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The Tax Calculus of Corporate Locational Decisions

Elizabeth Chorvat

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INTRODUCTION

Seeking to improve the welfare of their citizens, many lesser-developed nations have adjusted their tax rules to attract foreign investment.[1] Assuming a

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1. Joel Slemrod & Reuven Avi-Yonah, *(How) Should Trade Agreements Deal with Income Tax Issues?*, 55 TAX L. REV. 533, 543 (2002). With technical advances and fewer barriers to trade, capital has become more mobile and, in turn, more responsive to differences in the income tax rates. This increased mobility of capital, whether in the form of portfolio capital or the factors of production, has created an opportunity for developing countries to compete for mobile capital by promising higher after-tax returns, which is to say, by lowering tax rates on income from foreign investment. *See* Reuven S. Avi-Yonah, *Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State*, 113 HARV. L. REV. 1573, 1575–76 (2000). *See also* Bishnodat Persaud, *The OECD Harmful Tax Competition Policy: A Major Issue for Small States*, *in* INTERNATIONAL TAX COMPETITION 25, 29 (Rajiv Biswas ed., 2002) (describing the use of favorable tax rules to attract

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concomitant decrease in revenues, governments in the developed world have become concerned about their ability to continue to spend significant amounts to aid the poor within their own borders.[2] The assumption underlying this concern is that mobile capital flows are highly elastic to tax rates and that capital accretions to the developing world come necessarily at the expense of the developed world. Several prominent academics have argued that tax competition must be resisted for this reason, arguing that the very existence of the welfare state is threatened by that erosion of the tax base which necessarily attends tax competition.[3] More specifically, the protection of the territorial tax base from income shifting and what have come to be known as base-erosion payments has become a central issue for governments of almost every developed nation, and it has prompted a call in June of 2012 by the Secretary General of the Organisation of Economic Co-Operation and Development ("OECD") for a global action plan on tax harmonization.[4] Because tax competition has not yet

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foreign investment as one of the few opportunities available to small States).

2.   Since Otto von Bismarck introduced the first national social insurance program in 1889, the developed countries of the world have relied on individual and corporate income taxes as a revenue base for fiscal policies which redistribute wealth solely within the boundaries of their respective countries. *See* Avi-Yonah, *supra* note 1, at 1573, 1575–76, 1632. *See also* Julie Roin, *Competition and Evasion: Another Perspective on International Tax Competition*, 89 GEO. L.J. 545–47 (2001) (arguing that tax competition does not necessarily have negative consequences on the whole). Thus, the phrase "tax competition" need not have a pejorative connotation. However, to those who see tax competition as a threat to existing levels of government expenditure within developed countries, the issue is framed as either "harmful tax competition" or the need for "tax harmonization." *See* Avi-Yonah, *supra* note 1, at 1575–76; *see also* Roin, *supra*, at 545–50. Historically, developed nations encouraged investment in lesser-developed countries because they recognized that it promoted economic development. Lawrence G. Franko, *Foreign Direct Investment in Less Developed Nations: Impact on Home Countries*, 9 J. INT'L BUS. STUD. 55, 55–56 (1978). However, beginning in the 1970s, some countries in the developed world began to take a less positive view of foreign direct investment, as they began to consider that this investment might come at some cost to them. *Id*. at 57–59. Proposals for tax harmonization have been diverse, ranging from voluntary cooperation to global mandate by a "World Tax Organization." Roin, *supra*, at 546, 548–49; Charles E. McClure, Jr., *Globalization, Tax Rules and National Sovereignty*, *in* FOUNDATIONS OF INTERNATIONAL INCOME TAXATION 539–54 (Michael J. Graetz ed., 2003).

3.   *See* Reuven Avi-Yonah & Yoram Margalioth, *Taxation and Development: A Short Review of Some Recent Literature* 19 (Michigan Law School Working Paper, 2006) (describing a two-tiered approach to harmonization based on per-capita GDP); Avi-Yonah, *supra* note 1, at 1575–76 (arguing that unfettered tax competition will likely result in significant reductions in social spending by the developed nations); Larry Summers, Tax Administration in a Global Era (Address to the 34th General Assembly of the Inter-American Center of Tax Administrators, Washington, D.C., July 10, 2000) (stating that "[t]he OECD's work and our unilateral initiatives are first steps in ensuring that our policy objectives can be realized without fear of eroding our tax base"); Hugh Ault, *Tax Competition: What (If Anything) To Do About It?*, *in* FESTSCHRIFT FOR KLAUS VOGEL 1 (Paul Kirchhof et al. eds., 2000) (arguing that tax competition ultimately eliminates taxation on mobile income, making redistribution impossible and causing States to shift to other sources of revenue, especially labor taxation, ultimately reducing social welfare programs to a suboptimal level). *See also* Michael McIntyre, *Defense of OECD Harmful Competition Report*, 81 TAX NOTES 1437, 1437–8 (Dec. 14, 1998). On the general issue of whether source-based capital taxation distorts investment, see Joel Slemrod, *Are Corporate Tax Rates, or Countries, Converging?*, 88 J. PUB. ECON. 1169–86 (2004); Johannes Becker & Clemens Fuest, *Optimal Taxation When Firms are Internationally Mobile* (University of Cologne Working Paper No. 1592, 2005).

4.   Addressing Base Erosion and Profit Shifting, G20 LEADERS DECLARATION (OECD, Los

been significantly restricted, however, we should have observed a contraction in the size of governments in the developed world if this concern were well-founded. In fact, however, we have observed the exact opposite. At the same time that tax competition has prevailed largely unchecked, the size of the public sector in the developed world has, if anything, increased. This paper argues that the view that tax competition necessitates an erosion of the tax base in the developed world fails to take into account the empirical evidence on tax competition and thus fails to articulate the actual effects of tax-motivated corporate locational decisions on the fiscal systems of the developed world.

While the simple application of economic theory may predict that tax competition will result in a winnowing of the availability of public goods due to the erosion of the tax base, empirical observation indicates that this has not occurred. Why? I would argue that, utilizing the standard economic intuitions regarding the selection criteria for public goods and the risk-shifting features of the income tax, it is not surprising that developed nations are able to support large public sectors. Moreover, individuals in these countries will continue to demand significant public sectors and, by only slightly altering the tax instruments used, the effect of tax competition on lowering rates may be essentially vitiated.

One might ask why, if tax competition stimulates economic activity in low-tax and high-tax jurisdictions alike, so many governments in the developed world have gone to such lengths to stifle competition for business investment. I believe that the answer lies in an intertemporal agency problem inherent in the evaluation of tax policy with respect to developing nations by governmental agents in the developed world.

Contrary to the prevailing view in the literature, the market-based allocation of capital and investment will generally prove efficient for development. An important empirical finding by Dharmapala and Hines demonstrates that countries are more likely to become tax havens if they have stable governments which protect property rights.[5] Furthermore, by allowing for greater advantages to those countries which have low rates of taxation, we may be giving an additional incentive for countries to improve their policies with

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Cabos, Mexico), June 19, 2012. This call has resulted in two reports by the OECD to date. The first report, OECD, ADDRESSING BASE EROSION AND PROFIT SHIFTING (Feb. 12, 2013) [hereinafter BASE EROSION REPORT], sets forth the OECD's perspective on the issues that arise due to the ability of multinational enterprises to shift activities and thus taxable income to lower-taxed jurisdictions. With the second report, OECD, ACTION PLAN ON BASE EROSION AND PROFIT SHIFTING (July 19, 2013) [hereinafter BASE EROSION ACTION PLAN], the OECD established the Base Erosion and Profit Shifting project or BEPS in order to work with the G20 and the United Nations to foster initiatives consistent with the OECD's action plan. The action plan sets forth a timeline for the various actions the group will attempt to undertake.

