

Rough Draft
Comments Welcome

**LESSONS FROM THE STUDY OF TAXES AND THE BEHAVIOR OF US
MULTINATIONAL CORPORATIONS**

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This paper is being prepared for the “New Zealand Tax Reform – Where to Next?” Conference to be held at Victoria University of Wellington in Wellington, New Zealand on February 11-13, 2009. Much of this paper reviews work of mine with Harry Grubert. None of this work would have come to fruition without his intellectual guidance and expertise in international taxation.

Introduction

Until recently, the richest datasets available for the study of how taxes affect the behavior of multinational corporations were those that provided information on the activities of US companies.¹ Public and confidential data sources have allowed researchers to investigate how corporate taxes impact where U.S. firms invest, how that investment is financed, and how countries compete to attract U.S. foreign direct investment among other topics. The availability of comprehensive data sets over a relatively long period of time has also allowed researchers to observe how the behavior of U.S. firms has changed as globalization has intensified. This paper reviews recent research on how the global activities of U.S. multinational corporations respond to taxation. While the typical review tends to focus on contributions to the academic literature, the goal of this paper is to focus on how the evidence gleaned from US data sources can help guide corporate tax reform.² The present paper is a work in progress. I have likely missed important papers and important lessons. I look forward to comments that will help make this paper more useful to policy makers and analysts.

I draw seven lessons from the study of the activities of U.S. multinational corporations (MNCs). First, the real assets of US MNCs are internationally mobile and the location of these assets has become more sensitive to differences in tax rates over time. Second, the evidence suggests that the same phenomena holds for intangible capital which is typically the source of a multinational's competitive advantage abroad. The third lesson is that tax avoidance through income shifting seems to have gotten worse in recent years, at least for US MNCs. Fourth, host country governments are engaged in tax

¹ Reference recent work using German and other European datasets.

² For excellent literature reviews see Hines (1997 and 1999) and Gordon and Hines (2002).

competition to attract US investment and this competition has intensified over time. But host country governments are not the only players in the tax competition game. The fifth lesson is that home countries and multinationals themselves are also important players in the “race to the bottom”. US MNCs have successfully used new “self-help” techniques made possible by recent U.S. legislative changes to lower their effective tax burdens abroad.

The last two lessons more directly address issues of tax reform. The sixth lesson is that policy makers cannot isolate reform of international taxation from the rest of the tax system. Any change to the corporate statutory rate impacts US and foreign multinationals, domestic corporations as well as domestic savers. A relatively high corporate statutory tax rate, for example, increases the attractiveness to U.S. savers of investing in foreign companies instead of domestic ones. Finally, any analysis of how different tax reforms will impact home country multinationals must take into account the current tax system as well as important details of any new system. For example, studies of US MNCs suggest that moving from the current US tax system in which the worldwide profits of home country corporations are taxed to a territorial tax system in which only profits earned at home are taxed could actually raise revenue relative to the current system and make investment abroad in low-tax countries less attractive.

The paper is organized around these seven lessons. However, before turning to the lessons, the paper begins with a short review of the current U.S. system for taxing the international income of U.S. corporations. The remainder of the paper discusses lessons that can be drawn from findings from recent research on US MNCs. The final section concludes.

A brief review of the U.S. system for taxing international income

It is useful to review the basic rules of the U.S. tax system towards international income before turning to findings from studies that have investigated how MNC behavior respond to these rules. Under the current U.S. system both the domestic and foreign earnings of U.S. corporations are subject to U.S. taxation. If foreign operations are organized as subsidiaries (i.e., they are separately incorporated in the foreign country), then active business profits are not generally taxed at home until they are remitted to the U.S. parent corporation. All repatriated foreign income is taxed, including not only dividends but also royalties, interest, and other foreign payments.

To alleviate the double taxation of foreign source income, the U.S. allows firms to claim credits for income taxes paid to foreign governments against U.S. tax liability on foreign source income. A limitation on the credit prevents American firms from using foreign tax credits to reduce U.S. tax liabilities on income earned at home. If a firm's foreign tax payments exceed the limitation on the credit, the firm pays no residual U.S. taxes on income repatriations from low-tax countries.

