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The Future of the Corporate Tax

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Abstract: This paper discusses three essential challenges of the present economic environment: serious long-term budget imbalances, dramatic increases in income inequality over recent decades, and a discrepancy between national or sub-national government jurisdictions and an increasing global economy. This trio of tough policy challenges necessitates a reevaluation of capital taxation in general, and the corporate tax in particular. Corporate taxation has an important role to play in both protecting the revenue-raising capacity of the income tax system and addressing income disparities. However, the global nature of economic activity requires modernization of corporate taxation; reform of U.S. corporate taxation is long overdue.

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I. Introduction

As the U.S. income tax approaches 100, policy-makers, experts, and the public are clamoring for reform. Over time, many aspects of the tax code have become unwieldy and inefficient, and it is undisputable that one could craft a tax system that collected the requisite revenue in a way that made simultaneous improvements in efficiency, fairness, and simplicity. It is a constant lament of economists that politics too often gets in the way of such reforms: political actors introduce myriad tax law changes that thwart the ivory tower desiderata of experts.[1]

The corporate tax in the United States today performs badly by almost any metric, and there is unanimous consensus regarding the need for reform. The U.S. statutory tax rate is relatively high, yet the tax raises less revenue as a share of national income than it does in our peer countries. The rules are mind-numbingly complex, and the treatment of international income raises particularly vexing challenges. The tax generates distortions and inefficiencies on multiple margins: it alters decisions regarding debt versus equity finance, it affects the choice of organizational form, and it alters the nature, location, and reporting of business activity.

Yet achieving a consensus on the ideal corporate tax reform has been difficult for several reasons. The business community wants lower rates and a more generous treatment of international income, yet they are unsurprisingly less interested in measures that would expand the tax base. The public is typically in favor of taxing corporations, yet they are frequently confused about who bears the burden of the tax. And it is hard to

[1] A recent example of the phenomena was the American Jobs Creation Act of 2004. Aside from the repeal of the extra-territorial income exclusion, there was little to recommend the legislation, as discussed in Clausing (2004, 2005).

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blame them, since the economics profession shows more confusion on this question than on most. Policy-makers want to be responsive to both the public and the business community, but they face a series of daunting challenges including (i) short-run and long-run budget imbalances, (ii) several decades of economic growth that have occurred amidst dramatic increases in income inequality, such that many households have experienced relatively stagnant wage growth, and (iii) the challenges of policy-making at a national (or subnational) level of jurisdiction while living in an increasingly integrated world economy.

This paper will begin by discussing these key challenges facing U.S. policy-makers. Section III will then discuss the role of capital taxation, considering how theories of capital taxation inform our understanding of policy tradeoffs. Once the desirability of taxing capital is established, Section IV discusses the role of corporate taxation in the context of today's policy challenges. Finally, section V will examine policy alternatives for collecting the corporate taxation in a modern global economy, focusing in particular on the issues surrounding the taxation of international corporate income.

II. U.S. Tax Policy Challenges

The current U.S. policy environment offers a trifecta of daunting challenges: serious long-term budget imbalances, dramatic increases in income inequality over the previous decades, and a mismatch between the jurisdictions of tax policy choices and economic actors that often operate beyond national boundaries. This combination of economic challenges proves particularly vexing with respect to capital taxation, since

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capital taxation can be an important source of revenue both directly and indirectly (by protecting other aspects of the income tax base), capital income is distributed far less equally across society than labor income, and capital income is considered more internationally mobile than labor income.[2]

Consider first U.S. budgetary pressures. In addition to recent short-term budget deficits driven in large part by the recent financial crisis and economic slowdown, there is a far larger long-term mismatch between forecasts of revenues and spending at the federal level. Rising healthcare costs and demographic factors have dramatically increased forecasted spending on Medicare and Medicaid. According to the most recent Congressional Budget Office [CBO] long-term budget outlook, combined federal spending on Medicare, Medicaid and Social Security is predicted to rise by 6 percentage points of GDP over the coming 25 years.[3] Unless dramatic changes to existing tax policies are allowed, public debt will increase dramatically. The CBO "alternative fiscal scenario" assumes current policies are allowed to continue; these policies include the Bush tax cuts and short-term patches that prevent the alternative minimum tax from affecting many taxpayers. Under this forecast, public debt rises dramatically, to 90% of GDP by 2022, and approaching 200% of GDP by 2037. Of course, these forecasts raise many questions regarding the ideal baseline scenario as well as assumptions regarding growth in health care costs and other components of government spending. But there is little doubt that long-term budget pressures are quite serious.

Increasing income inequality is another important policy challenge. According to the U.S. Census Bureau, the share of income received by the top 5% of households has

[2] Although the common view is that capital income is more internationally mobile than labor income, some challenge that perspective. See, e.g., Avi-Yonah and Ohrn (2012).
[3] See CBO (2012), p.1.

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increased from 16.5% in 1980 to 21.3% in 2010, 30 years later. This nearly mirrors the increase for the top quintile, from 44.1% to 50.2%, implying that most of the increased share of income at the top has gone to the top 5% of households. The mean household in the top 5% saw their incomes increase (in constant 2010 dollars) by 64% over the previous three decades, from about $175,000 to about $288,000, while the mean household in the middle quintile saw income gains of only 11% over this period, from about $45,000 to about $49,000. When one accounts for the extra hours worked by U.S. households during this time period, and particularly the increased employment by secondary earners, these gains in the middle of the distribution are even more paltry.[4]

The distribution of wealth is far more skewed than the distribution of household income. In 2010, the top 5% of households receive 21% of income, but they receive 85% of capital gains and 65% of dividends.[5] Indeed, capital income is far more concentrated than regular income, and capital income is also becoming more concentrated over time. For example, the highest income 400 taxpayers received 16% of all long-term capital gains in 2009; this share has been increasing since the IRS began collecting these data in 1992, when the share of the richest 400 taxpayers was about under 6% of all long-term capital gains.[6]

These changes occur amidst a steady decline in labor's share of national income, as documented in Jacobsen and Occhino (2012). While three separate data sources employ different measures of labor's share, they all confirm this decline in recent decades. Data from the U.S. Bureau of Economic Analysis show labor's share declining

[4] See Congressional Budget Office (2011). *Changes in the Distribution of Workers' Annual Earnings Between 1979 and 2009*.
[5] Calculations are from data of the Tax Policy Center. See http://www.taxpolicycenter.org/T09-0490.
[6] See data summarized in Burman (2012), Figure 2.

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from about 67% to about 64% over the prior decade, data from the Bureau of Labor Statistics show the share declining from about 63% to 58% (from the early 1980s to recently), and data from the Congressional Budget Office show labor's share of income decreasing from 75% in 1979 to about 67% in 2007.

The recent evolution of the distribution of income in the United States raises concerns for several reasons. First, to the extent that gains from economic growth do not benefit the society at large, that is clearly a big concern. But even if the middle class is making small real gains in income, the dramatic increase in income inequality is still a concern. Income confers status, power, and access to a better starting point (schooling, health, etc.) for one's progeny. Such large increases in income inequality raise concerns about the quality of our democracy and the availability of opportunity.