    5.   An important recent study of all tax havens by Dharmapala and Hines adopts the Hines & Rice definition. Dhammika Dharmapala & James R. Hines, Jr., *Which Countries Become Tax Havens?* (NBER Working Paper No. 12802, 2006) (investigating the relationship between quality of government and likelihood of becoming a tax haven, and concluding that there is a positive and significant correlation between quality of government and likelihood of becoming a tax haven).

regards to foreign investment.[6]   While those developing countries that have become tax havens are poor, they are less likely to remain as desperately poor as similarly situated countries that lack the appropriate governmental motivation.[7] As a consequence, allowing for a tax competition should further a more efficient pattern of development than one based on transfer of capital from governments.

Part I of this paper addresses the chief arguments in favor of restricting tax competition and, in particular, the activities of so-called tax havens. Part II discusses how the empirical evidence does not support the prevailing notion that tax competition will necessarily lead to a "race to the bottom" in the taxation of mobile factors. Part III offers an economic analysis of why tax competition may not actually lead to significant reductions in the level of public goods provided by government. Furthermore, although tax competition will impact the tax systems of the developed world to some extent, such effects may lead to beneficial results in that governments will be encouraged to adopt more efficient forms of taxation than political considerations would have allowed rather than reduce the size of services provided.[8] Parts II and III incorporate theoretical approaches—including the Tiebout selection model, the Domar-Musgrave model, and theoretical work by Agnar Sandmo—with important empirical work by Hines & Dharmapala, and Dani Rodrik not currently reflected in the legal academic literature. Finally, the paper discusses the intertemporal agency problem inherent in the evaluation of tax policy with respect to developing nations by governmental agents, which may serve to explain why governments in the developed world have resisted tax competition.

I.
TAX COMPETITION AND THE INTERNATIONAL COMMUNITY

A. The Nature of Tax Competition

Nations engage in tax competition when they compete in the form of lower tax rates or other tax-beneficial provisions to attract business investment to their jurisdictions.[9] Such business investment, in turn, results in externalities— spillovers to the community in the form of additional jobs (which in turn lead to higher tax revenues),[10] additional demand for the services of local suppliers of

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6.   There are a number of possible definitions of tax haven. James R. Hines Jr. & Eric Rice, *Fiscal Paradise: Foreign Tax Havens and American Business,* 109 Q. J. ECON. 149 (1994).

7.   Dharmapala & Hines, *supra* note 5, at 22–24; James R. Hines Jr., *Do Tax Havens Flourish?, in* 19 TAX POLICY AND THE ECONOMY 65 (James M. Poterba, ed., 2005).

8.   *See* EUGENE STEURLE, THE TAX DECADE (1991) (discussing how the results of the political process are often governed by considerations other than efficiency).

9.   *See* Roin, *supra* note 2, at 546.

10.   *See* Thomas F. Field, *Tax Competition in Europe and America*, 29 TAX NOTES INT'L 1235, 1235–37 (2003). *See also* Joze P. Damijan et al., *The Role of FDI, R&D Accumulation and Trade in Transferring Technology to Transition Countries*, 27 ECON. SYS. 189 (2003) (stating that "[f]oreign direct investment provides probably the most important and cheapest channel of direct technology transfer to developing countries").

the factors of production (for example, local construction companies, delivery services, raw material producers)[11] and, if the increase is large and sustained, a change in the business culture which encourages additional investments in human capital and local entrepreneurship.[12] One study by James Hines indicates that tax havens are better off and experience increased economic growth as compared with similarly situated countries which are not like-minded in establishing favorable rate structures to promote business investment.[13]

It is well established in the economics literature that the competition for these positive externalities can and should yield the efficient allocation of business capital, because countries that derive the most benefit from business investment will offer the lowest income tax rates and therefore attract the most capital.[14] That is, to the extent that capital will create larger externalities in a jurisdiction, that jurisdiction will be more willing to give the investment tax breaks, and so investors will choose to invest where total social output is higher, rather than only considering their own private returns. Especially for those lesser-developed countries which have few if any resources to attract business capital, but which have governments with high degrees of integrity, tax competition offers what may be their only opportunity to develop an economic base and create the type of infrastructure that most Western nations take for granted.[15]

This is tax competition in the best sense, promoting economic development where it is most needed and providing for the efficient allocation of business capital. Notwithstanding the benefits to economic development and increases in the efficient allocation of capital, however, it is also the case that, depending on local-country factors such as market structure, multinational corporations might in fact exploit favorable tax regimes to derive all the benefits of the externalities

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11.   *See* Field, *supra* note 10, at 1235–37.

12.   *See id.*

13.   Hines, *supra* note 7. Indeed, this study found that between 1982 and 1999 "tax havens" had an average annual growth rate of 3.3% as compared to the world average of 1.4%. The study did find that, given the population characteristics, these countries tended to have smaller public sectors than one would expect; however, given that the average ratio of government expenditures to GDP in these countries was found to be approximately 25%, they are not massively below modern levels of government expenditure in the developed world. Hines defines the term "tax haven" to mean those countries identified in WALTER DIAMOND & DOROTHY DIAMOND, TAX HAVENS OF THE WORLD (2002) or in James Hines & Eric Rice, *Fiscal Paradise: Foreign Tax Havens and American Business*, 109 Q. J. ECON. 149 (1994). These countries generally have either a very low rate of income tax or none at all.

14.   One can derive these results from the well-known model developed by Charles Tiebout, which addressed the issue of how jurisdictions would compete if they provided benefits in the form of public goods in exchange for tax revenues. Charles M. Tiebout, *A Pure Theory of Local Expenditures*, 64 J. POL. ECON. 416, 419–24 (1956). Tiebout demonstrated that, in such a world, the efficient allocation outcome would result from allowing unfettered competition between jurisdictions. *Id.*

15.   Dharmapala & Hines, *supra* note 5, at 22–24 (demonstrating that the most important factor in determining whether a country will become a tax haven is the level of integrity of the government).

they create, leaving relatively little for the local jurisdiction.[16] In addition to extracting benefits that might otherwise accrue to the local jurisdiction, multinational corporations might attempt to derive income from a high-tax jurisdiction that has decided to invest heavily in public goods, and structure its operations so as to claim the income as having arisen taxed in the low-tax jurisdiction, thus avoiding paying for those public goods they actually use.[17] Prominent academics have argued persuasively that this could result in the underfunding of public goods and should be avoided.[18] Virtually all high-tax jurisdictions, however, have transfer-pricing regimes in place which, properly enforced, should preclude mischaracterization of the source of business income.[19]

B. *The Case for Tax Harmonization*

As the world has become more integrated, the ability of nations that are so inclined to attract business away from others by means of favorable tax regimes has increased.[20] A number of academics, including Hugh Ault, Reuven Avi-Yonah, Lawrence Summers, and Michael McIntyre, have argued that tax competition will effectively create a race to the bottom, where tax rates on income derived from capital will drop to levels inconsistent with the ability of governments of the developed world to maintain a modern welfare state.[21] The notion is that this will occur in part because the marginal cost of government for a single additional business or investment is negligible. We can analogize taxes to the price charged by government for its services, which is to say, for public goods. These public goods are valued both by businesses and individuals. For example, an efficient transportation system, public education, law enforcement, and effective protection of property rights all have significant value to

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16.   *See* Damijan et al., *supra* note 10, at 190–203 (testing for productivity spillovers in developing countries and finding that significant positive spillovers to domestic firms from foreign direct investment occurred in Slovenia, Poland, and Romania). The authors theorized that a higher rate of positive spillover resulted when local-country firms had the ability to absorb and exploit knowledge transfers where some level of research and development had already occurred in local firms. *Id.* at 198, 203.

17.   OECD, HARMFUL TAX COMPETITION 28–29 (1998) [hereinafter 1998 OECD REPORT] (discussing the need for "transparency").