Two steps are important in the foreign tax credit limitation calculation. First, the foreign income is separated into baskets to restrict cross-crediting, i.e., credits flowing from highly taxed income to shield income that has been lightly taxed. Before the 2004 American Jobs Creation Act (AJCA), the three significant income baskets were general nonfinancial active income, financial services income, and passive income. The AJCA effectively collapsed the baskets into two, active income and passive income. Within any basket, excess credits generated by one type of income (e.g., dividends) can flow over to

other income in the basket (e.g., royalties) and shield that income from any residual U.S. tax.

In the second step of the foreign tax credit limitation calculation, parent overhead expenses such as interest are allocated to each basket to calculate the net foreign income on which the credit can be claimed. This only affects companies if they cannot credit all the foreign taxes they have paid. If a company has excess credits, allocation of expenses to foreign income increases U.S. tax by reducing allowable credits. If the company does not have excess credits, or is currently not repatriating income, the allocations have no effect on current U.S. tax liability. Allocations of overhead expenses can be very large and play an important role reform options such as moving to a territorial tax system.

Under the current system, certain types of foreign income do not qualify for deferral and are instead taxed upon accrual under what are generally referred to as Controlled Foreign Corporation (CFC) rules. In general, these “anti-tax avoidance” provisions deny deferred taxation on foreign subsidiary income that is considered abusive or ‘tainted’. Tainted income includes passive portfolio income and the payment of interest, dividends and royalties from one CFC to a CFC in another jurisdiction.

New tax planning techniques

In 1997, regulations introduced ‘hybrid entities’ which allowed U.S. companies to avoid the current tax under the CFC rules on intercompany payments like interest and royalties. These regulations are sometimes referred to as ‘check the box’ because they gave companies the freedom to either identify an entity as a separate corporation or to ‘disregard’ it as simply as the unincorporated branch of another corporation by simply

checking the box on a tax form. Hybrid entities are business operations that are regarded as corporations by one country while being an unincorporated branch to another.

Consider, for example, the tax advantages of setting up a finance affiliate in a tax haven. The MNC injects equity into the tax haven company which then lends to a high-tax subsidiary. The high-tax subsidiary pays interest which is deductible against local taxable income to its tax haven affiliate. This set up was not tax advantaged prior to 1997 since the interest payment would have been taxed at the U.S. rate when paid.

After 1997, the MNC could report to the U.S. Treasury that the high-tax affiliate is really an unincorporated branch of the tax haven company from which it has borrowed. The affiliate is still regarded as a corporation by the high-tax host country which grants a deduction for the interest going to the tax haven but the transaction is invisible to the U.S. Treasury, which regards the combined tax haven-high-tax operation as one consolidated corporation. The interest payment therefore escapes the CFC rules and the company can defer the income in the tax haven. The interest is not taxed anywhere.

Why would a home country like the United States allow this kind of method of stripping income from a high-tax location to a tax haven? It depends on its judgment on the consequences of lowering the tax burden on US companies in the high-tax location. If its home-based companies now shift to the high-tax location from foreign low-tax locations, from Ireland to Germany for example, both the world and the home country are better off. Capital has moved to a location with a higher pre-tax return.³

³ Another way in which home countries increase the competitiveness of their companies is by not requiring them to allocate overhead expenses to foreign income. Thus a company can borrow at home and invest equity in a low-tax jurisdiction, thereby receiving a tax deduction for the interest while paying little or no tax on its earnings. Among the OECD countries, only the United States makes a serious effort to require interest allocations, and that is incomplete because it operates only through the foreign tax credit limitation.

The high-tax host country could resist this income stripping strategy by enforcing ‘thin capitalization’ rules which limit the extent to which a company can leverage itself up, particularly when the interest is paid to related parties offshore. But it may not choose to do so as a way of discriminating in favor of internationally mobile companies that can take advantage of these income shifting strategies. Tax competition can operate along many dimensions, not just by lowering statutory corporate tax rates or granting investment credits.

Hybrid entities can also be used to route dividends to a holding company in a country with a favorable holding company regime, one that exempts dividends and has an extensive tax treaty network assuring low withholding taxes on dividends. MNCs frequently find it convenient to organize their foreign investments through such holding companies. Without the use of a hybrid entity, the intercompany dividends would generally be subject to current U.S. tax. However, hybrids are invisible to the U.S. Treasury and thus can be used to make either intercompany payments like interest and royalties that are deductible from host company taxable income, or dividends paid out of after-tax equity income.

