

Lessons from the Study of Taxes and the Behavior of U.S. Multinational Corporations

Rosanne Altshuler
Urban-Brookings Tax Policy Center

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Tax Policy Center

Urban Institute and Brookings Institution

www.taxpolicycenter.org

Goal of Paper

- Review recent research on how global activities of US MNCs respond to taxes
 - **Focus is on how evidence gleaned from studies can guide tax reform**
- Why US MNCs?
 - **Until recently, richest datasets available provided information on US MNCs**
 - **Relatively long period over which data has been available allows comparison of responsiveness over time**



Lessons from Study of US MNCs

1. Real capital is quite sensitive to differences in tax rates across countries and this responsiveness has increased over time
2. Intangible capital is internationally mobile and this mobility seems to have increased over time
3. Income shifting is getting worse
4. Tax competition between host countries is evident and has intensified



Lessons from Study of US MNCs

5. There are three parties in the tax competition game -
-- host countries, home countries, and companies
6. The taxation of international income cannot be isolated from the rest of the tax system
7. The starting point for tax reform is the current system



Background on US System

- Residence or worldwide system
 - **But lessons apply to territorial and hybrid systems**
- All repatriated income taxed
 - **dividends, interest, royalties and other foreign payments**
- Two important features
 - **foreign tax credit**
 - **deferral**



Foreign Tax Credit

- Limitation prevents firms from using credit to reduce US tax liability on income earned at home
 - **Foreign taxes greater than limitation puts you in “excess credits” --- have more credits than you can use**
 - **Foreign taxes less than limitation puts you in “excess limitation” --- pay residual US tax on repatriations**



Foreign Tax Credit

- Foreign income separated into baskets to prevent cross-crediting
 - **Two baskets: passive and active income**
 - **Within a basket, excess credits from one type of income (e.g. dividends) can flow over to other income (e.g. royalties) and shield that income from any residual U.S. tax**



Deferral

- Active business profits of controlled foreign corporations (CFCs) are not generally taxed at home until they are repatriated
- Certain types of income do not qualify for deferral:
 - **Passive portfolio income; payment of interest, dividends, and royalties from one subsidiary to another**



New Tax Planning Strategies: Use of Hybrid Structures

- What is a hybrid?
 - **An entity that is incorporated from the host country point of view and a branch from the US point of view (or vice-versa)**



New Tax Planning Strategies: Use of Hybrid Structures

- What is the advantage of using hybrid?
 - **Allows US companies to avoid the current US tax on inter-company payments like interest, royalties, and dividends**
 - **A hybrid entity makes this payment invisible to the US because it all occurs within one combined entity**



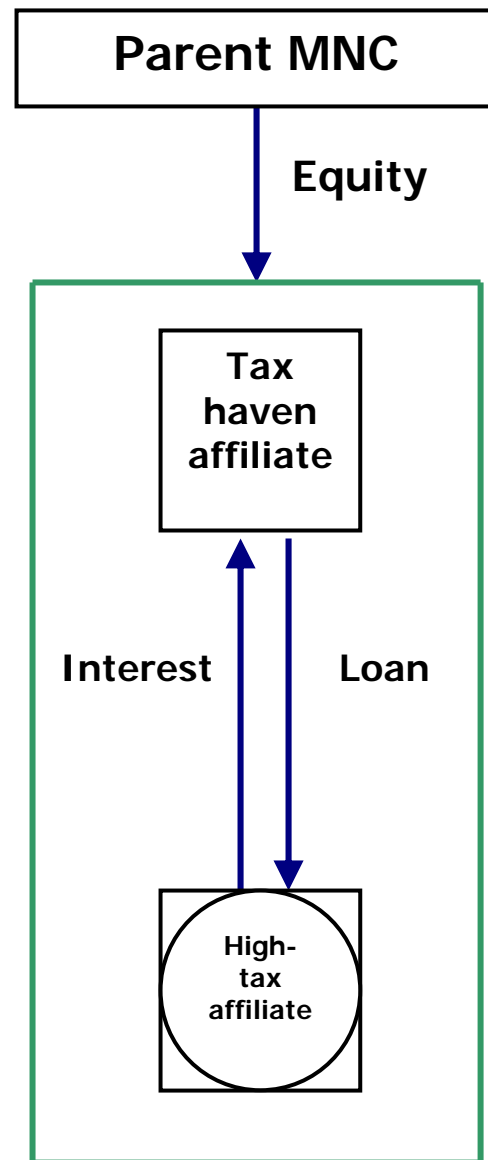
Check the Box

- Setting up hybrids simplified by 'check the box' in 1997
 - **All the company had to do to create a "disregarded" entity was check the box on a tax form**
 - **Once the box is checked, the entity disappears from the US view**