18.   *See, e.g.*, Ault, *supra* note 3, at 2; Avi-Yonah, *supra* note 1, at 1575–80, 1632–39.

19.   While some reforms to the current transfer pricing system may be optimal, the basic idea of arms' length transfer is generally accepted as the appropriate method to allocate income among jurisdictions. *See, e.g.*, Elizabeth Chorvat, *Forcing Multinationals to Play Fair: Proposals for a Rigorous Transfer Pricing Theory*, 54 ALA. L. REV. 1251 (2003).

20.   *See, e.g.*, Avi-Yonah, *supra* note 1, at 1579.

21.   *See* Ault, *supra* note 3; Avi-Yonah, *supra* note 1; Summers, *supra* note 3; BRIAN J. ARNOLD & MICHAEL J, MCINTYRE, INTERNATIONAL TAX PRIMER 137–42 (2d ed. 2002). Not all academics share this opinion, *see* Karen B. Brown, *Missing Africa: Should U.S. International Tax Rules Accommodate Investment in Developing Countries?*, 23 U. PA. J. INT'L ECON. L. 45, 57 (2002) (characterizing the OECD as "[a] group of industrialized nations [advocating] elimination of tax regimes which are viewed as unfairly competing for investment dollars of multinational enterprises").

businesses, and they will be willing to pay for these benefits. However, if under perfect competition between governments for investment capital the price charged by a country for public goods were to equal the marginal cost of government, the tax rates on income derived from mobile capital would essentially drop to zero.[22]

From the perspective of the European Union and other high-tax jurisdictions, the real problem posed by tax competition is that it may operate as a market mechanism to limit the level and the kinds of taxes that a government can impose.[23] Limitations on revenue, in turn, limit government spending. More specifically, commentators sympathetic to tax harmonization have argued that tax competition will limit the ability of governments in developed nations to adopt policies aimed at improving the welfare of their poor.[24] These expenditures now constitute the lion's share of government expenditures at the national level of most developed countries.[25]

To some extent, international tax competition issues arise whenever there is income earned from activities conducted in more than one jurisdiction and the tax rates imposed by the jurisdictions differ.[26] To the extent that tax competition is viewed as a problem, it is a growing one, because international trade continues to expand at a rapid pace.[27] As worldwide trade expands, the ability of countries to compete with favorable tax regimes will continue to enlarge.[28] It is clear that the members of international organizations such as the OECD perceive a sufficient threat to their tax base that they have undertaken to prevent countries both within and without their sphere of authority from using tax competition in what they view as overly aggressive.[29] We might do well, however, to examine the results of empirical studies relating to the assumption that mobile capital flows are highly elastic to tax rates and that capital flows to the developing world will necessarily lead to a race to the bottom.

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22.   Peter Birch Sorensen, *Can Capital Income Taxes Survive? And Should They?* (CESifo Working Paper No. 1793, 2006).

23.   Arthur Wright, *OECD Harmful Tax Competition Report Falls Short*, 81 TAX NOTES 133 (Oct. 5, 1998). *See* McIntyre, *supra* note 3, at 1438 (critiquing Wright's characterization of the supporters of harmonization as a cartel). *See also* Jan Francke, *The 1998 OECD Report on Harmful Competition: Just Right*, 17 TAX NOTES INT'L 979–81 (Sept. 28, 1998) (defending the position of the OECD).

24.   *See* Avi-Yonah, *supra* note 1, at 1632–39.

25.   At least in the United States, income taxes make up a much smaller percentage of subnational (that is, state and local) government revenue.

26.   *See* MICHAEL J. GRAETZ, FOUNDATIONS OF INTERNATIONAL INCOME TAXATION 487–89 (2003).

27.   *See, e.g.,* Avi-Yonah, *supra* note 1, at 1578, 1596–97.

28.   1998 OECD REPORT, *supra* note 17, at 14, 18.

29.   *Id.* at 16, 37–52.

II.
THE EMPIRICAL PUZZLE OF TAX COMPETITION

A number of empirical studies undercut the factual premises on which the argument against tax competition is based. According to harmonization advocates, the risk that a country will face problems funding its public goods increases with exposure to competition from other governments.[30] That is, drawing the analogy to the industrial organizations literature, the more competition a government faces, the closer its prices will have to be to marginal cost, which we have seen would essentially be equal to zero for capital income.[31] Moreover, tax competition theory would suggest that the countries most hurt by the existence of tax havens would be the countries most similar to the havens in their essential characteristics. This is to say that, to the extent that countries with similar characteristics are found near each other, those countries in the vicinity of the haven would have the most to lose. As intuitively appealing as these arguments may be, none of them are supported by the empirical literature. Most importantly, the empirical evidence does not suggest that the supply of public goods will significantly drop as result of tax competition.

It does not appear that tax competition significantly alters locational decisions, at least not to the point of significantly altering the supply of public goods. This is the conclusion of the most prominent empirical study on the effects of tax competition between the cantons in Switzerland.[32] The study by Kirchgassner and Pommerehne found that tax competition has some influence on how individuals with high income locate among the cantons, and that this difference was partly capitalized into housing prices and apartment rents.[33] According to the study, however, tax competition neither leads to a collapse of public good supply nor does it make redistribution impossible. Switzerland is uniquely situated for such a study because, owing to the small size of the country and its subfederal units, private and corporate taxpayers can easily move to lower their tax burden, tax competition is possible, and any negative consequences are readily apparent. There are three levels of government specified in the Swiss constitution: federal, cantonal, and that at the local

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30.   *See, e.g.,* Avi-Yonah, *supra* note 1, at 1613–14.

31.   Because the marginal cost of providing public service is essentially equal to zero, if the government were to structure tax rates based on marginal cost, the rate would likewise become essentially zero where government is forced to compete for capital income. *See* text accompanying note 22, *supra*.

32.   Gebhard Kirchgassner & Werner W. Pommerehne, *Tax Harmonization and Tax Competition in the European Union: Lessons from Switzerland*, 60 J. PUB. ECON. 351 (1996).

33.   Empirical studies show that income and property taxes do have some effect on where some individuals, especially high-income individuals, reside. *Id*. at 359. These results are in line with other studies for Switzerland which show that residency decisions between central cities and their suburban areas are influenced by tax rates, especially for high-income individuals. Werner W. Pommerehne & Suzanne Krebs, *Fiscal Interactions of Central City and Suburbs: The Case of Zurich*, 28 URB. STUD. 738–801 (1991).

community level.[34] The main progressive taxes on personal and corporate income are cantonal and local taxes, whose rates differ from canton to canton and, within cantons, from municipality to municipality. The central government relies mainly on indirect (proportional) taxes, the general sales tax, and specific consumption taxes like the mineral oil tax.[35] Owing to the small size of the country and its subfederal units, private and corporate taxpayers can easily move from place to place to decrease their tax burden. Tax competition clearly exists and any negative consequences should become readily apparent—all the more so because it is occurring in a country as small as Switzerland, with a very homogeneous, business-minded populace.[36]

One would expect that, if tax competition exerted a significant influence on locational decisions, public expenditures as a share of GDP should decline. In fact, Switzerland has had a total increase in the share of public spending during the last forty years commensurate with the increase in the size of other European governments.[37] Thus, tax competition did not appear to lead to any significant reduction in public goods in Switzerland.

Perhaps the most interesting result of the study was that tax competition did not seem to have any significant effect on the redistribution of income within cantons.[38] They found that the amount of redistribution is approximately the same in Switzerland as in the United States, is somewhat higher than in Canada, and is a little lower than in Germany.[39]

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34. Pommerehne & Krebs, *supra* note 33, 738–801.

35. Indirect taxes are taxes that are assessed based on features that do not vary between individuals. A paradigmatic example of an indirect tax would be a sales tax.