Hybrids may also be used to shift income from intellectual property like patents to tax havens by making the intercompany royalty payments invisible. The tax haven entity can engage in a cost sharing agreement whereby it pays for part of the parent’s R&D project. This gives it the right to license the resulting technology to other foreign subsidiaries in exchange for royalty payments. Because the appropriate cost sharing payments and royalties are very uncertain, the MNC can attempt to underprice the former and overprice the latter, leaving a large amount of income in the tax haven. The royalty

payments by the high-tax affiliate are not subject to the anti-abuse CFC rules because the tax haven entity and the high-tax affiliate can be declared as one consolidated incorporated subsidiary.

Hybrid *securities* are another planning device that can sometimes achieve the same results as hybrid entities. These instruments are regarded as debt by the host country and equity by the country to which income payments are made. They exploit the difficulties that tax authorities have in determining the distinction between tax deductible debt and taxable equity. These hybrid securities are particularly effective in saving taxes when the receiving country employs a dividend exemption (a 'territorial' system). Examples are the Netherlands, France, and Canada which exempt dividends paid from an active direct investment abroad. Thus a Canadian company can capitalize an operating subsidiary in the United States with a hybrid security and receive payments that are deductible in the United States but exempt at home. Once again the income completely escapes taxation at the corporate level. Hybrid securities can be combined with hybrid entities to ensure a deduction in the paying host country, no tax in the receiving foreign country and no tax by the United States.

I turn next to the seven lessons.

Lesson 1: Real capital is mobile and has become more sensitive to differences in host country tax rates over time

An important concern for policy analysts is how any change to the system of taxing cross-border income will affect the global allocation of capital. To address this question it is necessary to know how readily international capital flows respond to changes in the after-tax rates of return at home and abroad. Work on this question using

data from the 1980s suggests that the location decisions of US MNCs are responsive to tax differences (see Grubert and Mutti 1991 and Hines and Rice 1994).⁴

Grubert and Mutti (1997) were the first to suggest that the sensitivity of U.S. investment abroad to after-tax rates of return abroad may have increased in the 1990s. Altshuler, Grubert, and Newlon (2001), hereafter AGN, examined whether the distribution of U.S. foreign direct investment became more sensitive to inter-country differences in tax rates between 1984 and 1992. Interest in this question stems from two factors. First, production appears to have become more globally integrated over this time period. In addition, starting in the 1980s, corporate taxes fell in several countries including Canada, the United States, the United Kingdom, France, Belgium, and the Netherlands.

To estimate the sensitivity of foreign direct investment to differences in after-tax returns across countries, AGN examine data from US Treasury tax files on real capital (inventory, plant, and equipment) of foreign manufacturing affiliates of U.S. MNCs for 1984 and 1992. There are two advantages to studying data that spans more than a single year. First, researchers can control for unobservable time-invariant characteristics, such as risk and political instability, which influence investment and are specific to individual countries. In addition, using more than one year of data allows for an econometric test of whether the responsiveness of investment to taxes changed over the time period spanned by the data.

To measure the sensitivity of location decisions to host country tax rates, AGN regress a measure of real capital held in each of our sample countries on tax and non-tax

⁴ See, for example, Grubert and Mutti (1991 and 2000), Hines and Rice (1994), Altshuler, Grubert, and Newlon (1998), and most recently, Altshuler and Grubert (2004).

characteristics of countries. These regressions yield an elasticity that measures the sensitivity of the demand for capital in a country to changes in after-tax returns. The elasticity estimates suggests that a one percent increase in after-tax returns led to an almost 3 percent increase in the real capital stock of manufacturing affiliates in 1992 and a 1.5 percent increase in 1984. This significant increase in elasticities suggests that the allocation of real capital abroad became more sensitive to differences in host country taxes between 1984 and 1992. These results are consistent with the view that technological advances along with the loosening of trade restrictions and capital controls has increased the ease with which capital can cross national borders. As a result, different locations have become closer substitutes for the location of production.

Altshuler and Grubert (2004) extend this work. They make use of data from 1992, 1998, and 2000 to explore whether firms have become even more sensitive to differences in tax burdens abroad. While the results from the econometric work are not conclusive, they suggest that in recent years local taxes have become a more significant factor for explaining differences in the distribution of real assets abroad. The results suggest that the capital demand elasticity increased from about 3 to 4 between 1992 and 2000. Statistical tests, however, reject that these elasticities are significantly different from each other. Work with more recent data may show a statistically different and larger estimate of the elasticity. While policy makers seem cognizant that tangible capital is mobile, these estimates contribute important parameters to the debate.