A final tax policy challenge is the mismatch between the jurisdiction of policy-makers and more globally integrated economic actors. Figures 1 and 2 show two measures of global integration, ratios of international trade to GDP and ratios of foreign direct investment flows [FDI] to GDP. In both Figures, it is clear that the United States has become substantially more integrated with the world economy in recent decades; trade to GDP ratios have tripled over the previous 40 years, and FDI to GDP ratios have tripled in the previous 20 years. Further, measures of cross-border portfolio investment and international capital mobility have also shown even more substantial increases. Figure 3 shows the total stock of foreign assets and liabilities (i.e., the sum all U.S. assets held by foreigners and all foreign assets held U.S. persons) relative to (two times) GDP. In 2011, U.S. entities owned $21 trillion in foreign assets and foreign entities owned $25 trillion in U.S. assets, relative to a U.S. GDP of $15 trillion. Thus, both assets and

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liabilities are well in excess of the size of the U.S. economy. This ratio has increased more than seven-fold since 1976, and growth has been particularly rapid over the previous decade.

Yet despite the fact that goods, services, and investments often flow relatively freely across national boundaries, policy-makers' authority is typically confined to national or sub-national jurisdictions. Perhaps the European Union is the exception that proves the rule. This set of nations has undertaken substantial economic integration, even in some cases adopting the same currency, yet most tax and spending decisions are still taken at a national or sub-national level. The EU budget presently stands at only about 1.1% of EU GDP.[7]

III. Capital Taxation

As noted, this combination of economic challenges proves particularly vexing with respect to capital taxation. While capital taxation can be an important source of revenue and progressivity, there is some concern that capital taxation may not be efficient. Indeed, there is a tradition of models in the public finance literature that suggest that the optimal capital tax rate is zero. The logic behind these models is that capital taxation will reduce the future stock of capital, investment in new production, and the growth rate of the economy. The zero tax rate result is due to the highly distortionary nature of capital taxes over time, as discussed in Auerbach and Hines (2002).

The seminal papers in this area are Judd (1985), Chamley (1986), and Atkinson and Stiglitz (1976); subsequent analysis by Jones, Manuelli, and Rossi (1997), Atkeson, Chari, and Kehoe (1999) and Chari and Kehoe (1999) have shown that the main result is

[7] See http://ec.europa.eu/budget/explained/faq/faq_en.cfm#2011, accessed August 20, 2012.

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robust to a number of model extensions. Yet aspects of these canonical models are highly unrealistic, including infinitely lived households, perfect foresight, perfect capital markets, and so on. Further, recent theoretical work has suggested channels whereby there is important role for positive capital taxes, often at rates similar to what we observe in practice.

For example, Conesa, Kitao, and Krueger (2009) take into account incomplete capital markets and an explicit life-cycle structure to savings decisions. Their model generates an implied optimal capital tax rate of 36%, and the nature of their result is robust to changes in key economic parameters. Piketty and Saez (2012) employ a model with an explicit role for inheritance, noting that bequest taxation is optimal when labor income is no longer the unique determinant of lifetime incomes; the optimal inheritance tax is about 50-60% in their model. Together with imperfect capital markets and uninsurable idiosyncratic shocks to rates of return, the model also implies an optimal capital tax due to uninsurable uncertainty about future returns, at a rate that may exceed the optimal labor income tax.

Farhi, Sleet, Werning, and Yeltekin (2012) also suggest a political economy rationale for positive capital taxation. In this model, large degrees of unchecked wealth inequality generate political demands for extreme expropriation capital taxes. However, in a dynamic game, these extreme outcomes can be avoided through more moderate levels of capital taxation over time, and the optimal capital tax schedule is progressive.

These newer models have many attractive features. First, they match the reality on the ground far more than the prior literature that emphasized the optimality of zero tax rates on capital. As Piketty and Saez note, the models of that prior literature imply that

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economists should support the elimination of all inheritance taxes, property taxes, corporate profit taxes, and taxes on dividends and capital gains. However, most economists would not recommend such a dramatic agenda, and most countries have in practice levied substantial taxes on capital, of 8-9% of GDP in the United States and the European Union.[8]

Second, in contrast to the implications of the zero capital tax literature, capital taxes do not appear to have the predicated large effects on the capital stock or on growth. Despite a wide variety of capital tax policy experiments, there remains little cross-country empirical evidence of large growth effects from lower taxes on capital. A recent study by Djankov et al (2010) does consider the impact of corporate taxation on investment using cross-country data, but their analysis is subject to a number of key caveats.[9] Indeed, as noted in Piketty and Saez (2012), capital to output ratios have been remarkably stable over time despite changes in tax policy.[10]

Third, there is little evidence that savings rates are sufficiently sensitive to tax policy parameters to generate the zero optimal capital tax result. Evidence from the behavioral literature suggests that household savings decisions are heavily influenced by psychological elements and minor transaction costs, indicating little support for the perfect foresight models. Also, bequests are left for many reasons, such as accidental and

[8] See data provided in the introduction of Piketty and Saez (2012).
[9] As they note, other studies do not typically use cross-country analysis. In their analysis, they employ a cross-section of 85 countries in 2004. They find that effective tax rates, but not statutory rates, have a statistically significant effect on overall investment. Yet the influence of effective tax rates on investment is still subject to caveats: (i) the absence of time series variation makes it impossible to control for country-specific fixed effects, (ii) the effect loses statistical significance when a complete set of control variables are added, and (iii) the effect loses statistical significance if Bolivia is excluded from the analysis, as noted by Gravelle and Hungerford (2011).
[10] See Piketty and Saez (2012), page 6.

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altruistic motivations, and these sorts of motivations also interfere with the zero capital tax optimality result.

Beyond the unrealistic features and predictions of the zero optimal capital tax literature, there are also several pragmatic reasons for taxing capital. First, in practice, it can be hard to distinguish capital and labor income, particularly for high-income and/or self-employed individuals that have discretion regarding the form in which they receive their income. Indeed, there is evidence that shifting between capital and labor tax bases takes place in response to tax rate differentials, as shown by Pirttila and Selin (2011), Gordon and Slemrod (2000), and Gordon and MacKie-Mason (1995). Thus, a zero capital tax rate, or merely a significantly lower capital tax rate than the labor tax rate, runs the risk of eviscerating the labor income tax base through income shifting.

Second, there are likely to be positive correlations between earning opportunities and savings propensities, and these correlations can render capital taxation efficient. Third, there are also other prominent features of the world that can generate a useful role for capital taxation, such as borrowing constraints and the uncertainty of future earnings; these considerations are discussed in more detail in Diamond and Saez (2011). Fourth, capital income is in part a reward for postponing consumption, or savings, but a substantial portion of capital income is also likely to be rents, as argued by Stiglitz (2012).[11] The efficiency considerations of taxing rents are far from dire; indeed, it may be optimal to tax away rents as much as possible since taxes on rents are nondistortionary, as explained in Dasgupta and Stiglitz (1971).

Finally, even though capital taxation may be efficient for the reasons described above, it is also important to note that capital taxation has an essential role to play in

[11] See especially arguments within chapter 4.

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terms of progressivity, given the fact that capital income is so highly concentrated, as shown in Section II above.

