

The Welfare Implications of Tax Competition

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It's all about the pie.

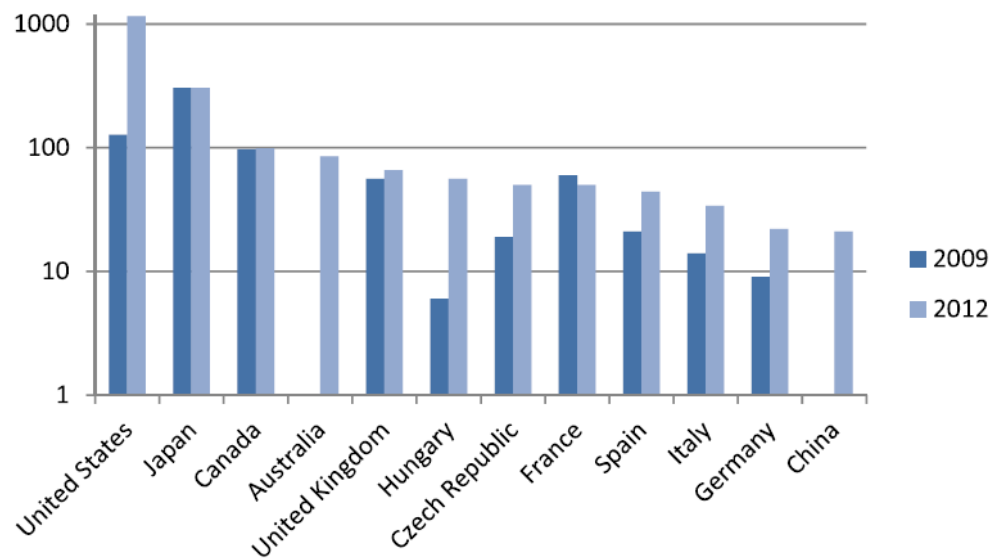


How does tax competition affect welfare?

- What is welfare? It's all about pie.
 - How big is the pie:
 - Income, jobs, growth
 - Who gets what share
 - Across countries, public/private, groups (different tax bases, firms, consumers, etc.)
- To answer the question, we need to ask what tax competition does to policy and what policy change does to the size and distribution of the pie.
- My argument: the main debate is over the distribution of pie across countries

What does competition do to policy?

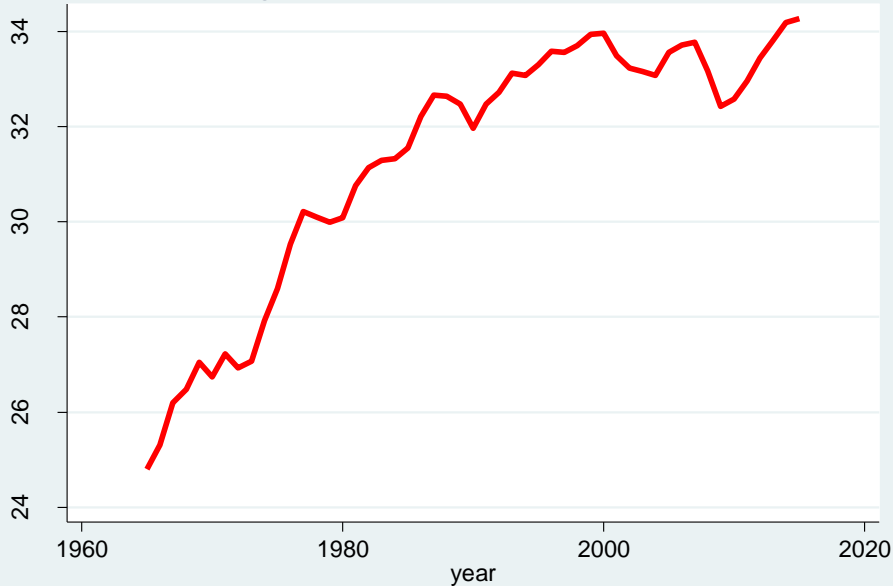
- Lowers tax rates
 - 1pp fall in other taxes leads to .7pp fall here
 - Devereux, Lockwood, Redoano (2008, *JPubE*)
- Other tax-reducing policies
 - Patent/knowledge box
 - APAs
 - Becker, Davies, Jakob (2017, *JEBO*)
- Tax Environment, not just rates