Lesson 2: The mobility of intangible capital seems to have increased over time

U.S. direct investment abroad is strongly motivated by the exploitation of intangible assets like patents and trademarks which are typically developed in the United States. The ability to shield taxes on royalties under the US foreign tax credit system and income shifting opportunities create an incentive to exploit intangible assets developed by the parent corporation abroad. Even though part of the return on intangibles abroad is paid out in royalties to the parent, the evidence suggests that the foreign subsidiary retains a significant portion.

There is little empirical evidence on the impact of taxes on the location of intangible capital. Although the returns to intangible assets are not fully captured in royalties, these payments can be used as an indication of where intangible assets are being invested. Data in the Bureau of Economic Analysis (BEA) Benchmark Surveys of U.S. Investment Abroad in 1994 and 1999 suggest that low-tax countries are becoming much more important destinations for U.S. produced intangible assets. Specifically, Altshuler and Grubert (2004) report that the share of total affiliate royalties accounted for by Ireland and Singapore doubled between 1994 and 1999. The share of total royalties paid by subsidiaries in these locations increased from about 9 percent to 21 percent, and the share of royalties paid to the U.S. parent increased from about 8 percent to 20 percent. In 1999, royalties paid by Irish affiliates exceeded royalties paid by German or United Kingdom affiliates, and total royalties paid by Singapore affiliates were only 25 percent lower than royalties paid by Japanese affiliates.⁵

⁵ Detailed data on royalty payments by subsidiaries from the 2004 BEA Benchmark Survey are not yet available. The U.S. Direct Investment data published annually in the Survey of Current Business, however, does contain information on royalty payments from U.S. affiliates to U.S. parents. The story has not changed. Ireland and Singapore account for almost 20 percent of total royalties. Royalties from Irish affiliates remain larger than those from German and United Kingdom affiliates, and royalties from Singapore affiliates are still significant relative to those from Japanese affiliates (royalties paid from Singapore affiliates are about two-thirds as large as those paid by Japanese affiliates).

Recent work by Mutti and Grubert (2007) suggests that there has been substantial movement of intangible assets from the United States to foreign countries. The new tax planning techniques discussed above come seem to have played an important role in this story. The “check the box” regulations have made it easier for U.S. firms to set up hybrid entities in low-tax locations like Ireland and the “pure” tax havens of Bermuda, the Cayman Islands and Luxembourg. Once a low-tax hybrid is established, the U.S. parent can set up favorable cost sharing agreement.

Mutti and Grubert (2007) find that the importance of cost sharing payments increased between 1996 and 2002, relative to both royalties and earnings and profits. They report that “cost sharing payments from affiliates in Ireland and from tax havens are particularly significant, both economically and statistically (p.28).” This is the first evidence that U.S. parents are able to relocate intangible assets abroad without actually carrying out research and development in affiliates. Cost sharing agreements have enabled US firms to place a greater share of the return to U.S. research and development abroad in low-tax locations. The migration of intellectual property abroad is a hot topic today in the United States and likely to generate lively debate when the country begins to focus on international tax reform.

Lesson 3: Income shifting is getting worse

Opportunities for cross-border shifting are an important feature of both worldwide and territorial tax systems. The observation that reported profitability of US MNCs is much higher in low-tax countries than high-tax countries, suggesting tax induced income shifting, goes back a long way, at least to Grubert and Mutti (1991). Grubert (2003)

suggests that the location of intangible income and the allocation of debt among high- and low-tax countries seem to account for all of the observed differences in profitability across high- and low-statutory tax countries. These differences in profitability could be attributable to the shifting of debt, and therefore interest deductions, to high-tax jurisdictions, the manipulation of transfer prices for goods and services, or the failure to pay adequate royalties for intellectual property contributed by the parent company.

There is some evidence from US data sources on the extent to which firms shift financial income to lower their tax burdens. Interest stripping is likely the easiest way for firms to minimize worldwide tax payments. Altshuler and Grubert (2002) present evidence from the Treasury tax files that the financial structure of MNCs is influenced by local tax rates. In a regression with debt-to-asset ratios as a dependent variable, they show that affiliate leverage is a highly significant negative function of local statutory tax rates.