Still, one pragmatic consideration argues against capital taxation. In particular, if capital is highly mobile internationally, capital may avoid taxation by moving in response to tax rate differences among jurisdictions, thus shifting the burden of taxation onto immobile factors like labor and land. This consideration has important policy implications that are discussed in sections IV and V below.

IV. Corporate Taxation in the Context of Today's Policy Challenges

The corporate tax has an important role to play in addressing today's tax policy challenges, as it can be an important source of government revenue and tax progressivity. However, to understand the role of the corporate tax in a progressive tax system, one must first establish the incidence of the corporate tax. In a global economy, this question is particularly important. While early models of corporate tax incidence such as Harberger (1962) show that capital bears the tax in a general equilibrium framework, allowing free capital mobility in an open-economy, as in Harberger (1995,2008), Gravelle and Smetters (2006), or Randolph (2006), puts some or all of the tax burden onto labor.

The open-economy general equilibrium tax incidence mechanism works in a straightforward fashion. Corporate tax rate discrepancies between countries cause a movement of capital from high-tax to low-tax jurisdictions. In high-tax jurisdictions, the reduction in the capital stock lowers the marginal product of labor and the wage, with the opposite effects in low-tax jurisdictions. The magnitude of wage effects depends on a

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number of key economic parameters, as discussed in Gravelle (2010): the degree of capital mobility, the size of the country, product substitution elasticities, the relative capital intensity of the corporate sector, and the degree of factor substitution. Beyond uncertainty regarding these parameters, additional theoretical ambiguity comes from important real-world considerations that are left out of these complicated general equilibrium models. Such considerations include residence-based aspects of the corporate tax, subsidies for debt-financed investment (due to accelerated depreciation and the deductibility of interest payments), dynamic considerations, imperfect competition, the role of bargaining, and policy interactions among countries.

The combination of uncertain economic parameters within open-economy general-equilibrium tax incidence models and several important factors that are left out of the models entirely, or modeled elsewhere, make it quite difficult to establish the true nature of corporate tax incidence using theory alone. Yet empirical work in this area suffers from essential limitations. Many papers do not engage the theoretical mechanisms of the open-economy general equilibrium tax incidence models in their chosen specifications, and some consider other mechanisms, such as rent-sharing. Other papers rely on partial correlations between corporate tax rates and wages, without addressing concerns regarding spurious correlations and omitted variables. Much of this body of empirical work has been demonstrated to be insufficiently robust to relatively minor changes in specification. For a more detailed discussion of this body of work, see Gravelle and Hungerford (2008, 2011) and the survey within Clausing (2012).

New evidence is provided in Clausing (2012, 2013). Using the most comprehensive data sets to date, multiple methods, and many robustness and

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specification alternatives, this work shows no clear robust relationship between corporate tax policy parameters and wages. These analyses are based on data from OECD countries over the prior three decades. While it remains possible that labor bears some of the corporate tax burden, and the relationship is just not discernible using aggregate data, there are also several reasons why capital may continue to bear the corporate tax burden, described in detail in Clausing (2013).

Indeed, globalization itself provides two mechanisms through which workers in high corporate tax countries may not be disadvantaged due to capital outflows. First, since corporations are mere intermediaries in global capital markets in which a wide assortment of investors with different tax treatments invest, tax policy changes could affect the ownership and financing patterns of assets more than they affect the aggregate level of investment in different countries.[12] Since wages depend on the capital stock more than they depend on the ownership and financing structure of the capital stock, this consideration is likely to diminish the wage effects of corporate tax rate differences among countries. Second, global tax avoidance by multinational firms has become more sophisticated and pervasive, generating an increased divergence between the location of economic activity (such as investment, employment, and sales) and the location of income for tax purposes.[13] This divergence could reduce the wage effects of relative

[12] As noted above, somewhat surprisingly, there is little cross-country evidence on the relationship between corporate tax variables and *overall* investment or capital stocks outcomes, despite a large literature on the relationship between corporate taxation and foreign direct investment, reviewed in the meta-analyses of de Mooij (2005) and de Mooij and Ederveen (2003 and 2008). Djankov et al (2010) note that prior studies of corporate taxation and investment do not typically use cross-country analysis. In their analysis, they employ a cross-section of 85 countries in 2004. Djankov et al (2010) is discussed above, in section III and footnote 9.

[13] I have discussed these trends at great length in prior work, including Clausing (2009, 2011), Avi-Yonah and Clausing (2008), and Avi-Yonah, Clausing, and Durst (2009).

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corporate tax rates, since internationally agile firms can move income without commensurate movements of investment and jobs. Indeed, many of the most global companies have become increasingly adept at the creation of stateless income, as discussed in Kleinbard (2011). If firms can respond to tax differences among countries through *financial* or *organizational* decisions, this will lower the tax sensitivity of *real* activity, thus reducing adverse effects on labor associated from tax-induced reductions in the capital stock.

Finally, it is important to note that the corporate tax may also fall on profits, rather than on normal returns to capital. As Auerbach (2006) notes, if the corporate tax is actually a tax on rents, then it would not impose distortions on capital investment and would be borne by shareholders. The firms that pay corporate tax are very large, possibly suggesting a role for economies of scale and considerations of imperfect competition that may generate rents. For example, the IRS reports that in 2008, one fiftieth of one percent of corporations remit 66% of the corporate tax in the United States.[14]

The above considerations imply that taxing corporations in a global economy may be particularly challenging, due to the mobility of capital and taxable income. This raises important policy conundrums that will be tackled in the following section. Yet the preponderance of evidence suggests that corporate taxes are still likely to fall on either capital or shareholders, thus implying that corporate taxation has an important role in affecting the progressivity of the tax system.

Currently, for distribution tables, the corporate tax is allocated by the U.S. Treasury such that 82% of the burden is assigned to capital and 18% to labor. As

[14] The IRS shows this in Table 22, http://www.irs.gov/uac/SOI-Tax-Stats-Table-22-Returns-of-Active-Corporations,-Other-Than-Forms-1120S,-1120-REIT,-and-1120-RIC.

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described in Cronin et al (2012), the U.S. Treasury model identifies the share of the corporate tax that falls on normal versus super-normal returns (37% and 63%, respectively), and it then allocates the normal portion of the corporate tax 50/50 to capital/labor, and the super-normal portion entirely to capital. The Congressional Budget Office allocates the corporate tax entirely to capital income; corporate income taxes are borne by owners of capital in proportion to their income from capital. These assumptions are described in Congressional Budget Office (2011). The Joint Committee on Taxation has not distributed the corporate income tax due to the uncertainty regarding corporate tax incidence; in prior work, it was distributed to capital. Finally, the nonpartisan Tax Policy Center has done independent tax policy distribution tables since 2003. They assigned the corporate tax to capital income until September 2012; presently, they assign 80% of the corporate tax to capital income.

Table 5 of Cronin et al (2012) is reproduced below. This table indicates how different assumptions about the incidence of the corporate tax affect the distributional effects of the tax. If capital bears all of the corporate tax, the top 1% pay 50% of the tax and the top quintile pays 81% of the tax; if labor bears 18% of the corporate tax (the "new methodology" column), then the top 1% pays 43% of the corporate tax and the top quintile pays 76% of the corporate tax. Even if one assumes that the tax falls 50% on labor, which seems unlikely given the arguments above, the corporate tax remains highly progressive, with the top 1% paying 31% of the tax and the top quintile paying 69% of the tax.