36. Kirchgassner & Pommerehne note that it is well known that there are two tax havens in or near Switzerland: the small country of Liechtenstein, which forms an economic union with Switzerland and, more important for our investigation, the canton of Zug. Kirchgassner & Pommerehne, *supra* note 32, at 353. While these are the two most prominent tax havens, income taxes in Switzerland actually differ significantly between cantons. *Id.* Normalizing to 100 for the weighted average for income taxes in Switzerland, the authors describe the variance of the burden from personal income and property taxes in 1990 as from 54.8 in the canton Zug to 150.5 in the Valais. *Id.* That is to say, a family with two children earning a taxable income of SFr200,000 had to pay SFrl8,223 in state and local income taxes in Zug, but SFr41,944 in Solothurn, two cities less than 100 km apart. *Id.*

37. As was demonstrated by the authors, total government expenditure in relation to GNP rose between 1950 and 1985 from 19.6% to 25.9%. Kirchgassner & Pommerehne, *supra* note 32, at 360 (citing Kirchgassner & Pommerehne, *Zwischen Parteien und Bundesstaat: Staatshandeln in der Schweiz und in der Bundesrepublik Deutschland*, in STAATSTFITIGKEIT IN DER SCHWEIZ 234 (H. Abromeit & W.W. Pommerehne, eds., 1992). Of course, this is clearly below the corresponding figures for Germany, which rose during the same time from 24% to 31.2%. While it is true that Switzerland has the lowest government share (measured as total outlay of government as a percentage of GDP) of all OECD countries, it exhibited the same development of government growth during the last few decades, so there is little reason to believe that tax competition significantly limited the growth of the public sector in Switzerland. In fact, they note that compared with Germany, the share of public consumption from GDP was higher in Switzerland during the 1980s, and the share of public investment was higher in Switzerland than in Germany even since the 1970s.

38. Kirchgassner & Pommerehne, *supra* note 32, at 363–65.

39. *See, e.g.*, Hans-Werner Sinn, *Tax Harmonization and Tax Competition in Europe*, 34

For further evidence that the theoretical case against tax competition is incorrect, a recent econometric study by Dani Rodrik of Harvard has demonstrated that there is a positive and robust correlation between exposure to international trade and more extensive social insurance programs.[40] Rodrik argues that the positive correlation between exposure to competition and big government exists because voters demand government insurance against the risks associated with an open economy.[41] There is a growing body of literature suggesting that the risk-sharing function of government stimulates investment in those assets that are subject to differential taxation.[42] That is, taxation can itself provide some benefit to taxpayers. This would explain why we do not necessarily observe flight from a high-tax state.[43] It would thus be reasonable to infer that developed nations that provide public goods efficiently should be able to retain their welfare state at current levels.

Two recent studies suggest that, rather than drawing capital away from surrounding countries, tax havens actually improve the welfare of surrounding high-tax countries. Desai, Foley, and Hines demonstrate that the empirical evidence, "properly interpreted," suggests that activity in tax havens *increases* economic activity in nearby nonhavens, which therefore may have an overall stimulative effect.[44] This is a very interesting result because the standard story would suggest that surrounding countries would be most likely to suffer as a result of tax competition if they were similar to the haven in their essential characteristics and closely competing with the tax haven.[45]

Using weighted GDP growth rates as an instrumental variable for economic activity outside the havens, Desai, Foley and Hines presented evidence that increased nonhaven activity correlated positively with demand for havens, suggesting that the use of haven operations stimulates economic activity in nonhaven operations.[46] Modeling the profit-maximizing behavior of firms investing in havens and nonhavens simultaneously, the authors found that tax haven investment operates to stimulate economic activity in nonhavens because

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EUR. ECON. REV. 489–504 (1990). *See also* Kirchgassner & Pommerehne, *supra* note 32, at 366.

40.   Dani Rodrik, *Why do More Open Economies Have Bigger Governments*, 106 J. POL. ECON. 997, 997–99 (1998).

41.   Rodrik discusses a study by David Cameron which finds an extremely high correlation (specifically, a correlation coefficient of .78) between tax revenue and the openness of an OECD country (as measured by imports plus exports divided by GDP). *Id*. at 999 (citing David R. Cameron, *The Expansion of the Public Economy: A Comparative Analysis*, 72 AM. POL. SCI. REV. 1243 (1978)).

42.   For explanations of how imposing higher taxes might lead to greater investment in the taxed item on account of this risk-sharing, see Agnar Sandmo, *Differential Taxation and the Encouragement in Risk-Taking*, 31 ECON. LETTERS 55–9 (1989).

43.   Rodrik, *supra* note 40, at 998.

44.   Desai et al., *Do Tax Havens Divert Economic Activity?*, 90 ECON. LETTERS 219 (2006).

45.   *Id*. at 220. *See also* James R. Hines, Jr., *Treasure Islands*, 24 J. ECON. PERSP. 103, 104, 107–08 (2010) (describing similar concerns and empirical findings regarding the effect of competition from tax havens on capital investment in neighboring countries).

46.   Desai et al., *supra* note 44, at 220–21.

the favorable tax position afforded by the haven investment reduces the marginal product of capital required for nonhaven investment.[47] Rephrasing in the vernacular, tax haven operations are essentially used to "shelter" income earned in neighboring high-tax jurisdictions and reduce the cost of deferral. In turn, the lower cost of nonhaven operations stimulates demand for havens.[48]

Further empirical evidence relating the size of the public sector and the openness of the economy supports the notion that the more open the economy, the larger the public sector.[49] Duane Swank argues that, contrary to the standard tax competition argument, openness to trade and capital movement does not result in what Swank calls "the lowest common denominator."[50] Swank performed a pooled time-series study over the period between 1966 and 1993, relating capital flows, financial liberalization, and business taxes, and found openness to be *positively* correlated with business taxes.[51] The effect of globalization and increased competition, if anything, appears to be to alter the structure of taxes to those with broader bases and lower marginal rates, which is to say, more efficient tax systems. This evidence runs precisely contrary to the theory that tax competition will lure capital to exclusively low-tax jurisdictions. The total burden of—or conversely the total revenue raised by—business taxes does not seem to be greatly affected by increased openness. If the tax competition indeed destroyed the ability of nations to have taxes on corporate income, as advanced by its opponents, we should find that it is the most open countries that are the most vulnerable to capital flight. Instead, the most open countries are more likely to *attract* capital.[52] Moreover, it appears to comport

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47.   *Id*. Optimizing the profit-maximization function of a firm investing simultaneously in the haven and non-havens, the first order condition for investment in both results in:

$$\frac{\partial Q(K_1^*, K_2^*)}{\partial K_1} = \frac{(1-\tau_1)}{(1-\tau_2)} \cdot \frac{\partial Q((K_1^*, 0)}{\partial K_1}$$

where K_1 is the level of invested capital in non-havens, K_2 is the corresponding investment in non-havens, and λ is the opportunity cost of capital. Note that the multiplier is less than one, such that the firm is willing to invest more because of the declining marginal product of capital (or, in other words, the "hurdle rate" required for investment in the non-havens).

48.   *Id*. at 222. *See also* Mihir A. Desai, C. Fritz Foley & James R. Hines Jr., *The Demand for Tax Haven Operations*, 90 J. Pub. Econ. 513, 526–29 (2006).

49.   Duane Swank, *Funding the Welfare State: Globalization and the Taxation of Business in Advanced Market Economies*, 46 Pol. Stud. 671, 691 (1998) (concluding that "[t]here appears to be no dramatic, irresistible pressure to radically retrench social spending and eliminate public goods provision").

50.   *Id*. at 675.

51.   *Id*. at 681–84.

52.   *Id*. If the theory used to argue against tax competition were correct, we should observe that the most open economies are the most vulnerable to capital flight. Swank finds precisely the opposite. Therefore, the empirical evidence indicates that the empirical evidence used to argue against tax competition is incorrect.

with the notion that the ultimate effect of globalization and the emergence of tax haven operations may be more efficient forms of income taxation.

