Before launching into bigger picture thoughts about how Teemu's work can help us consider the open big picture questions on tax competition, let me take a moment to describe the strengths of his paper. Teemu's manuscript asks us to engage with the consequences of forcing low property tax rate municipalities to increase those low rates. We are interested in the consequences of this policy change for both for the targeted municipalities and for municipalities neighboring targeted ones. We learn that Finnish municipalities do what they are told: when instructed to increase tax rates, municipalities do so. Predictably, this leads to an increase in local property tax revenues. Sadly, the data are not sufficiently powerful to explain what happens to total local revenues. Such an analysis would help us understand whether this policy generates a net increase in local revenues, or instead a shift from one base to another.

Of particular interest to this volume, Teemu explores what happens to tax rates and revenues in municipalities neighboring those municipalities forced to increase rates. The bottom line is "not much." Neighboring municipalities show no substantive change in their tax rates or revenue collection in response to neighbors' forced tax rate increases.

There is a lot to enjoy in this paper. For a US audience, the context and politics are radically different from our institutional setting. In the US, it is very rare for any government to mandate minimum tax rates from one level to another, so the mere existence of such a policy is quite novel. While tax rate maximums, such as the maximum local option sales tax – the maximum sales tax a state allows a local jurisdiction to levy – are common, minimums are few and far between (Burge and Piper, 2012; Burge and Rogers, 2018). Further, while the US has piecemeal policies, such as school finance equalization schemes, that may substitute for the role of equalization in Finland, we have no direct equalization between levels of government in the way that the Finnish government does.

Beyond this context, the paper gives a wealth of critical institutional details that help us understand why actors behave as they do, or fail to change behavior much at all. We learn that the property tax is a very small – though growing – share of revenues for Finnish municipalities. We also learn that the government has other tools to mitigate competition among municipalities. One such tool, prevalent over the period Teemu studies, are "encouraged" municipal mergers. Unlike the tax increases, these mergers are not mandated. Instead, the government tries to make an offer the municipalities can't refuse. This is more than a nudge, but less than a mandate. Municipal mergers internalize the competitive pressures that Teemu studies via tax rate competition.

And we also learn through Teemu's close reading of the lawmaking process that the increases in property tax rate minimums were likely driven by vertical tax competition, rather than fears of horizontal tax competition. Indeed, the national government feared that municipalities were gobbling up too much of the income tax and hoped that pushing them to collect more property tax would lessen these municipalities' dependence on the shared base of the income tax.

Finally, Teemu makes the very salient point that any shifts in the tax base potentially caused by these tax policy changes should be very slow. We look forward to Teemu's update in another decade on the impacts of raising the tax rate floor in 2000, the largest of all the policy changes, on the property tax base.

Teemu's study gives a generous a launching pad to consider multiple big issues in tax competition: who we compete with, which jurisdictions force the competition, and when such a minimum tax rate policy can succeed.

Teemu's paper, like virtually all papers in this literature, looks locally for tax competitors. It is easy to believe that municipalities compete with their geographic neighbors. Within a metropolitan area, Tiebout tells us that mobile households should drive policy packages of taxes and services (Tiebout, 1956). Local comparisons may also be particularly salient for voters.

But it is hard to believe that tax competition is limited to geographic neighbors, particularly for larger municipalities. For example, Wikipedia tells me that Finland's capital of Helsinki, population 657,674, sits next to three municipalities: Espoo, population 292,913, Vantaa, population 237,231 and Sipoo, population 21,693. Will those in Helsinki really bother to react to what citizens of tiny Sipoo do? I would hazard that those in Helsinki are at least as bothered about what happens in the other Nordic capitals of Stockholm, Copenhagen and Olso as they are about the behavior of Sipoo.

When I suggested at the conference for this volume that the spatial margin for tax competition was just one of many relevant margins, Jim Hines said that this was surely true but that there is no theory to guide us on other dimensions of competition. So let this be a call to arms – or at least to the keyboard! Other margins along which municipalities could compete include the income of residents, the size of the municipality, or the extent or type of specialty industries. In countries where equalization is valuable and salient, we may also see competition for jurisdictions near an equalization cut-off.

Where might such non-geographic competition be most fierce? My guess is that as an empirical matter it might be most obvious when jurisdictions compete for specialized industries. For example, consider the economic literature about film tax credits (Sewordor and Sjoquist, 2016; Workman, 2021). This seems like an area particularly well-suited to analyze non-geographic tax competition. When the city of Atlanta offers tax breaks for film shoots, is not competing with the suburb of Decatur: it is competing with Los Angeles and Vancouver and Toronto. This type of clearly defined competition, in conjunction with a well-posed theory, could let empiricists test which types of competition hold the most sway and under what circumstances.