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Table 5

Percent Distribution of the Corporate Income Tax Under Alternate Assumptions

(2012 Income Levels)

Family Cash Income Quintile	New Methodology	100 % Positive Capital	50 % Positive Capital & 50% Labor
Lowest	1.1	0.8	1.4
Second	3.2	2.3	4.6
Third	6.6	5.2	8.8
Fourth	12.0	9.7	15.8
Highest	76.0	80.9	68.9
Total	100.0	100.0	100.0
Top 10	66.1	72.8	56.0
Top 5	58.0	65.6	46.2
Top 1	43.0	49.8	30.6

As noted above, dividends and capital gains income is also very concentrated at the top tiers of the income distribution. Given the current favorable treatment of dividends and capital gains income, a well-functioning corporate tax has a particularly important role to play in a progressive tax system.

The corporate tax is also an important source of U.S. government revenue, at both the state and federal levels. Figure 4 shows that federal corporate tax revenues have fluctuated in recent years; they average about 10% of federal revenues. Figure 5 shows both federal corporate tax revenues and corporate tax revenues for all levels of government (including state and local) as a share of GDP over recent decades. Lately, corporate revenues have averaged about 2% of GDP. Thus, while the corporate tax was an even more important source of revenue historically, it is still a significant source of

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revenue. Notably, corporate taxes are a larger source of revenue in other high-income OECD countries, as shown in Figure 6; for these countries, corporate tax revenues are typically at least 3% of GDP in recent years.

Not only is the corporate tax an important source of revenue on its own, but it is perhaps even more important in protecting revenues from the personal income tax, particularly considering today's reduced tax rates on dividends and capital gains. Without a corporate tax, corporate form could provide a huge tax-sheltering opportunity, particularly for high-income individuals. This point is explained nicely in Gravelle and Hungerford (2011).[15] As discussed in Section III, there is evidence of shifting between capital and labor tax bases in response to such tax rate differentials, so policy makers should be cautious regarding the broader revenue consequences associated with lower corporate tax rates, which extend beyond the corporate tax base.

V. Collecting the Corporate Tax in Today's Economy

If there is one tenet that observers of the U.S. corporate tax agree upon, it is that the current corporate tax system is broken and in desperate need of repair. Indeed, many reforms have been suggested, often from disparate origins. The Obama Administration, the Organization for Economic Cooperation and Development (OECD), the House Committee on Ways and Means Chair Dave Camp, the Senate Finance Committee Chair Senator Max Baucus, and other outside observers all have reform proposals.

[15] As they calculate, sheltering opportunities exist when corporate rates fall below personal income tax rates and corporations retain a large share of their earnings. For example, a reduced corporate tax rate of 27% would provide sheltering opportunities for corporations that distribute less than 73% of their earnings.

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However, there is far less general agreement regarding the ideal shape of reform. Should one concentrate on simple base-broadening and rate-lowering reforms, or pursue a more systematic reform? Should reforms focus on enhancing the competitiveness of U.S. multinational firms, or should they focus on preserving the U.S. tax base? Should the reformed system pursue some abstract ideal of tax neutrality, and if so, which one?

These debates occur within a framework where the United States corporate tax appears to be an outlier in many respects. Figure 7 shows statutory corporate tax rates for OECD countries over the previous 30 years. While the average is now below 25 percent, the U.S. rate remains at 35 percent, where it has stood for the previous twenty years. However, it is important to note that despite our relatively high rate, U.S. corporate tax revenues are smaller as a share of GDP than they are in other OECD countries, where corporate tax revenues have not declined despite rate decreases, as shown in Figure 6.[16] In other OECD countries, corporate tax rate cuts have often been accompanied by measures to broaden the corporate tax base.

This section will discuss categories of reform options. First, incremental improvements can reduce the myriad distortions introduced by the corporate tax. Second, issues of organizational form are considered. Third, reform options that focus on the international taxation of multinational firms are addressed.

Baby Steps

Before turning to more systematic reforms, it is worth noting that even a simple base-broadening, rate-lowering reform would have merit, since it would lower many of the existing inefficiencies introduced by peculiar features of the U.S. corporate tax. For

[16] U.S. revenues as a share of GDP are shown in Figure 5.

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example, in the United States, accelerated depreciation rules, production income deductions, and myriad other special rules distort the allocation of resources across sectors. The treatment of debt and equity also generates a tax bias in favor of debt-financed investments, which receive a small tax subsidy (since interest payments are deductible for the firm), whereas equity investments may be double-taxed, since dividends and capital gains are sometimes taxed at the personal level, though at lower rates.[17]

All of these distortions would be reduced at lower tax rates, and lower rates should ideally be accompanied by the reduction or elimination of features that narrow the corporate tax base. Further, some have suggested disallowing the inflationary component of interest deductions; such a step would also lower the debt/equity distortion.

Reducing the Tax Distortion to Organizational Form

One often hears observers lament that the corporate tax makes no sense in a system where we already tax dividends and capital gains, since individuals ultimately bear the burden of all taxes. Yet the corporate tax plays a vital role in protecting the integrity of the individual income tax system, since if the corporate rate fell much below the top individual rate, the corporate form would provide tax-sheltering opportunities.[18] In general, depending on the relative tax rates of the top personal income tax rate, the corporate tax rate, and the tax rates on dividends and capital gains, business activity may be relatively tax advantaged in corporate or non-corporate (pass-through) form. At present, non-corporate form is typically tax-preferred relative to corporate form, so this

[17] Some investment income is earned by tax-exempt holders such as pensions, retirement accounts, charitable foundations, and other non-profits.

[18] This point is explained clearly in Jane G. Gravelle and Thomas Hungerford's "Corporate Tax Reform: Issues for Congress" CRS Report. December 16, 2011.

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distortion would be reduced by a lower corporate rate, though one should be careful not to create the opposite problem.

A related worry is the double taxation of corporate income. Still, the overall level of tax burden surely matters more than the number of taxes. (Most investors would happily exchange a single 20% tax for two 1% taxes on their capital income!) Further, resolving the double-taxation issue is not trivial. If all taxation is done at the personal level, some capital income that is held tax-free in pensions, endowments, and non-profits would go untaxed. Gravelle and Hungerford (2011) note that over 50% of individual passive income is held in tax-exempt form through pensions, retirement accounts, life insurance annuities, and non-profits.

Still, Altshuler, Harris, and Toder (2010) discuss the option of raising the tax rate on personal dividends and capital gains while lowering the corporate tax. This plan would lessen the distortions associated with the corporate tax and likely increase the ease of enforcement, if it is more difficult for individuals than corporations to avoid capital taxes.[19]

A related idea comes from the Mirrlees Review on tax reform in the United Kingdom.[20] They propose reduced tax rates for dividends and capital gains on shares where corporate tax had already been paid. They also suggest that the normal return to capital be exempt from taxation; this is done by including an allowance for corporate equity (ACE). The ACE would address the debt/equity distortion by providing a similar tax preference for equity financed investments. The intention of the Mirrlees plan is to

[19] Most assume that corporations have more opportunities for tax avoidance than individuals do. Still, Zucman (2012) estimates that 8% of world financial wealth of households is held in tax havens, most of it unrecorded.