Finally and perhaps most importantly, a recent paper by Hines presents strong evidence that tax competition is not at odds with large social welfare systems and may, in the long run, encourage the growth of such systems.[53] Regressing on the level of social welfare spending and per-capita GDP, Hines finds a strong correlation between high national income and greater demand for social welfare programs.[54] Furthermore, Hines reports that systems that have large social welfare programs do not generally receive a high percentage of their revenue from internationally mobile sources of income, such as corporate income taxes. Indeed, he determines that the ratio of corporate income taxes to GDP is negatively correlated with social welfare spending, although this finding is not statistically significant. These results imply not only that governments have been able to adapt to tax competition, but also that the efficiency gains associated with such competition are likely to result in an increase in the size of social welfare systems rather than the reverse. Hines concludes that, while one can never know the future or what chain of events tax competition might set into motion, based on this evidence, tax competition may be associated with increased—rather than decreased—social welfare spending.[55] According to the June 2012 OECD report, this may well have been the case.[56]

Taken together, it appears that the empirical evidence severely undercuts the notion that tax competition, which up to the present has largely been unregulated, will necessarily result in a race to the bottom. Rather, the evidence indicates that such competition should support economic development in the havens and, in turn, stimulate the economies of nonhavens.

However, this empirical work presents a puzzle. Why is it that tax competition does not in fact cause a race to the bottom? As discussed in Part I, under standard economic theory, perfect tax competition should result in the rate of taxation on mobile factors of production like capital being essentially zero at equilibrium. This paper will argue that, taking into account standard economic theory relating to the selection criteria for public goods and the risk-shifting features of the income tax, it is not surprising that there has not been a race to the bottom. This analysis also suggests that it is unlikely that such a race will occur. It does suggest, however, that tax competition may force countries to adopt more efficient types of tax systems than they may otherwise have adopted.

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53. James R. Hines Jr., *Will Social Welfare Expenditures Survive Tax Competition?*, 22 OXFORD REV. ECON. POL'Y 330 (2006).

54. *Id*. at 345–46.

55. *Id*. at 346–47.

56. G20 LEADERS DECLARATION, *supra* note 4, at 16 (noting that, at least with respect to the share of corporate taxes as a percentage of GDP, the proportion increased during the years 2009, 2010, and 2011). Furthermore, OECD data demonstrates that corporate tax revenues in OECD countries as a percentage of GDP has generally been increasing since the 1960s. BASE EROSION REPORT, *supra* note 4, at 15–16. *See also* text accompanying *infra* note 93.

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III.

WHY A RACE TO THE BOTTOM HAS NOT AND WILL NOT OCCUR

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The empirical evidence presents us with a puzzle. A simple application of economic theory indicates that tax competition should result in a winnowing of the availability of public goods, yet we have not observed this occurring. This section argues that, utilizing the standard economic intuitions regarding the selection criteria for public goods and the risk-shifting features of the income tax, it is not surprising that developed nations are able to support large public sectors. In particular, we can predict that individuals in developed nations will continue to demand significant public sectors and, by only slightly altering the tax instruments used, the effect of tax competition on lowering rates may be essentially vitiated.

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A. Tiebout Selection

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Under the standard model of the local provision of public goods, first presented by Charles Tiebout, individuals will choose to locate where the tax policies and the local provision of public goods most closely match their tastes.[57] Under this model, localities effectively compete for individuals who vote with their feet so that jurisdictions that do not supply a level of public goods demanded by a large number of people will not attract immigrants and will lose out in this competition.

There are many other economic models in which the Tiebout selection model has been extended to describe the competition by government for business as well as individuals, as jurisdictions compete for mobile corporate income in order both to increase levels of wage income in the jurisdiction and to enlarge the local tax base.[58] These models produce a series of "invisible-hand theorems" in which interjurisdictional competition leads to Pareto-efficient outcomes.[59] In one sense, this should not be too surprising. So long as local residents care about the provision of public goods as well as their levels of private consumption, governments will seek to provide public goods as well as a reasonable level of taxation. In addition, local jurisdictions will wish to extend invitations to new business for which the benefits exceed the costs, both by low taxes as well as the provision of public goods such as roads and an efficient legal system. As Stigler framed the issue, "[c]ompetition among communities offers not obstacles but opportunities to various communities to choose the type and scale of government functions they wish."[60]

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57.   Tiebout, *supra* note 14.

58.   Wallace E. Oates, *Fiscal Competition and the European Union: Contrasting Perspectives*, 31 REG'L SCI. AND URB. ECON. 133, 135 (2001).

59.   In these models, tax competition allows those with different preferences to sort themselves by location, thereby increasing general welfare. *Id.*

60.   George J. Stigler, *The Tenable Range of Functions of Local Government*, *in* JOINT ECONOMIC COMMITTEE, FEDERAL EXPENDITURE POLICY FOR ECONOMIC GROWTH AND STABILITY

These models would then place a second limit on the level of public goods, but this would be a floor rather than the ceiling, which would seem to be imposed by tax competition. That is, if citizens of developed countries demand a certain level of public goods, their governments will have to provide it, and a business that wishes to operate in these jurisdictions will have to subject itself to the taxes imposed by these jurisdictions.

The Tiebout selection model and the standard arguments against "harmful" tax competition are in conflict. Tiebout selection would argue that those businesses with operations that have significant needs for public goods will locate in those jurisdictions with higher levels of public goods and those that do not will locate in jurisdictions with low tax rates. To the extent that the Tiebout model is descriptive, it will not be the case that all businesses will flee to low-tax jurisdictions, but rather there will be a sorting among these businesses, with some choosing to locate in low-tax jurisdictions and others locating in high-tax jurisdictions. For example, businesses that rely heavily on roads and good schools will likely locate in jurisdictions that have higher taxes while business that have easily transportable products that do not require a highly educated workforce may locate in jurisdictions where the supply of these public goods is lower. Similarly, businesses that rely on heavy enforcement of patent rules will select jurisdictions with well-developed patent and property regimes.

Those arguing against tax competition allege that tax competition from developing nations will "induce potential distortions in the patterns of trade and investment and reduce global welfare."[61] However, one can make the argument for allocating greater capital to lesser-developed regions based on fundamental notions from microeconomics. In particular, the concept of declining marginal returns to capital argues in favor of reallocating capital to jurisdictions offering the lowest cost for that bundle of public goods which is provided in accordance with the taxpayer's preferences.[62] The notion here is that, as capital is added to an activity, the additional increase in productivity for each marginal increment of capital is less.[63] This argument is similar to the argument about the redistribution of wealth in connection with declining marginal utility of wealth. Here, though, it does not rely on such abstract notions of utility, but rather on an empirically verifiable hypothesis related to the declining marginal productivity of capital.[64]

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216 (1957).

61.   1998 OECD REPORT, *supra* note 17, at 14.

62.   RICHARD A. MUSGRAVE & PEGGY B. MUSGRAVE, PUBLIC FINANCE IN THEORY AND PRACTICE 570, 608–09 (5th ed. 1989).

63.   DAVID FRIEDMAN, PRICE THEORY 122–23 (2d ed. 1990).

64.   MUSGRAVE & MUSGRAVE, *supra* note 62, at 608–09. For a discussion of the empirical evidence for the declining marginal productivity of capital, the key article in this line of the literature is Gregory Mankiw, David Romer & David Weil, *A Contribution to the Empirics of Economic Growth*, 58 Q. J. ECON. 407 (1992).

It is generally believed that economic competition allows for the optimal allocation of capital.[65] Just as competition in the market allocates capital to the most efficient producers, tax competition will help to allocate capital to countries in which the capital will create the greatest number of positive externalities.[66] In contrast to the harmonization story, however, this will include nations with the domestic policies, resources, and incentives that accrue to business investment and offset the disincentive of higher tax rates.[67] As Tiebout described, it is for the government to ascertain the market for public goods and tax accordingly.