In part to understand what the key dimensions of competition are, and in part to better understand how policies that seek to limit tax competition will be received, it is also useful to understand which jurisdictions set the agenda in the tax competition space. In Teemu's framework, these potential chief competitors would be the tax laggards. In the international case, tax competition is also usually driven by jurisdictions with low rates or by those with very permissive tax administration.

In a domestic context, it may not be so easy to clearly guess the characteristics of tax laggards – casting no aspersions on the state of Delaware, which makes its hospitality to incorporation crystal clear. Teemu helpfully tells us (see Table 3) that in Finland, the government forces almost three-quarters of municipalities to raise residential property tax rates during one of the four reforms. Furthermore, roughly one-third of municipalities are repeat offenders, ordered by the government to increase rates in more than one rate-raising episode. However, only about half of municipalities end up in the government's crosshairs for the general property tax, and an even lower one in eight

municipalities are general property tax repeat offenders. Why is this? And who are these laggards? Are they small? Do they specialize in some way?

Most broadly, if we believe that government funds can sometimes be used to improve people's lives, we are very interested in how they can be collected at the lowest possible cost. When governments collect tax revenues from the same base, they face a classic problem of collective action akin to fishermen foraging out of a common pool with a finite stock of fish. While total welfare increases when the fisherman limit fishing, each individual fisherman has a strong incentive to fish more than his or her alloted amount while the others observe the rules. Like the fisherman, tax collectors from different levels of government (or different countries) face a strong incentive to fish more than is socially optimal. In the world of fishing, some institutional solutions have been successful in minimizing overfishing (Olson, 1965; Ostrom, 1990). These solutions require incentives, trust and monitoring.

The binding minimum tax rates that Teemu studies are one institutional solution to the problem of overfishing tax revenues. The Finnish context offers muncipalities few direct incentives for compliance, but perhaps does not need to. The Finnish national governmen is an all-present monitor, assessing property, collecting taxes, and sending revenues to local governments.

Should we view Finland's system as a successful institutional arrangement limiting overfishing? And does it have implications for the more general problem of tax competition? As we look to the Organization of Economic Cooperation and Development's implementation of a binding minimum corporate tax rate, this is of central policy interest. Given the data's inability to establish evidence of tax competition before the Finnish policy, nor a competition response afterward, it is difficult to brand this policy as either a success or failure.

But if there is some success here, it gives us a launching pad to think about the context of when minimum tax rates succeed in stemming tax overfishing. The first obvious reason that minimum tax rates succeed here is that they are levied by a national government to a subnational government. Clearly, a national government has substantially more power over local governments than international organizations have over sovereigns. But there are other possible reasons that a binding minimum may limit overfishing in Teemu's context. The tax at issue here – the property tax – has a relatively immobile base of durable capital. While capital can move – no one who has seen the long and continuing march of manufacturing around the world can doubt this – its movement is slow and costly. Additionally, Teemu points out that in his case, while property tax rates are both vivible and salient, the level of services that a municipality offers with the tax revenues is less easily evaluated. Here, at least, this net impact yields little competition.

Finally, in the particular case here, Finland has an equalization scheme that may help compensate any losers from forced tax rate increases. This form of national insurance should make enacting difficult policy requirements somewhat easier. Is there any international analogue for this kind of "hold (a little bit) harmless" provision? Who would provide? When might it be politically feasible?

Looking forward, economists should feel certain that problems of tax competition will remain fertile ground for decades to come. Many critical margins for competition beckon the research community, and the efficient tax collection it helps generate should yield benefits for all.

References

- Burge, Gregory S. and Piper, Brian, 2012. "Strategic Fiscal Interdependence: County and Municipal Adoptions of Local Option Sales Taxes." National Tax Journal 65(2): 387 – 415.
- Burge, Gregory S. and Rogers, Cynthia L., 2018. "Do State Sales Taxes Crowd Out Local Option Sales Taxes?." B.E. Journal of Economic Analysis and Policy 18(3): 1 9.
- Olson, Mancur, 1965. <u>The Logic of Collective Action: Public Goods and the Theory of Groups</u>. Cambridge, Mass.: Harvard University Press.
- Ostrom, Elinor, 1990. <u>Governing the Commons: The Evolution of Institutions for Collective</u> Action. New York: Cambridge University Press.
- Sewordor, Emefa and Sjoquist, David L., 2016. "Lights, Camera, Action: The Adoption of State Film Tax Credits." Public Budgeting and Finance 36(2): 5 25.
- Tiebout, Charles M., 1956. "A Pure Theory of Local Expenditures." Journal of Political Economy 64(5): 416–424.
- Workman, Alec, 2021. "Ready for a Close-Up: The Effect of Tax Incentives on Film Production in California." Economic Development Quarterly 35(2): 125 140.