[20] This is discussed in Mirrlees et al (2012).

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exempt the normal return to capital from taxation and only tax excess returns. Yet, it is far from transparent that such a generous treatment of the normal return to capital is justified, given the developments in the theory of capital taxation discussed in Part 3 above.

International Tax Options

The U.S. system of taxing international income is mind-numbingly complex, and observers bemoan the impracticality of administration, enforcement, and compliance. Beyond that, as noted above, the U.S. corporate tax is an outlier among peer (OECD) countries: our statutory corporate tax rate is high yet U.S. corporate tax revenues are a relatively low share of GDP. Further, there are growing concerns about the shifting of both profits and economic activity to low-tax countries. Even though the United States uses a worldwide system of taxation, deferral of U.S. taxation on foreign income until repatriation, cross-crediting, and other rules lighten the taxation of international income relative to U.S. income.

This section will discuss possible international reforms, including (1) a territorial system, (2) eliminating (or reducing the advantages of) deferral, and (3) formulary apportionment of international income.

1. Territorial Systems

A common argument for the U.S. adoption of a territorial system is that U.S. multinational firms are at a disadvantage when competing with multinational firms based in countries that use territorial systems of taxation. Indeed, many countries purport to tax

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on a territorial basis, and two economically important countries – the United Kingdom and Japan – have recently adopted territorial systems of taxation.

Still, such arguments about competitiveness ignore an essential fact: foreign territorial systems often tax foreign income far more heavily than the present U.S. system. In many cases of territorial taxation, categories of foreign income are taxed *currently*, even without repatriation. In Japan, current taxation is triggered if the foreign tax rate is less than 20%; in other countries, current taxation is triggered if the host country tax rate is less than ½ or ¾ of the home country rate.[21]

In contrast, the U.S. system enables "stateless income" creation through check the box regulations and other rules; these allow firms to generate income that does not fall under any taxing jurisdiction. After Kleinbard discusses the details of the U.S. tax system, he concludes that the data simply do not support the notion that U.S. multinational firms are less competitive than their competitors in territorial countries.[22]

Still, while a territorial system *could* raise tax burdens on foreign income for U.S. multinational firms, the firms themselves advocate for a territorial system that would instead *lighten* the U.S. tax treatment of foreign income, and the political process may indeed generate such an outcome. While a territorial system would reduce any concerns about competitiveness and tax disincentives for repatriation, it comes with an important downside. In particular, exempting foreign income from taxation entirely would dramatically relax the remaining constraint on shifting income abroad; this has the potential to generate large revenue losses.

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[21] See Joint Committee on Taxation. ''Background and Selected Issues Related to the U.S. International Tax System and Systems That Exempt Foreign Business Income.'' May 20, 2011. JCX-33-11.

[22] See Edward D. Kleinbard. "Stateless Income". *Florida Tax Review*. 699-773. Inference on p. 714.

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2. Ending or Limiting Deferral

There have been several proposals to end or limit deferral of U.S. taxation on foreign income while lowering the corporate tax rate. Senators Wyden (D-OR) and Coats (R-IN) proposed legislation that would repeal deferral and lower the corporate rate to 24%. Senator Baucas released a proposal that would couple an unspecified reduction in the corporate tax rate with either immediate taxation or exemption of all foreign income, ending deferral.[23] The Obama Administration proposed a minimum tax on foreign income earned in low-tax countries alongside a lower corporate tax rate. Grubert and Altshuler (2008) suggested a burden-neutral worldwide taxation plan that would combine the current taxation of foreign income (ending deferral) with a 28% corporate tax rate.

Kleinbard proposes a worldwide approach that would tax foreign earnings currently, under a residence-based system where firms are required to consolidate the earnings of foreign subsidiaries.[24] He bases this recommendation on the inference that it is fundamentally impossible to determine the true source of income, particularly in a modern economy where value is derived from intangible assets and internal synergies. Kleinbard recommends that this change be coupled with a lower corporate tax rate.

Such proposals have much to recommend them. A lower corporate tax rate would reduce the inefficiencies and distortions of the corporate tax, and eliminating deferral would quell the incentive to shift income and economic activities to low-tax countries.

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[23] The proposal would tax income from sales into the United States fully and currently. Foreign income would either be subject to a minimum tax or, in a second option, if the income were active business income, it would be taxed at a lower rate, and otherwise fully taxed. There would also be a one-time deemed repatriation tax on previously untaxed foreign earnings, payable over eight years.

[24] See Edward D. Kleinbard. "The Lessons of Stateless Income." *Tax Law Review*. 99-172.

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3. Formulary Apportionment

Formulary apportionment is another way around the puzzling source problem, since formulary apportionment would allocate worldwide income to individual countries by a formula that reflects their real economic activities. In contrast, separate accounting systems require firms to separately account for their income and expenses in each country, requiring vexing (and easy to manipulate) decisions about where income is truly earned. Indeed, 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.

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. This pattern is clearly shown in Figure 8, using data from U.S. multinational firms and their affiliates. Disproportionate amounts of income are booked in low-tax country destinations; countries with a high share of employment are not particularly low-tax countries.

My prior work provides more detail on the advantages and disadvantages of a formulary approach.[25] One possible economic disadvantage is worth noting here. Since formulary apportionment would base tax liabilities on the factors in the formula, mobile multinational firms might become more tax sensitive in their real decisions about

[25] This work includes Clausing (2009, 2011), Avi-Yonah and Clausing (2008), and Avi-Yonah, Clausing, and Durst (2009).

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investment and employment. For this reason, my prior work suggests a formula that is based solely on the destination of sales factor, or a formulary profit-split method that also relies on a sales-based formula. With careful implementation, such an approach might lessen concerns regarding tax competition under a formulary approach.

VI. Conclusion

This paper has argued that there is still a vitally important role for the corporate tax in the contemporary U.S. economy. Despite the fact that the economy is far more globally integrated than it was in decades past, there is no evidence that the corporate tax is now falling on labor. And despite the fact that old models of capital taxation argue against positive capital taxation, new models with far more realistic features suggest that capital taxation is not particularly inefficient in comparison to other taxes.

Thus, a healthy corporate tax can fulfill an important role in both generating tax revenue on its own and protecting the individual income tax base from abuse. In addition, given the dramatically skewed distribution of capital income, alongside decades of recent U.S. economic growth that has predominantly benefited those in the top tiers of the income distribution, corporate taxation has an essential role to play in a progressive tax system.

Finally, while the modern U.S. corporate tax is in desperate need of reform, there are many reform options that would improve the status quo. Even a simple rate-lowering, base-broadening reform would be welcome, but there are also ways to reduce distortions to organizational form as well as reforms that would address the seemingly intractable problem of taxing international business income. Together, these reforms can help create

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a corporate tax that is both less distortionary and far more suited to an internationally integrated economy. With luck, the next century of the income tax will witness just such progress.