There is also suggestive evidence that income shifting is getting worse. Altshuler and Grubert (2005), on the basis of a comparison of Treasury data for manufacturing subsidiaries in 1996 and 2000, indicate that income shifting has increased. For example, in identical regressions that used the ratio of pre-tax earnings and profits to sales as the dependent variable, the coefficient for the host country statutory rate was -0.16 in 1996 and -0.26 in 2000. The -0.26 coefficient implies a profit ratio in a country with a 10 percent tax rate that is almost twice as large as one with a 40 percent statutory tax rate. It is important to note that this evidence only pertains to profitability differences among foreign countries. At this point, we do not know whether the high profits in low-tax

countries constitute income shifted from another foreign country or income shifted from the United States.

A recent paper by Michael McDonald updates the original Grubert regression analysis. McDonald (2008) presents results from the Treasury tax files that show the negative correlation between profit margins and the statutory tax rate, controlling for other non-tax factors, has become even stronger in 2002

Lesson 4: Governments are engaged in tax competition and it has likely intensified over time

Table 1 presents the means and standard deviations of average effective tax rates for U.S. manufacturing subsidiaries in 58 countries. Host country average effective tax rates are calculated by dividing the total income taxes paid by U.S. CFCs in the manufacturing sector by their total earnings and profits (only CFCs with positive earnings and profits are included in the totals). The global means for each year presented in the table are an average of the effective tax rates in all 58 countries weighted by the number of CFCs in each country in 1990. The data come from the Treasury tax files.

Table 1 shows that the global average effective tax rate faced by US manufacturing parents has fallen by about 12 percentage points over the period shown. It is also interesting to note that the distribution of worldwide tax rates has become tighter in the last decade (the standard deviation has fallen and increased relative to the mean) indicating some convergence in effective tax rates. As mentioned above, Altshuler, Grubert, and Newlon (2001) used these data to explicitly test whether the location of capital invested abroad by manufacturing affiliates of U.S. MNCs became more sensitive to differences in host country effective tax rates between 1984 and 1992.

In research using the same tax return data for 1984 through 1992, Grubert (2001) looked for changes in the behavior of both taxpayers and governments. Among other questions, he asked whether the behavior of governments during this period suggests more tax competition. Grubert found that smaller, poorer, and more open countries lowered their tax rates the most between 1984 and 1992. This is consistent with tax competition since one would expect that these countries would be most affected by the increased mobility of capital.

Altshuler and Grubert (2004) focus on the period from 1992 to 2000. Notice that the data shows a relatively large drop in effective tax rates between 1998 and 2000. While tax competition between countries may be responsible for part of the drop in effective tax rates since the 1990s, the growth of hybrids (and thus company responses) may play an important role in explaining the most recent decreases in effective tax rates. For this reason, Altshuler and Grubert look at changes in country effective tax rates between 1992 and 1998 separately from the changes between 1998 and 2000.

Altshuler and Grubert's results suggest that tax competition is the driving force behind the decrease in country effective tax rates between 1992 and 1998. Countries that lost shares of U.S. manufacturing real capital prior to 1992 cut their rates the most over this period. Further, smaller countries and those with high initial average effective tax rates experienced larger declines in effective tax rates relative to the average.

Altshuler and Grubert find, however, that companies may not need tax competition to lower effective tax burdens abroad. They report that the evolution of country effective tax rates between 1998 and 2000 seems to be driven by company rather than country behavior. Unlike their findings for the 1992-1998 period, changes in the country's capital

share, the initial level of the country's effective tax rate, and whether the country is small do not explain differences in declines in effective tax rates over this period. However, the statutory tax rate, which measures the incentive to use self-help techniques to lower effective tax burdens, is positively correlated with decreases in effective tax rates between 1998 and 2000. This brings us to the next lesson.

Lesson 5: There are three players in tax competition --- host country governments, home country governments and multinational corporations

Most studies of tax competition and the “race to the bottom” focus on potential host countries competing for mobile capital, neglecting the role of corporate tax planning and of home governments that facilitate this planning. This neglect reflects the narrow view frequently taken of the policy instruments that countries have available in tax competition. But high-tax host governments can, for example, permit income to be shifted out to tax havens as a way of attracting mobile companies. Home countries will cooperate in this shift if their companies' gain is greater than any reduction in the domestic tax base. Altshuler and Grubert (2005) use various types of U.S. data to identify the role of the three parties (host governments, home governments and MNCs) in the evolution of tax burdens on U.S. companies abroad from 1992 to 2002. This period is of particular interest because, as mentioned above, the United States introduced regulations in 1997 that greatly simplified the use of more aggressive tax planning techniques.