Hybrid entities

- Parent injects equity into tax haven
- Tax haven lends to high-tax affiliate
- High-tax affiliate makes interest payments
 - Interest would be taxable currently under US CFC rules
- But, check-the-box on the high-tax affiliate
 - Transaction invisible to Treasury which regards combined tax haven - high-tax operation as a consolidated corporation
- Result
 - Interest escapes current U.S. taxation
 - Interest deduction in high-tax country
 - Income deferred in tax haven
 - Interest not taxed anywhere!



More tax planning strategies

- Move income across locations without tax implications through payment of inter-company dividends
 - Typically pay these dividends to “holding companies” in countries with favorable regimes (exempt dividends and impose low withholding taxes)
- Use hybrids to shift income from intellectual property like patents to tax havens
 - Tax haven engages in a cost-sharing agreement and pays for part of parent R&D.
 - Haven affiliate then licenses resulting technology to other affiliates in exchange for royalty payments.
 - These inter-company payments are invisible with check the box.



Evidence of Hybrids?

	1996	2000	Growth
Total pre-tax earning and profits	\$160.8	\$231.1	44%
Earnings and profits in major low-tax countries (Ireland, Singapore, Bermuda, Cayman Islands, Netherlands, Luxembourg, Switzerland)	36.5	82.5	126
Dividends received in the major low-tax countries	6.4	19.8	209
Tangible capital in all countries (net plant & equipment plus inventories)	767.5	982.4	28
Tangible capital in five major holding company low-tax countries (Bermuda, Cayman Islands, Netherlands, Luxembourg, Switzerland)	51.7	145.9	182

Dollars in billions. Tabulations from Treasury tax files.

All controlled foreign corporations.

Lesson One

Real capital is sensitive to differences in tax rates across countries and this responsiveness has increased over time

- **Regress real capital held by U.S. MNCs in each country on tax and non-tax characteristics**
- **Estimate elasticity of the demand for capital with respect to change in after-tax returns**



Lesson One

- Altshuler, Grubert and Newlon (2001)
 - In 1984, a one percent increase in after-tax returns led to 1.5 percent increase in the real capital stock of manufacturing affiliates
 - In 1992, this elasticity was almost 3
- Altshuler and Grubert (2005)
 - In 2000, this elasticity was 4



Lesson Two

Intangible capital is mobile and seems to have become more mobile recently

- **U.S. direct investment abroad strongly linked to intangible assets like patents and trademarks developed in the U.S.**
- **Ability to shelter royalties from U.S. taxation and income shifting opportunities create incentive to exploit intangibles abroad**



Lesson Two

- Not a lot of direct empirical evidence on impact of taxes on location of intangible capital
- Can look at where royalties are coming from
 - **Between 1994 and 1999, the share of total affiliate royalties accounted by Ireland and Singapore doubled**
 - **In 1999, royalties paid by Irish subsidiaries exceeded royalties paid by UK and German subsidiaries**
 - **In 1999, royalties paid by Singapore subsidiaries were only 25 percent lower than royalties paid by Japanese subsidiaries**



Lesson Two

- Evidence on cost sharing
 - **Mutti and Grubert (2008) find importance of cost sharing agreements increased between 1996 and 2002**
“cost sharing payments from affiliates in Ireland and from tax havens are particularly significant, both economically and statistically”
 - **Firms can relocate intangible assets abroad without actually carrying out R&D abroad**
- Migration of intellectual property is a hot topic in U.S. debate



Lesson Three

Income shifting is getting worse

- **Grubert observation:** Reported profitability of US MNCs is much higher in low-tax countries than high-tax countries suggesting income shifting
- **Grubert (2003):** Location of intangible income and allocation of debt among high- and low-tax countries account for all of the observed differences across high- and low-statutory rate countries



Lesson Three

- Altshuler and Grubert (2005): The negative correlation between profit margins and statutory tax rates has intensified between 1996 and 2000
- McDonald (2008): This relationship has become even stronger in the 2002 data



Lesson Four

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

- **Effective tax rates faced by U.S. manufacturing MNCs on investment abroad have fallen and the standard deviation has decreased relative to the mean**



Average Effective Tax Rates in Manufacturing

Year	Average Effective Tax Rate (AETR)	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

AETR = taxes paid in host country/ E&P in host country

What explains decreases in AETRs?