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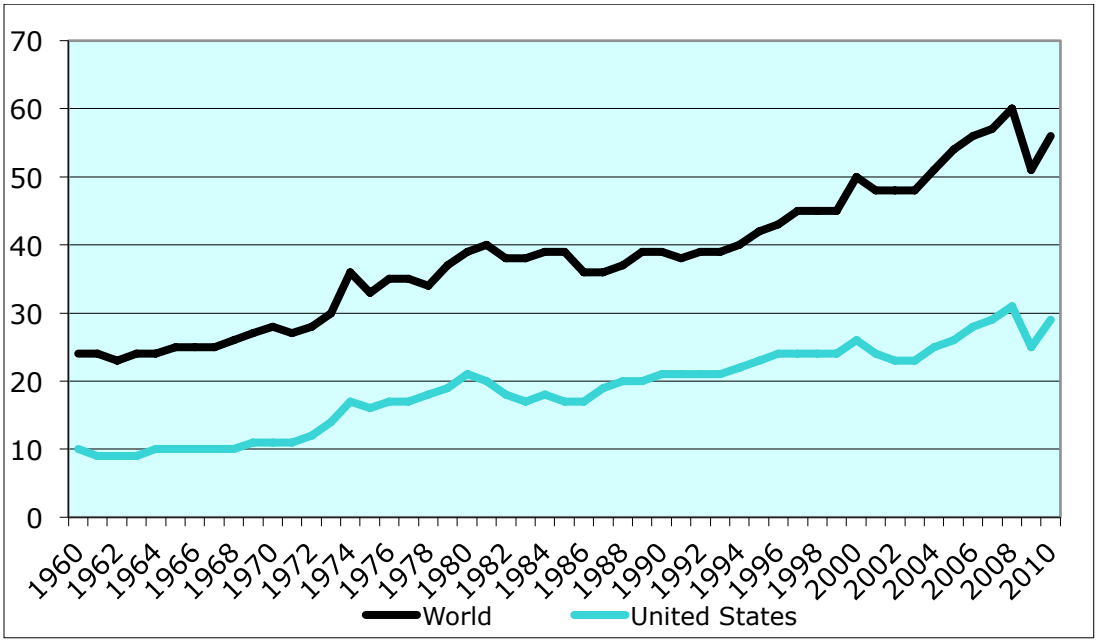
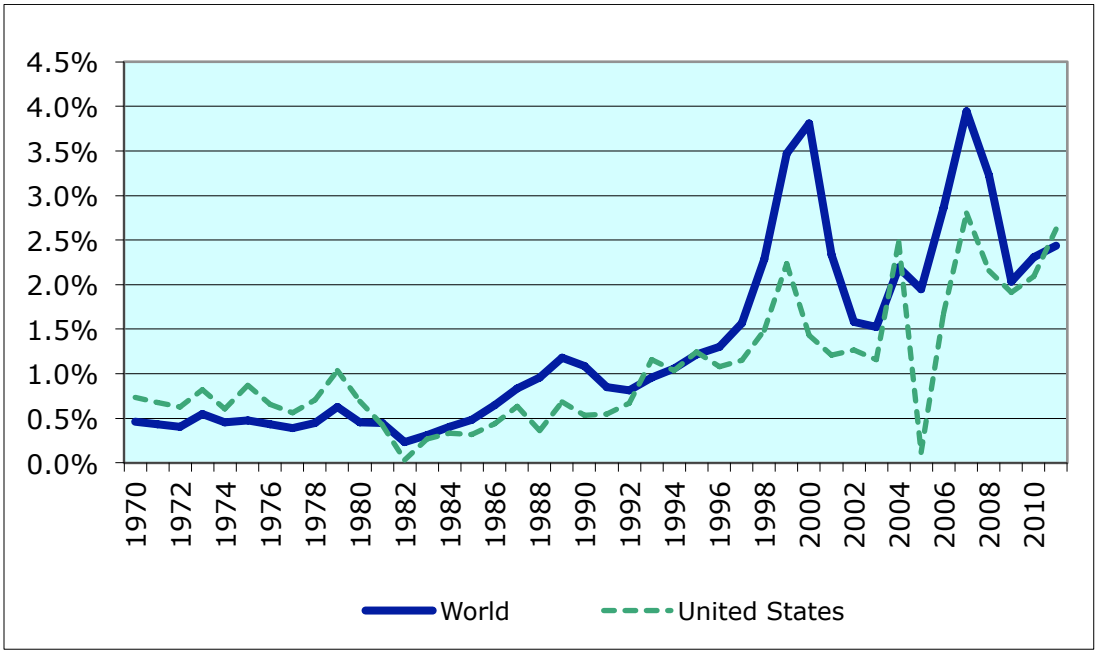
Figure 1: Trade to GDP Ratios

(Exports and Imports relative to GDP)



Data are from the World Bank's *World Development Indicators*.

Figure 2: Foreign Direct Investment
(Outward Foreign Direct Investment Flows, as a share of GDP)



Data are from UNCTAD and are available at http://unctad.org/en/Pages/Statistics.aspx/FDI/.

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Figure 3: Gross Foreign Assets and Liabilities Relative to GDP
(Gross Foreign Assets Held by U.S. + Gross U.S. Assets Held by Foreigners / (2*GDP))