Recent research by Dharmapala and Hines adds further evidence in support of the Tiebout model as applied to tax competition.[68] Their research indicates that the chief determinants of whether a country will become a tax haven are (i) the size of the country, (ii) whether it scores high on their measure of government integrity, and (iii) its distance from a major financial center.[69] From the Dharmapala and Hines results, we can infer that the prediction from the Tiebout model, that countries which elect to become tax havens are those most likely to profit from significant amounts of capital investment—which is to say, because they value the investment the most—holds true empirically. Why might this be the case? First, the smaller the country, the greater the impact a given amount of capital inflow will have on the well-being of its citizens. Second, the greater the integrity of the government, the more investors will be willing to trust the government not to expropriate profits earned in that country, and therefore the greater the willingness of the investors to allocate capital to the business activity in that country. Finally, the further the distance from a financial center, the less likely capital would be to come to the jurisdiction without a special incentive. Therefore, just as the Tiebout selection model would predict, the jurisdiction that can profit the most from capital inflows will offer the lowest tax rates on income from capital.

According to the public finance literature, competition for business investment in the form of public goods and taxation can and should yield the efficient (worldwide) allocation of business capital as governments adapt to business preferences for the public goods/tax mix. The Tiebout model describes the cost-benefit analysis performed by individuals seeking the optimal mix of taxes and public goods. The implication is that, even with tax competition

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65.   *See* RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 9 (6th ed. 2003) (describing as a fundamental principle of economics "that resources tend to gravitate toward their most valuable uses if voluntary exchange—a market—is permitted"). *See also* STEPHEN E. RHOADS, THE ECONOMIST'S VIEW OF THE WORLD: GOVERNMENT, MARKETS AND PUBLIC POLICY 64 (1985) (discussing how free markets operate to promote efficient outcomes).

66.   Tiebout, *supra* note 14, at 423–24 (demonstrating how allowing for competition amongst different jurisdictions will promote the efficient provision of public goods).

67.   Swank, *supra* note 49, at 676.

68.   Dharmapala & Hines, *supra* note 5.

69.   *Id*. at 36 (describing the results of their regression run using status as a tax haven as the dependent variable).

among jurisdictions, rates will not necessarily decline to zero and firms will locate where they find the optimal mix of tax cost and public goods provided. The "rational consumer," which Tiebout describes as voting with his feet, is an appealing metaphor for the haven/nonhaven business investor as described by Desai, Foley, and Hines who utilizes preferential haven rates to reduce the required marginal product of capital in nonhavens. The challenge to determine and satisfy revealed preferences and tax accordingly seems not at all insurmountable in the global business environment.

While some have argued for increased aid to developing countries by the governments of the developed world,[70] by allowing for the market to allocate capital to where it is most productive, we can overcome some of the inefficiencies inherent in the public-sector allocation of capital. That is, unless there is some special provision in the budgetary process removing such decisions from the political arena, direct foreign aid—as contrasted with the market allocation of capital—will always be based to some extent on political rather than efficiency considerations. Moreover, as demonstrated by Dharmapala and Hines, those countries most likely to engage in tax competition have good governments, are least likely to waste resources, and are therefore best suited for capital transfers.

B. Risk-Shifting Features of the Income Tax

Advocates of harmonization argue that tax competition limits the ability of developed nations to adopt and retain welfare states. But, because taxes shift risk away from capital to government, taxes should not necessarily cause capital flight.[71] If properly structured, a corporate income tax may have a minimal—even nonexistent—burden on corporate capital.

One of the key features of an income tax is that the tax is lower when income is lower and higher when income is higher. Consequently, the tax provides a form of implicit insurance whereby some of the risk of the business is essentially shifted to the government, who we can assume does not change the level of public goods provided based on the level of taxes paid. It has been demonstrated that imposing this type of tax at a higher level can actually result in more investment in a high-tax jurisdiction rather than a lower level.[72] That is, it is not so clear that imposing a higher level of tax on its own will necessarily result in investment leaving a jurisdiction, as is commonly assumed by those opposed to tax competition.

Domar and Musgrave demonstrated that, assuming a properly structured corporate tax regime, there is essentially no burden imposed on the taxpayer by

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70. Mitchell A. Kane, *Bootstraps and Poverty Traps: Tax Treaties as Novel Tools for Development Finance*, 29 YALE J. REG. 255, 260, 267, 272–73 (2012).

71. Evsey D. Domar & Richard A. Musgrave, *Proportional Income Taxation and Risk-Taking*, 58 Q. J. ECON. 388 (1944).

72. Agnar Sandmo, *Differential Taxation and the Encouragement of Risk-Taking*, 31 ECON. LETTERS 55 (1989).

the tax.[73] The intuition is that the income tax has effectively made the government a partner in the investments of the taxpayer—a partner which, because taxes paid or loss offsets credited depend upon the profits of the corporation, shares in both the upside and downside risk.[74] In other words, the government takes on risk and is compensated for doing so, effectively issuing an insurance policy to the firm. Taxpayers are thus essentially able to eliminate the tax burden on capital income by shifting investments to risky assets until the tax on investment capital is effectively eliminated. This analysis is the same whether we are speaking of active or portfolio investments. Moving to a perfectly efficient tax structure would require two elements: exempting the risk-free return (which is generally only a very small portion of income earned) and the implementation of full-loss offsets.[75] While examples of systems that approximate the Domar-Musgrave ideal exist outside of the United States, current proposals for reform would accomplish a similar result in the United States.[76] A consumption tax, for example, would exempt the risk-free rate of return on investments (as well as the inflation rate).[77] As many authors have pointed out, the key distinction between consumption taxes and labor taxes on the one hand, and the income tax on the other, is that effectively consumption and labor taxes exempt the risk-free rate of return on investments and the inflation rate.[78] Because this rate is generally only a very small portion of the income earned, increased reliance on such taxes is unlikely to lead to significant inefficiencies.[79]

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73.   *See generally* Domar & Musgrave, *supra* note 71.

74.   In other words, the corporate income tax effectively shifts some of the risk of the taxpayer's investments to the government. This risk shifting results in the government sharing both in the income and the loss of an investment.

75.   DAVID BRADFORD, THE X TAX AND THE WORLD ECONOMY: GOING GLOBAL WITH A SINGLE, PROGRESSIVE TAX (2005). By "full-loss offsets," I mean to say that taxpayers are granted full deductions against net income for operating losses incurred during the same taxable year.

76.   Because 'Ibbotson's finds that the risk-free return has historically been less than one-half of one percent, one may argue that the difference between any standard income tax and a Domar-Musgrave tax is negligible with respect to the first prong, which is to say, taxing the risk-free return. IBBOTSON ASSOCIATES, STOCKS BONDS BILLS AND INFLATION 2004 YEARBOOK 88 (2005). Moreover, there are a number of countries which essentially allow for full loss offsets. For example, in Sweden, there is essentially a credit granted equal to tax value of the loss. HUGH AULT & BRIAN ARNOLD, COMPARATIVE INCOME TAXATION: A STRUCTURAL ANALYSIS 237–39 (2nd. ed. 2002). Several current proposals for reform would approximate the Domar-Musgrave ideal. *See, e.g.*, BRADFORD, *supra* note 75 (proposing a tax on consumption via the exemption of certain portions of income); Michael J. Graetz, *One Hundred Million Unnecessary Returns: A Fresh Start for the U.S. Tax System*, 112 YALE L.J. 261 (2002) (proposing a consumption tax for the majority of Americans).

77.   Joseph Bankman & Thomas Griffith, *Is the Debate Between an Income Tax and a Consumption Tax a Debate About Risk? Does it Matter?*, 47 TAX. L. REV. 377 (1992).