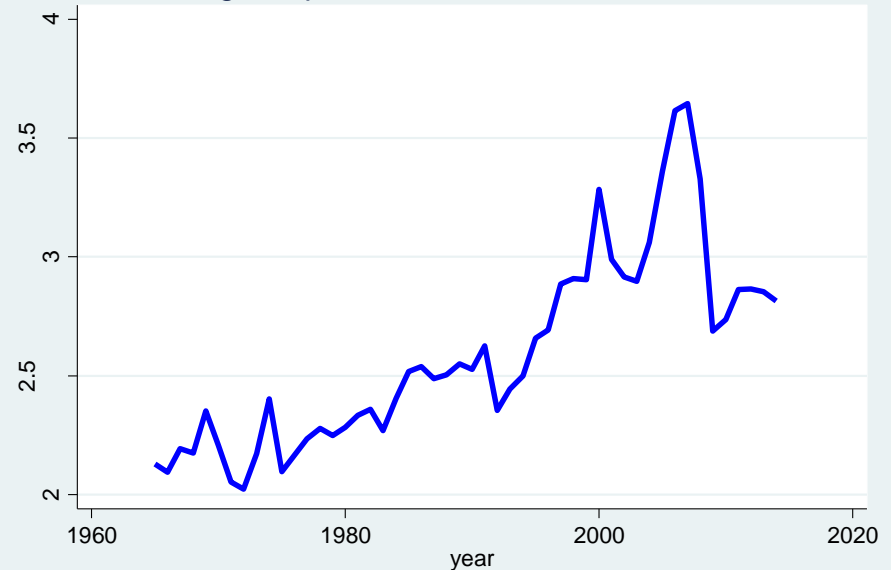
Tax competition and distribution

- Mix between public and private
 - Fairly steady share of revenues to GDP

Avg. Tax/GDP in OECD 1965-2015



Avg. Corp. Tax/GDP in OECD 1965-2014



Tax competition and distribution

- Likewise, no clear shift of tax burden from firms to consumers
 - Within group shifts?
 - Apple tax case and APAs:
 - Preferential treatment
 - APA affecting the market (other firms and consumers)
- Allocation across nations
 - Impact on where the *benefits* (not just investment) of FDI go