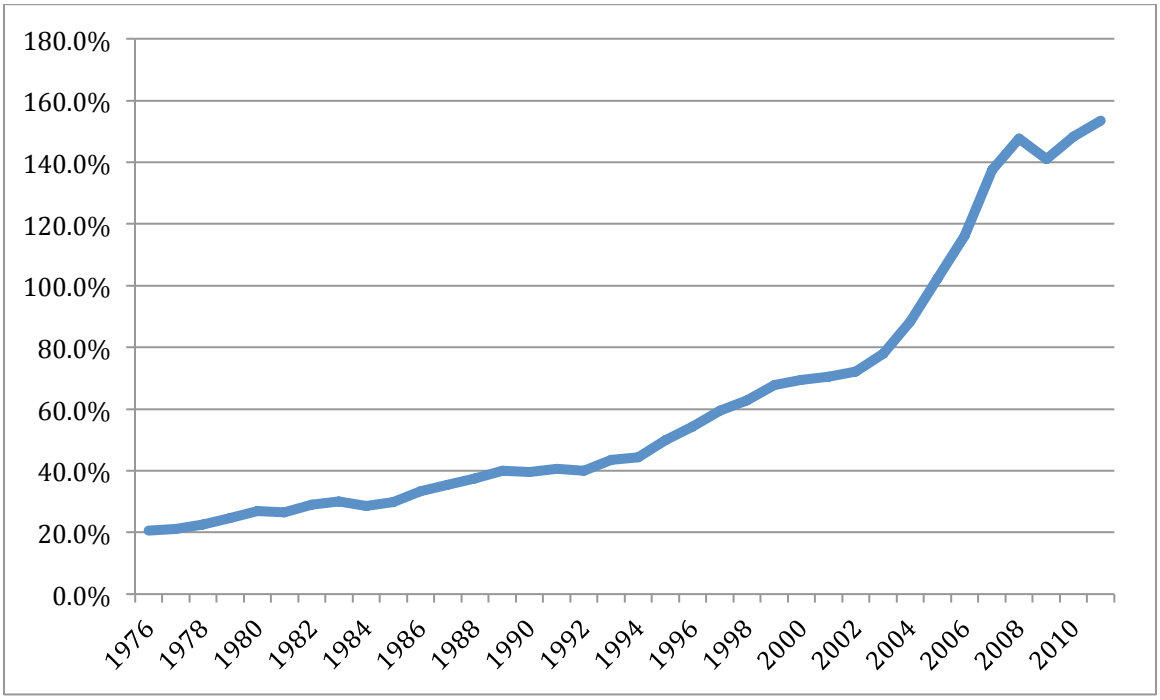

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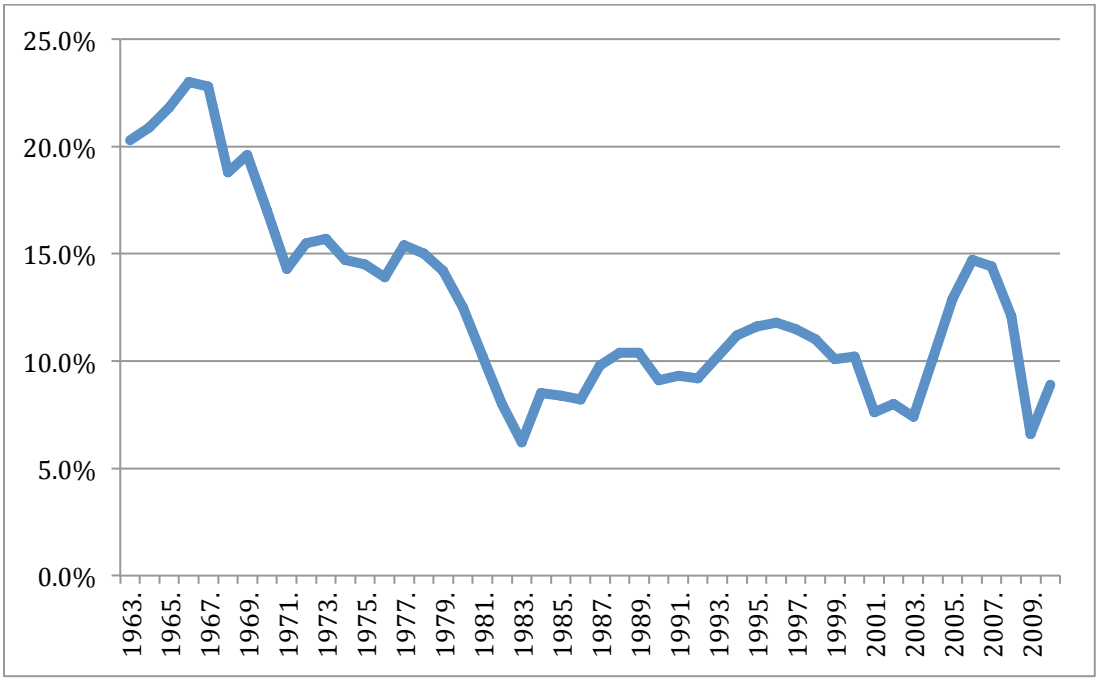
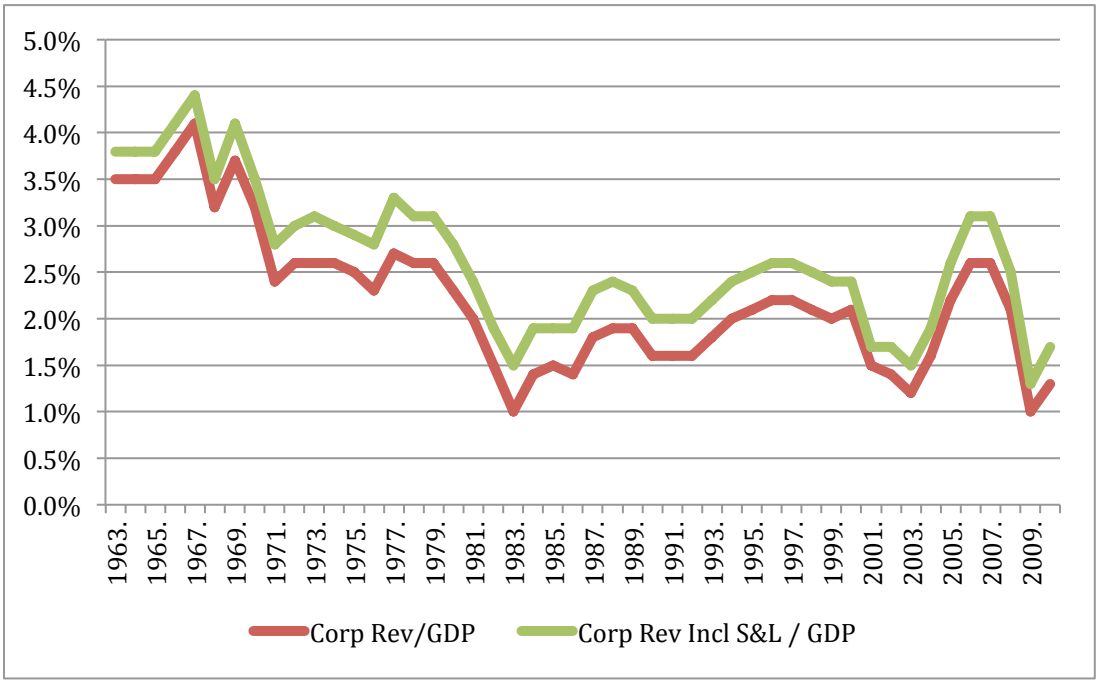
Figure 4: Federal Corporate Tax Revenue / Total Federal Receipts