- Simple regression analysis of country level data from 1992 and 1998
- Results suggestive of a tax competition story
 - **Countries losing share of U.S. capital relative to their neighbors cut their effective tax rates the most**
 - **Countries with relatively high AETRs in 1990 and small countries cut their rates more than the average**



Lesson Five

There are three players in the tax competition game --- host countries, home countries and companies

– Add statutory tax rate to analysis from lesson four

- Statutory tax rate indicates incentives for company tax planning at the margin
- Statutory tax rate plays no role in explaining decreases in AETRs over the 1992-1998 period



Lesson Five

- The story changes in 2000
 - **Change in capital share and initial effective tax rates no longer explain differences in declines in AETRs**
 - **Statutory tax rate has greater explanatory power**
 - **Company rather than country behavior seems to be explaining changes in AETRs**



Lesson Five

- Cannot directly observe extent to which tax planning has lowered ETRS
- Can look at whether factors explaining the variation in ETRs at the firm-level have changed in recent years
 - **Ex. Hybrid entities and securities that allow income to be stripped out of high-tax countries may weaken the relationship between statutory rates and ETRs**



Lesson Five

- Compare CFC level data for 1996 and 2000
 - **Statutory rate is smaller and much less significant determinant of ETRs in 2000 than in 1996**
- Role of profitability in explaining differences in ETRs has changed
 - **Higher profitability now associated with lower ETRs**
- R&D intensive CFCs in 2000 have lower ETRs
 - **Suggests that companies are able to shift income from R&D projects in high-tax countries to hybrid entities in tax havens through royalty payments**



Lesson Six

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

– **Rethink: (sorry David!)**

- Corporate statutory rate affects both foreign direct investment and foreign portfolio investment



Lesson Six

- Desai and Dharmapala (2008)
- Investors can diversify their portfolios internationally
 - **directly (through investment in shares of foreign MNCs)**
 - **or indirectly (through investment in shares of US MNCs)**



Desai and Dharmapala

- Tax implications
 - **Invest in US MNC and subject to**
 - foreign corporate rate, **US corporate rate**, US individual rate on dividends or capital gains
 - **Invest in foreign MNC and subject to**
 - foreign corporate rate, US individual rate on dividends or capital gains
 - **U.S. savers avoid any burden of the repatriation tax by channeling investment directly through foreign corporations**



Desai and Dharmapala

- A 10% decrease in a foreign country's corporate tax rate increases U.S. investors equity foreign portfolio holdings by 21%
- Residual U.S. corporate tax on foreign direct investment does influence behavior of U.S. investors by biasing capital flows to countries with low corporate tax rates to foreign portfolio investment



Lesson Seven

The starting point for reform is the current system

- Seems obvious but is ignored in much theoretical literature
- Interesting analysis: implications of moving from current U.S. tax system to a dividend exemption system



Implications of Moving to Dividend Exemption System

- Original work by Grubert and Mutti
- Location decisions
 - **At first glance, would think that incentives to invest in low-tax countries abroad would be stronger under a dividend exemption system**
- Tax revenue
 - **Would expect decrease**



Implications of Moving to Dividend Exemption System

- Altshuler and Grubert (2001): Marginal effective tax rates can increase relative to current system!
 - **Depends on characteristics of MNCs (intangible income, foreign tax credit position)**
 - **Depends on rules of new system (expense allocation rules)**
 - **Depends on behavioral responses of firms**



Implications of Moving to Dividend Exemption System

- Grubert (2001): Tax revenue can increase under dividend exemption relative to current system!
 - **Depends on expense allocation rules and behavioral responses of firms**



Conclusions

- What have we learned?
 - **Caveat: Not an exhaustive study!**
 - **Real and intangible capital has become more mobile**
 - **Income shifting has gotten worse**
 - **Tax planning has become more sophisticated**
 - **Tax policies that affect corporate decisions can also influence portfolio decisions**



Implications for Reform

- One way to reduce distortions is to reduce the corporate rate
 - **Corporate statutory rate affects location decisions, income shifting, tax planning, portfolio decisions, inward and outward FDI, decisions of domestic corporations and more**
- How will this be accomplished?
 - **If revenue neutral, what other tax policy instruments used to raise revenue?**
 - **What are implications for efficiency, fairness, and simplicity?**
- More work needed but important to understand how MNCs respond