Subsidiary-level data from the Treasury tax files confirms the role of the companies and the cooperation, or nonresistance, of home and host countries in lowering the cost of investment abroad. Controlled foreign corporation (CFC) effective tax rates

after 1997 were much less closely correlated with the local statutory corporate tax rate than prior to 1997, suggesting that some profitable companies in high-tax locations were in a position to take advantage of the new tax planning opportunities. Furthermore the disparity of CFC profitability between high-tax and low-tax countries widened substantially after 1997. This might have happened, for example, if parents use one of the new tax planning strategies in which a highly profitable operation formerly incorporated in a high-tax location ‘disappears’ into a low-tax sibling that has stripped income out of it. In fact, the tangible capital reported by CFCs incorporated in tax haven locations such as Bermuda and the Cayman Islands grew very rapidly after 1996.

The surveys of direct investors by the Bureau of Economic Analysis (BEA) in the U.S. Commerce Department show a very large increase in intercompany payments and in the income of holding companies abroad after 1997. This presumably resulted from the new planning structures facilitated by the 1997 Treasury regulations. In interpreting this growth in intercompany income it is important to distinguish between deductible payments like interest and nondeductible payment like dividends paid out of after-tax income. Using two different BEA series, Altshuler and Grubert (2005) conclude that approximately 40 percent of the growth of intercompany income was in the form of payments deductible in the host country (and presumably not taxable in the receiving country). This suggests that corporations saved about \$7 billion in taxes in 2002 compared to what they would have paid if they continued to behave the same way as in 1997. This is about 4 percent of foreign direct investment income, a substantial reduction in such a short period. This work provides evidence of the empirical significance of tax planning strategies involving the use of tax havens.

Lesson 6: The taxation of international income cannot be isolated from the rest of the tax system

In an open economy, the corporate and personal tax systems cannot be considered separately. Corporate tax rates have been coming down around the world and the United States now has one of the highest statutory rates. Lowering the rate in a revenue neutral fashion could be accomplished by increasing the tax on capital at the personal level or introducing a VAT. Decreasing the US statutory rate would greatly enhance the competitiveness of the domestic operations of U.S. corporations and could be done in a way that keeps the average tax burden on their foreign operations unchanged. This could be accomplished by taxing all income of US corporations abroad as it is earned, keeping the foreign tax credit, and ending the requirement to allocate any home country expenses abroad (see Grubert and Altshuler 2008). A lower U.S. corporate tax burden would increase the attractiveness of investing in the United States by foreign companies. That said, taxing all profits abroad in the United States when they are earned (ending deferral) may lead US firms to move their headquarters abroad.

Lowering the corporate rate would tend to reduce a behavioral distortion that has been overlooked until recently by researchers, the ultimate U.S. saver's choice between investing in U.S. and foreign companies. U.S. shareholders have the opportunity to enjoy lower foreign corporate tax rates by investing directly in foreign companies. A recent paper by Mihir Desai and Dhammika Dharmapala finds evidence that the U.S. corporate tax can affect the behavior of U.S. savers.

Desai and Dharmapala (2008) start with the observation that investors can add foreign investments to their portfolio through two channels: indirectly through buying shares in U.S. multinationals and directly through the purchase of shares in foreign corporations. Consider the taxes on an investment in a U.S. MNC. The return to investing in a U.S. MNC is subject to the host country tax, any residual U.S. tax, and individual level taxes on dividend income. The return to investing in a foreign corporation is subject to the host country tax and individual level taxes on dividend income. U.S. savers can avoid any burden of the repatriation tax by channeling investment directly through foreign corporations. Desai and Dharmapala use data on US outbound foreign portfolio and domestic investment to test whether the composition of US outbound capital flows reflect efforts of U.S. investors to get around home country tax regimes. Their analysis indicates that a 10 percent decrease in a foreign country's corporate tax rate increases US investors' equity foreign portfolio holdings by 21 percent. These results suggest that the residual U.S. tax on corporate investment abroad does influence the behavior of U.S. investors by biasing capital flows to countries with low corporate tax rates to foreign portfolio investment.