Source: Economic Report of the President, Table B-80

Figure 5: Corporate Tax Revenues as a Share of GDP



Source: Economic Report of the President, Tables B-1, B-80, and B-85

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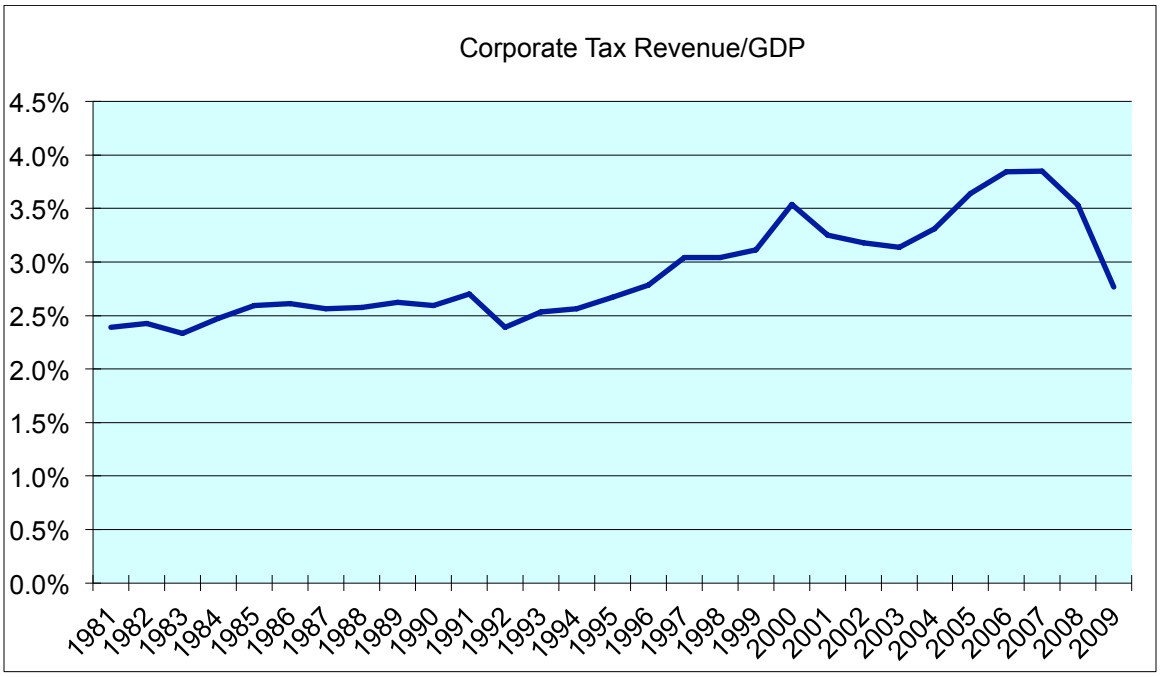
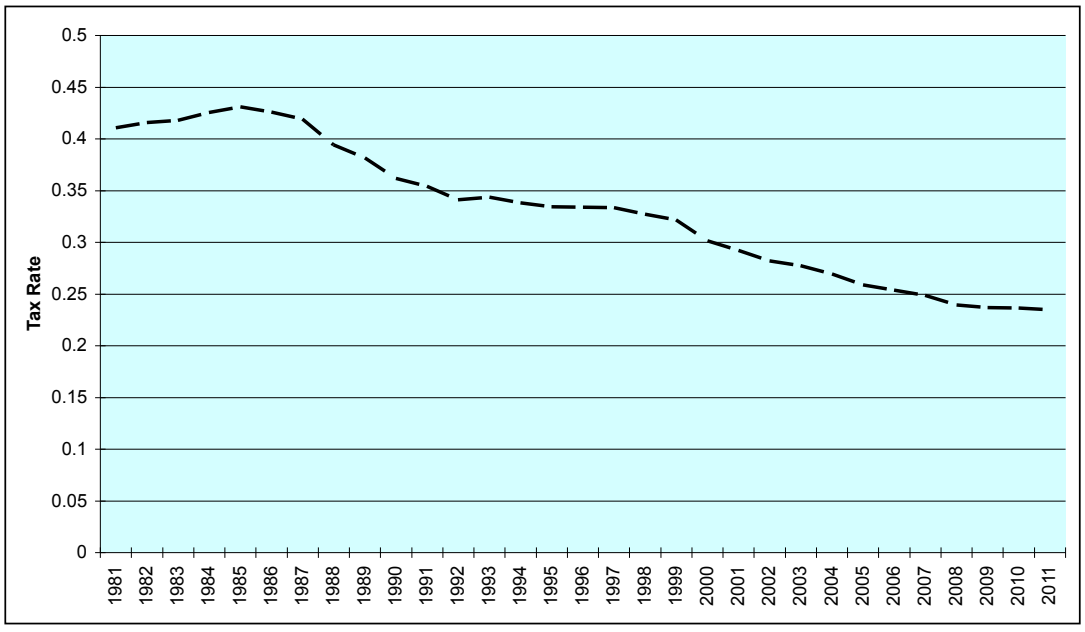
Figure 6: Corporate Tax Revenues/GDP, OECD Countries
(average for all OECD countries)



Source: OECD

Figure 7: Statutory Tax Rates of Central Government, OECD Countries
(average for all OECD countries)



Source: OECD

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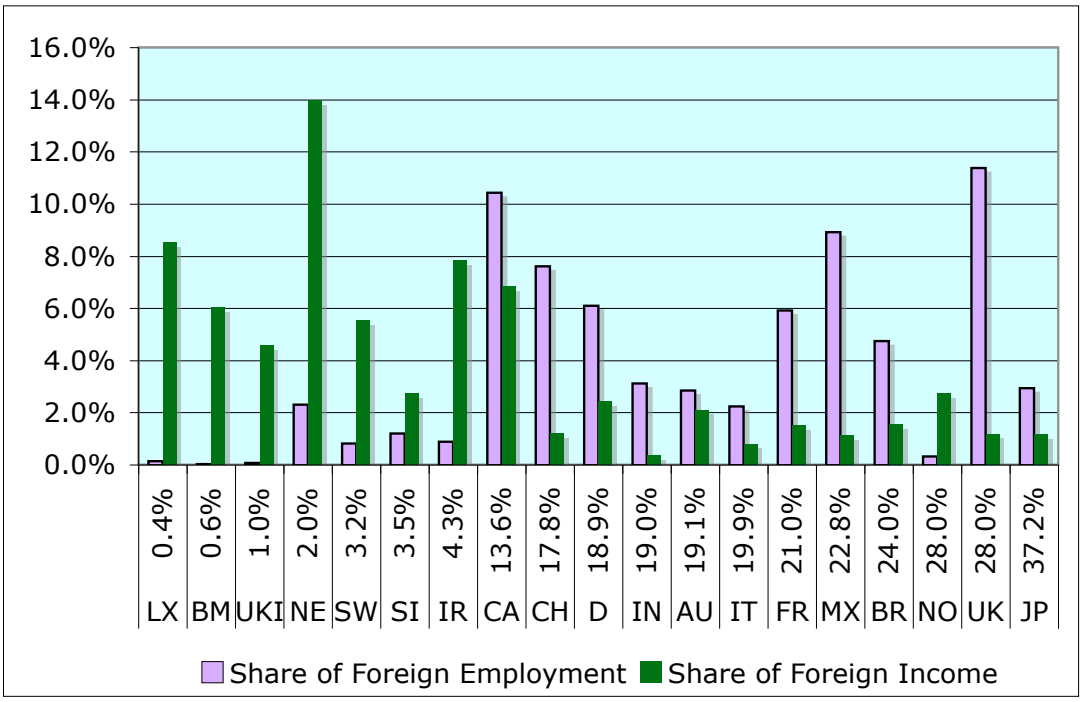
Figure 8: Share of Total Foreign Income and Employment by Location, 2008
(Data are sorted by the effective tax rate of all U.S. affiliates in each location.)



Note: These data are from the U.S. Bureau of Economic Analysis. The data show only foreign affiliates of U.S. multinational firms. Locations are included in the figure if they have either 2% or more employment *or* income shares. The effective tax rate is calculated as actual taxes paid relative to pre-tax net income. Effective tax rates for Norway and the UK are capped at the statutory tax rate. Destinations included are Luxembourg, Bermuda, the UK Caribbean Islands, the Netherlands, Switzerland, Singapore, Ireland, Canada, China, Germany, India, Australia, Italy, France, Mexico, Brazil, Norway, the U.K., and Japan.

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