78.   *See id.*

79.   *But see* John R. Brooks, *Taxation, Risk, and Portfolio Choice: The Treatment of Returns to Risk Under a Normative Income Tax*, 66 TAX L. REV. 255 (2013) (arguing that a normative tax is not possible where there is a positive risk-free rate). Some scholars have argued for these forms of taxes based on their increased inefficiency.

This feature is particularly relevant in making sense of the finding of the Swank study that openness does not result in a smaller public sector but rather a shift in the methods of taxation.[80] It is very likely that one of the ways in which countries adjust their tax systems to make them more efficient is to make them more closely resemble a normative Haig-Simons income tax, which is to say, one which does not place non-economic limits on the use of losses.[81] To the extent that a country can adopt such a system, it will likely experience more rather than less capital investment. Indeed this solution is further suggested by the finding of Dani Rodrik that the greater the risk a country faces due to its "terms of trade,"[82] the larger the public sector. That is, the more the risk the country faces, the higher the demand for risk minimizing through the public sector.

Based on this analysis, it may very well be the case that tax competition does indeed affect the structure of the tax systems of the developed world. However, the effects may be different than are commonly assumed. The effect may merely be to develop more efficient methods of taxation.

C. Why the Governments of the Developed World Do Not Support Tax Competition

If tax competition stimulates economic activity in low-tax and high-tax jurisdictions alike, one may ask why so many governments in the developed world have gone to such lengths to stifle competition for business investment. However, the reasons for this opposition become clearer upon an examination of the incentives of government agents. This section discusses how the incentives of governmental agents systematically differ from the country as a whole, and therefore lead the agents to oppose tax competition. There are two applications of public choice theory to the tax harmonization debate. First, it brings further doubt to the notion that tax competition will decrease efficiency. Second, it helps to explain why most governmental and quasi-governmental agencies support tax harmonization.

1. Public Choice and the Provision of Public Goods

The view of tax competition in the academic community has been shifting. One of the key examples of this shift in attitudes is Agnar Sandmo's presidential address to the European Economic Association.[83] In his address, he contrasts the views of the welfare state by economists in the 1940s and 1950s with those of the current generation.[84] Sandmo argues that economists generally, and in

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80.   Swank, *supra* note 49, at 691.

81.   *But see* Brooks, *supra* note 79.

82.   This refers to a variety of risks, most prominently featuring exchange rate risk.

83.   Agnar Sandmo is a professor of economics at the Norwegian School of Economics and is a past president of the European Economic Association.

84.   Agnar Sandmo, *Economists and the Welfare State*, 35 EUR. ECON. REV. 213 (1991).

particular Scandinavian economists, have moved from being strong advocates for the welfare state to being much more critical.[85] This is a result both of the expansion of the public sector in recent decades and of the development of economic theory in the areas of public finance, insurance and incentives, and public choice. Sandmo argues that the strong belief in central planning and social engineering has yielded to a new emphasis on consumer sovereignty, the efficiency of competitive markets and the crucial role of private incentives as constraints on economic policy.[86] More specifically, the view of benevolent politicians who work for the benefit of individual consumers and workers who were supposed to react rather passively to the allocation mechanisms introduced by the social engineers.[87] This view of economic and social policy has been criticized from several angles in recent years.[88] Sandmo argues that the recent work in the fields of public finance, insurance, and incentives have led to a much better understanding of the importance of private incentives as constraints on public economic planning.[89] An important contribution of the public choice school has been to point out that incentives by agents in the public sector to implement economic policy must be taken into account.[90]

The "naïve" view against which Sandmo argued might be described as follows. Suppose that a case of market failure has been identified, for example, as the result of externalities or informational asymmetries. An adherent of the naïve view would then conclude that a gain in social welfare or efficiency would result from transferring the activity in question to the public sector.[91] The fallacy in this line of reasoning is obvious. One fails to consider the opportunities and incentives of public-sector agents to implement the policy required to attain the optimum.[92] To some extent this naïve view is embedded in the negative assessment of tax competition. If the government and its actors are viewed as wholly beneficial, then any restriction on its power is likely to be welfare reducing. However, if the view of government and its actions is more complicated, then restrictions on the ability of government to tax capital income is less clear. In particular, restrictions on government's ability to tax may in fact increase the efficiency of the economy rather than reducing it, as is feared by the OECD.[93] In fact, according to OECD data, corporate taxes as a percentage of GDP increased annually between the years 2009 and 2011, from 2.8 to 3.0.[94]

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85.   *Id*. at 213.

86.   *Id*. at 238.

87.   *Id*. at 235.

88.   *Id*. (citing GEOFFREY BRENNAN & JAMES M. BUCHANAN, THE POWER TO TAX (1980)).

89.   *Id*.

90.   *Id*.

91.   For a description of the difference between the two views, see generally JAMES BUCHANAN & RICHARD MUSGRAVE, PUBLIC FINANCE AND PUBLIC CHOICE: TWO CONTRASTING VISIONS OF THE STATE (1999).

92.   Sandmo, *supra* note 84, at 239.

93.   Gary S. Becker & Casey Mulligan, *Deadweight Costs and the Size of Government* (NBER Working Paper No. 6789, 1998). They argue that a tax system which is suboptimal from a simple

If, contrary to the evidence, it is the case that tax competition has a negative impact on the size of government, then one could formulate a public choice argument in favor of tax competition to the effect that governmental agents have an incentive to cause government to be larger than its optimal size. This is in part due to the fact that their compensation is in some sense a function of the size of the organization they oversee.[95] In addition, the larger government, the more it will profit individuals to lobby agents and hence the more favors they will receive.[96] Tax competition may help to reduce government to the optimal size. While this may be quite a cynical view of governmental agents, there does seem to be some merit in it.

This argument is based on the assumption that tax competition does in fact limit the size of government. Of course, if tax competition only limits the *types* of taxes that can be used and *not* the overall level of government, then the public choice argument only applies to the choice of tax instrument by the governments. That is, in the absence of tax competition, government agents may have an incentive to utilize less efficient means of taxation because they are more politically palatable rather than being optimal from a policy perspective.[97] With tax competition, there would be greater pressure on politicians to choose efficient tax instruments which would thereby again cause tax competition to improve the efficiency of the system.

To the extent that this argument is taken to its logical conclusion, because no one government or group of government agents derives a large share of the benefits of third-world development, when capital leaves their individual jurisdiction, they suffer the entire cost. This results in a "tragedy of the commons" problem for allowing investment in developing countries.[98] Individual governments will therefore attempt to allow too little investment in developing countries than is optimal. Allowing tax competition would, alternatively, allow that amount of capital flowing to developing countries to more closely approach its optimal level.

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perspective can actually improve taxpayer welfare because the system creates additional political pressure for suppressing the growth of government. They argue that spending was not decided upon and then taxes were introduced, but rather taxes were raised and then spending was increased.

94. G20 LEADERS DECLARATION, *supra* note 4, at 16. From a longer-term perspective we see that, at least with respect to OECD countries, corporate taxes as a percentage of GDP have increased from 2.2% of GDP in 1965 to 3% of GDP in 2011. BASE EROSION REPORT, *supra note* 4, at 16 (2013).

95. JAMES M. BUCHANAN & GORDON TULLOCK, THE CALCULUS OF CONSENT 286 (1962).

96. *Id*. at 286–88.

97. *See* STEURLE, *supra* note 8 (discussing how the results of the political process are often governed by considerations other than efficiency).

98. A tragedy of the commons results when individual agents do not realize the entire cost of their actions, but derive the entire benefit. *See* EUGENE SILBERBERG, THE STRUCTURE OF ECONOMICS: A MATHEMATICAL APPROACH 229–30 (2d ed. 1990). An inefficient allocation results, with less than optimal results for all. *Id*. This is exemplified in the game-theory model, "the prisoners' dilemma," in which both players in the game end up making choices that make them collectively worse off than had they been able to cooperate. DOUGLAS G. BAIRD ET AL., GAME THEORY AND THE LAW 33, 48–49 (1994).

