, Albert, Brian Dollery, and Don Clark. 2007. "Corporate Tax Rates and Foreign Direct Investment in the United States." *Applied Economics* 39: 109–17.

Electronic copy available at: https://ssrn.com/abstract=2567952