
The results suggest that building the capacity
of developing countries to collect taxes may be an effective
way to lead to spending
on investments that benefit citizens

Taxing and spending: Examining the relationship between the sources of public finance and the effects on public accountability

By Lucie Gadenne

Can we trust governments to spend revenues they receive in ways that improve the welfare of their citizens? The vast body of evidence on the topic from developing countries is disappointing. Typically, when government revenues rise, public health, education and social infrastructure seldom benefit, research shows. Money is often wasted or diverted (e.g. Reinikka and Svensson 2005, Olken 2007).

MOST OF THESE studies focus on increases in non-tax revenues, such as grants from higher levels of government, royalties from the exploitation of natural resources, and official development aid. This is likely because of the difficulty in finding variations in tax revenues that are unrelated to other determinants of public spending. Governments might, however, spend tax revenues and non-tax revenues in different ways. Given the growing focus on revenue mobilisation in development, understanding whether an increase in a government's capacity to tax leads to better public expenditure outcomes is important. Better understanding of this issue can help determine whether, and when, it is worth putting more effort into investing in tax capacity.

In recent research, I focus on local governments (municipalities) in Brazil to consider whether governments spend tax revenues better than non-tax revenues (Gadenne 2017). Municipalities in Brazil control one fifth of public revenues. Their main expenditure is education, an area in which Brazil's performance is disappointing compared to countries at similar levels of development (Ferraz et al. 2012). Municipalities are in charge of primary education, and so shoulder much of the blame for poor educational outcomes. There is also substantial evidence that municipalities do not use increases in their *non-tax revenues* to improve local outcomes (Caselli and Michaels 2013, Ferraz and Monteiro 2010, Brollo et al. 2013). In this context, it is worth asking whether *tax revenues* would also be wasted or diverted.

I study a programme that helps municipalities increase their tax collection. Local governments are in charge of collecting and setting the rates of two main taxes: a service tax, and an urban property tax. ▶

Most local administrations, however, have little capacity to enforce tax payments. Municipal staff often rely on outdated tax registers, and have little institutional memory. Tax liability assessments can depend on the whim of the assessor. The high costs of understanding and paying taxes, and the low penalties for tax dodgers, mean that many citizens simply do not comply with the tax system. To improve this situation, the Brazilian Development Bank (BNDES) launched the *Programa de Modernização da Administração Tributaria* (PMAT), which in 1998 began providing local governments with subsidised loans to invest in modernising their tax administration.

A potential concern is that the municipalities joining the programme may also be the ones that already raise more taxes and spend their revenues better, However, the timing of municipalities' uptake of the programme allows me to distinguish the causal effect of the programme on tax revenues. My results indicate that an investment of one Brazilian real in tax capacity led to an annual increase in tax revenues of roughly one real per year after five years. The extra revenue was invested in local public infrastructure: using data on all municipal schools in Brazil, I find that the increase in tax revenues generated by PMAT led to an increase of 5 percent to 6 percent in the quantity of municipal education infrastructure, and a significant improvement in an index of the quality of the infrastructure. I find similar results for local health infrastructure.

A programme that increased the tax-collecting capacity of local governments in Brazil led to increases in the quality and quantity of local education infrastructure.

Local governments tend to spend tax revenue increases in more beneficial ways than non-tax revenues, such as cash grants.

How does this compare to the impact of increases in non-tax revenues? I examine variations in non-tax revenues from a rule that determines the size of a federal transfer to municipalities. Using this, I can estimate the effect of an increase in transfers of roughly the same amount as the increase in taxes generated by PMAT. I find that higher transfer revenues have no impact on local education or health infrastructure investments.

The PMAT programme was voluntary, and only 300 local governments – those motivated enough to apply for it – took up the offer. So, from this evidence alone, we cannot conclude that tax and non-tax revenues would always be spent differently by all types of local government. Nevertheless, my results show that PMAT has increased the tax-collecting capacity of local governments that volunteered, and that this, in turn, has increased both the quantity and quality of local education infrastructure. Meanwhile, increases in federal grants to the average government have had no effect.

Overall, the evidence also indicates that revenue mobilisation at the local government level can work in Brazil: this programme, in place for nearly 20 years, has provided long-term sources of funding for local governments, and has led to more spending on education infrastructure. These results have implications that extend beyond Brazil. They suggest that development assistance to build tax capacity would create more public investment than grants or cash transfers. ◀

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