Lesson 7: The starting point for tax reform is the current system

The current system must be the starting point for the analysis of any tax policy change. Further, when considering tax reform the details of the new system must be specified to understand the welfare gains or losses of any change. While this seems like an obvious observation, discussions of reform often miss this basic point and end up being beside the point.

Consider, for example, the current US system for taxing international income. At first glance, one might predict that residence tax systems, like the one employed by the United States, would dampen the tax incentive to invest abroad in low-tax countries. This contrasts with the tax incentives of firms subject to territorial tax systems. These firms face the local tax rate when investing abroad and the home rate when investing at home. As a result, one might expect that switching from a residence to a territorial system would lead to a substantial reallocation of U.S. investment worldwide.

Altshuler and Grubert (2001) study how the location decisions of U.S. MNCs may change if the U.S. were to adopt a system that exempts foreign dividends from home taxation and find some surprising results. Altshuler and Grubert start by comparing the U.S. allocation of foreign direct investment (FDI) in manufacturing across low-tax versus high-tax jurisdictions with that of two major dividend exemption countries, Canada and Germany, to investigate whether the distribution of Canadian and German FDI is more skewed toward low-tax countries. Although they find that U.S. investment in Asia is more skewed towards the low-tax countries, the picture that emerges for Europe is mixed. Compared to the U.S., Canadian investment in the European Union is heavily weighted towards Ireland (a low-tax country). Whether U.S. firms would shift towards a similar regional distribution in Europe under a territorial tax system is an open question.

Altshuler and Grubert calculate effective marginal tax rates on investment abroad to quantify the burden of U.S. taxes on the typical investment in a low-tax affiliate under the current system and under dividend exemption. The calculations show that effective tax rates may actually increase under dividend exemption. What matters is how the new dividend exemption system treats allocations of expenses, the ratio of intangible to

tangible assets, and the foreign tax credit position of MNCs. In other words, dividend exemption will create winners and losers among current MNCs.

Finally, the researchers use Treasury data from the tax returns of MNCs to gauge how location decisions will be affected by a move towards dividend exemption. Taken together, the paper presents no consistent or definitive evidence that location decisions would be significantly changed if the U.S. were to adopt a dividend exemption system. Grubert (2001) looks at a related question: how would U.S. tax revenues change if the U.S. were to adopt a dividend exemption system. Again the results are surprising and depend on the allocation rules enacted with dividend exemption. Exempting dividends from U.S. taxation would likely raise revenue under certain allocation rules. With rules more like those imposed today, dividend exemption loses revenue.

The lesson is that it is fundamental to understand both the starting point for reform and the form that reform will take. Without this information, it is impossible to make judgments on whether a change is better than the current system.

Conclusions

Recent studies of how U.S. MNCs respond to home and host country tax systems paint a picture of increasing responsiveness to tax policy. Real and intangible capital has become more mobile, income shifting has gotten worse, tax planning has become more sophisticated and tax competition has intensified. Tax policies that affect corporate decisions can also influence portfolio decisions of resident investors. As globalization has spread and global operations become more connected, the taxation of international income has become increasingly complex.

The policy question, of course, is how to reform corporate tax systems. Given the increased sophistication of tax planners, the mobility of capital and even corporate headquarters, a reasonable question is whether there should even be a separate corporate tax. Putting aside options for eliminating the corporate tax, the lessons from the research on U.S. MNCs suggest that a simple tax system with low tax rates and a broad base may best fit the world economy. Lower tax rates generate fewer distortions and decrease the gains to tax planning. Broadening the base by including all income regardless of source and taxing it currently is one possibility. Grubert and Altshuler (2008) propose such a system for the United States. However, much more work needs to be done to understand all of the implications. This type of reform, however, may be exactly what the lessons discussed in this paper suggest.

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Table 1
Average Effective Tax Rates for U.S. Manufacturing Corporations

Year	Average Effective Tax Rate	Standard Deviation
1980	0.33	0.85
1982	0.34	0.98
1984	0.34	1.03
1986	0.32	1.05
1988	0.31	1.09
1990	0.26	0.89
1992	0.25	0.86
1994	0.22	0.72
1996	0.23	0.79
1998	0.24	0.77
2000	0.21	0.67

Notes: The effective tax rate is weighted by number of Controlled Foreign Corporations in each country in 1990. Data from Treasury tax files.