Moreover, even if it were true that tax competition will result in a decreased ability of governments to fund their public sector with capital taxation, it may not necessarily follow that restricting tax competition will allow governments in the developed world to retain the "rents" derived from their current competitive advantage. As pointed out by Julie Roin, countries can compete along many dimensions, and merely restricting one dimension will not prevent them from competing along others.[99] Restricting tax competition does not mean that competition for foreign investment will end. Competition will simply shift to spending programs or other types of behavior.[100] For example, one empirical study shows that tax harmonization will also lead to countries adopting a lower audit rate in order to effectively reduce taxation. The study shows that harmonization could turn an honest country into an evading one.[101] The authors of the study suggest that tax harmonization can make both high-tax and formerly low-tax countries worse off.[102] By altering the basic approach to laws and legal decisions, these changes can subvert fundamental notions of behavior in these societies.[103] Analytically, this is an extension of the point that there are many margins along which these countries will compete. Merely closing down one dimension of competition will not end competition. These other forms of competition might have worse social consequences than tax competition.

2. Public Choice and the Governmental Reports

Under a public choice view of tax competition, it is obvious why governmental advisers have a bias in favor of tax-harmonizing policies.[104] Harmonization allows government agents a fuller set of potential tax instruments to use to raise revenue for the projects they favor.[105] Furthermore, to the extent that tax competition replaces foreign aid, the governmental agents will lose some rents that could be extracted from lobbying for such aid.

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99.   This is an example of "rent dissipation." RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 280–81 (6th ed. 2003). *See also* Roin, *supra* note 2, at 570–72.

100.   Roin, *supra* note 2, at 570–85.

101.   Helmuth Cremer and Firouz Gahvari, *Tax Evasion, Fiscal Competition and Economic Integration*, 44 EUR. ECON. REV. 1633 (2000) (showing, in the context of examining the implications of tax evasion for fiscal competition and tax harmonization policies in an economic union, that tax integration may turn an honest country into an evading country). Special interests generally favor harmonization of the government policies of different jurisdictions because governments control the benefits to harmonized policies, while the benefits to competition are determined by the market. Competition, however, tends to undermine the influence of special interest groups because market mechanisms dominate rather than government decision-makers.

102.   *Id*.

103.   *Id*.

104.   Bruno S. Frey & Reiner Eichenberger, *To Harmonize or to Compete? That's Not the Question*, 60 J. PUB. ECON. 335, 341 (1996).

105.   *Id*. at 339.

While the theory of public choice has grown strongly in importance and become an accepted economic principle,[106] the area of international tax policy has remained singularly unreceptive.[107] The academic commentary on international taxation has been largely dominated by the assumption that governments maximize social welfare.[108] As the public choice literature has demonstrated, this is a rather naïve assumption to make.[109] The result of the rejection of the public choice theories has been that the limitations that tax competition imposes on governments are necessarily welfare reducing.[110] A more nuanced approach may not yield the same results.

One of the first results from applying public choice theory to the tax-harmonization debate is to realize that there is a selection effect that operates to favor economists and other advisers who are in support the harmonization of tax rates.[111] Governmental agents are interested in finding those whose opinions favor their actions and are therefore more likely to appoint individuals who are favorable to their views to committees that will examine the impact of tax competition. In addition, individuals who believe that government is an unalloyed force for good in society are more likely to want to serve on such commissions, and the same is true for those who believe that tax competition represents a major social evil. If an individual believes in the public choice view, they are much less likely to view the output of any such commission as likely to promote the social good, and so less likely to devote resources to it. Another reason why such committees are likely to find that harmonization is optimal is that they can effectuate harmonization,[112] whereas effective tax competition is beyond their power. The results of tax competition will only emerge as time passes. They generally cannot be predicted ahead of time with any reasonable degree of accuracy. Therefore, committees are less likely to be inclined towards tax competition because it leads to uncertainty in the distribution and amount of benefits.

Viewing tax-harmonization committees as cartels leads to the prediction that the result of such committees will always be a universal increase in taxes.[113] One example of this was a preliminary agreement reached by the European Community Council of Ministers in June 1991, that from 1993 onward the rate

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106.   Sandmo, *supra* note 84, at 239.

107.   *Id.* at 241.

108.   Frey & Eichenberger, *supra* note 104, at 339.

109.   James M. Buchanan, *Politics Without Romance*, *in* THE THEORY OF PUBLIC CHOICE II 13 (James M. Buchanan & Robert D. Tollison eds., 1984) (characterizing the American theory of politics prior to the emergence of public choice theory in the 1950s as "the romantic assumption that all persons in their political roles seek only to further their own conceptions of some "common good," and with utter and total disregard for their own more narrowly defined self-interest").

110.   For a summary of this work, see SIJBREN CNOSSEN, TAX STRUCTURE DEVELOPMENTS IN THE E.C. (1987).

111.   Frey & Eichenberger, *supra* note 104, at 339.

112.   *Id.*

113.   *Id.*

of value added taxes should be *no less* than fifteen percent in all member countries. This resulted in three member nations—Germany, Spain and Luxembourg—being forced to raise their tax rates. The inability to exit these agreements and the suppression of dissent have been identified as major threats to the 'citizens' welfare in public choice theory.[114]

Another argument for why the governments of the developed world are not very interested in promoting development in the third world if it requires tax competition has to do with the timing of the returns from investments made in the developing nations.[115] If the developing world loses some capital to the third world, this results in a loss of tax revenue now. If this capital is more productive in the third world and ultimately results in development of these nations, very likely these results will occur years, if not decades in the future.[116] Even if there is not an actual loss of capital from the developed world, there is certainly a restriction of the available taxing methods, which may reduce the payoffs that politicians receive. In addition, to the extent that lesser-developed countries seek investment capital through market mechanisms as opposed to seeking foreign aid, the governmental and quasi-governmental agents in the developed world will wield less power than they would otherwise. Therefore, governmental agents will encounter a price for tax competition, which has an immediate effect, while the positive effects on the growth and development of poorer nations will not be in evidence until well after the politicians are out of office. The government agents who will have to make the decision to forgo revenue will not be in office when the benefits are reaped, and therefore they are less interested in fostering long-run development.[117]

CONCLUSION

This paper has attempted to demonstrate that, taking into account standard economic theory relating to the selection criteria for public goods and the risk-shifting features of the income tax, it is not surprising that there has not been a race to the bottom in the share of corporate tax revenues that contribute to the tax base for funding government welfare programs. Rather, according to several tenants of standard economic theory, including the selection criteria for public goods and the risk-shifting features of the income tax, we should expect that tax competition will force countries to adopt more efficient tax systems than those which they might otherwise have adopted. Notwithstanding the tenor of the recent G20 Leaders Declaration at the 2012 meeting of the OECD in Los Cabos, and the 2013 action plan which followed, OECD data indicates that the

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114.   *See, e.g., id.* at 341. While the politicians in power benefit most from the rents created by harmonization, the politicians in opposition may also appropriate part of this rent.

115.   *See generally* Joel Mokyr, The European Enlightenment, the Industrial Revolution, and Modern Economic Growth, Max Weber Lecture No. 2007/07 (2007); Joel Mokyr, *Why Was the Industrial Revolution a European Phenomenon?*, 10 SUP. CT. ECON. REV. 27 (2003).

116.   *See id.*

117.   BUCHANAN & TULLOCK, *supra* note 95, at 31–43.

contraction of corporate tax revenues has not materialized. Therefore, absent harmonization, but rather by restructuring their tax systems to more closely align with a normative income tax which does not place noneconomic limits on the use of losses, developed nations should continue to attract business investment, funding the redistribution of wealth within their own borders, while allowing developing nations to compete for capital and investment.