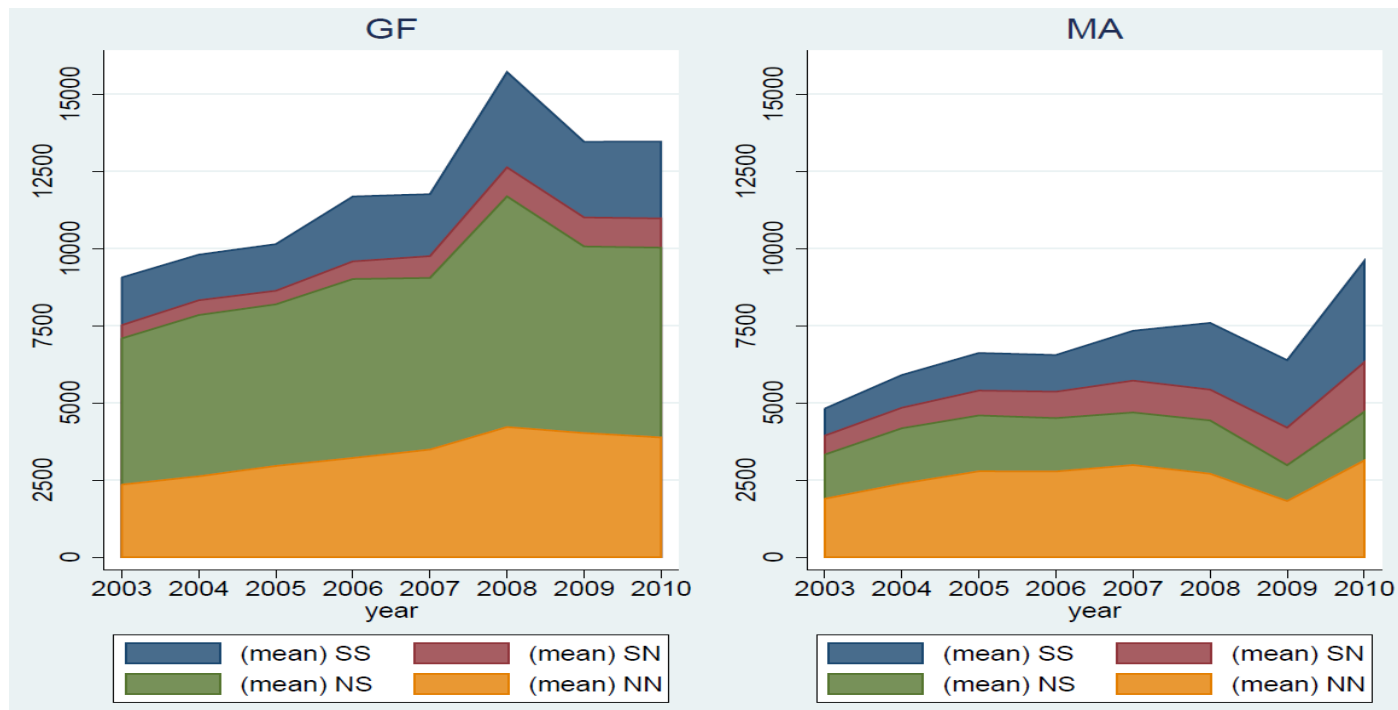
Allocation of FDI across countries

- How to measure FDI?
 - FDI: Profits, number of investments, capital, employment, patents
 - Competition: Number of firms
- Either way, taxes deter FDI
 - Host tax: Literally *thousands* of papers
 - Home tax: Barrios, et al (2012, JPubE); Davies, Siedschlag, Studnicka (2016); Davies, Desbordes, Ray (2015)

Competition for investment or firms?

- Studies examine location *or* size
- Davies, Siedschlag, Studnicka (2016)
 - Intra-EU FDI, 2004-2013
 - Examines extensive (location) and intensive (size) in a single framework
 - Long-run home and host taxes reduce FDI
 - Host: 84% of aggregate changes in extensive
 - Home: 64% of aggregate changes in extensive
 - Bulk of reduction in investment is *fewer* not *smaller* firms
 - Implications for competition (Apple)
- Competition for firms, not investment

Greenfield vs. M&A



- GF is 63% of projects, 20% of investment
- Taxes only affect GF (host: 1%; home: .7%)
 - Becker and Fuest (2010, *IER*); Davies, Desbordes, Ray (2016)

Greenfield vs. M&A

- GF seems to have more economic impacts in labour markets and on growth
 - Davies and Desbordes (2015, *CJE*)
 - Harms and Meon (2014)
- Increases Local investment (Borenzstein, De Gregorio, Lee, 1998, *JIE*)
 - Crowding-in
- Outbound FDI has positive productivity effects
 - van Pottelsberghe de la Potterie and Lichtenberg (2001, *REStat*)

- Not much evidence (yet)
 - Bradley, Dauchy, Robinson (2015): 1 pp fall in tax results in 3% increase in patent applications; no impact on location
- Effects on innovation type
 - Patent boxes reward *successful* and *profitable* innovations
 - Ernst, Richter, and Riedel (2014, *ITAX*): subsidize cost increases quantity, subsidize income stream increases quality (not profitability)

- No evidence on the impacts of these
 - Theory points to efficiency gains (BDJ, 2017); empirics stymied by confidential information
 - But: firms have to ask for an APA and APAs are costly so might just apply to the already big players (Apple)

Tax competition and welfare

- So if tax competition lowers the tax burden:
 - The pie gets bigger, potentially at home and in the host
 - Leaves out non-hosts
 - Can shift benefits across hosts, especially for valuable greenfield
 - This should be the primary conversation

Distribution of pie across countries

- OECD and EU discussion:
 - Not about tax rates, but about taxing where rents are generated; “Fair” tax competition
- “Level playing field” on an uneven pitch
 - FDI responds to a lot more than taxes
 - Access to consumers
 - Worker quality, wages, and energy costs
 - Trade and cultural barriers
 - Shadow banks (Davies and Killeen, 2015)
 - Is tax competition unfair when some countries have “unfair” natural advantages?

Second-best competition?

- Reducing tax competition doesn't eliminate competition
 - Labour Standards: A 1 point cut in collective bargaining rights everywhere else reduces local rights by .7 (*de facto*, not *de jure*)
 - Davies and Vadlammanati (2013, *JDevE*)
 - Environmental Standards: Size of effect varies according to the policy
 - Eliste and Fredriksson (2004, *JEEM*), Levinson (2003, *NTJ*), Davies and Naughton (2014, *ITAX*)
 - **Tax** competition may increase the pie, these might have very different impacts

Conclusion

- Tax competition lowers tax burdens
- This increases the size of the pie but shifts the share to low-tax hosts
- This shifts the debate to “fair competition” but on an uneven field
 - How to distribute the benefits as well as revenues when distribution is a concern
- Awareness of limited tax competition creating second best competition

Thank you

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