

Urban Public Finance in Developing Countries: Research Frontiers

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World Bank and GWU Sustainable Cities Workshop

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Cities: Our Greatest Invention?

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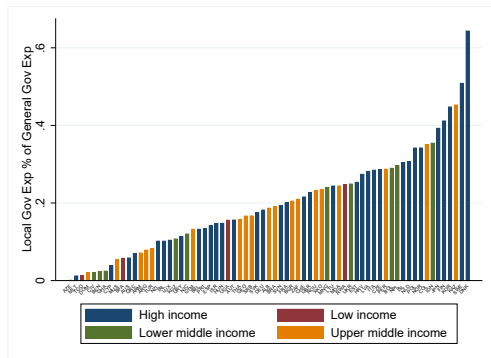


How Much Do Local Gov's Spend & How Are They Funded?

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Source: OECD-UCLG World Observatory on Subnational Government Finance and Investment.

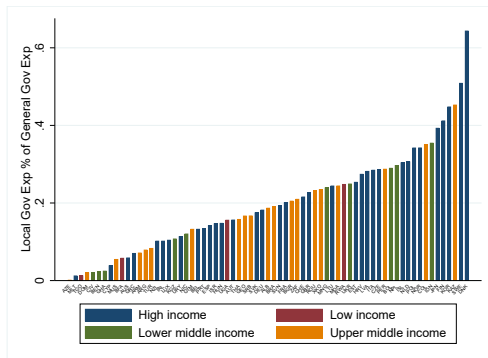
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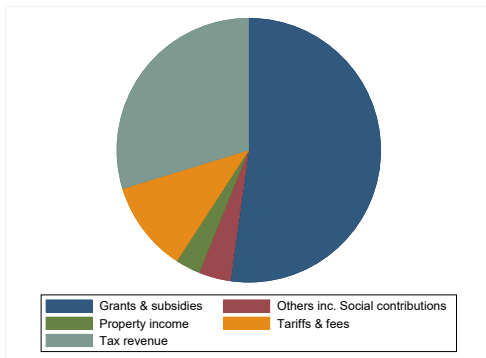
(a) Local Expenditure Share

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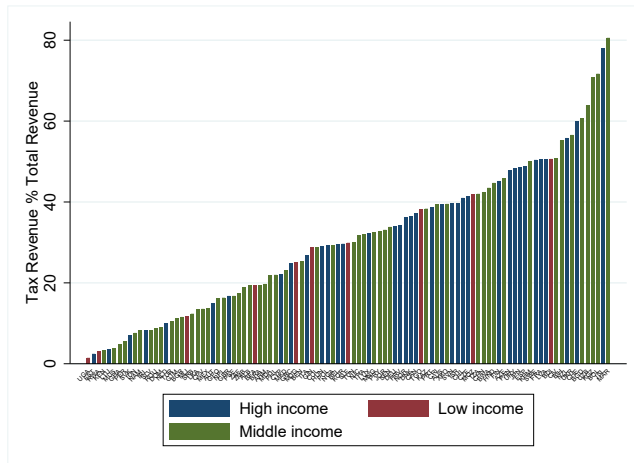
(a) Local Expenditure Share



(b) Local Revenue Composition

Source: OECD-UCLG World Observatory on Subnational Government Finance and Investment.

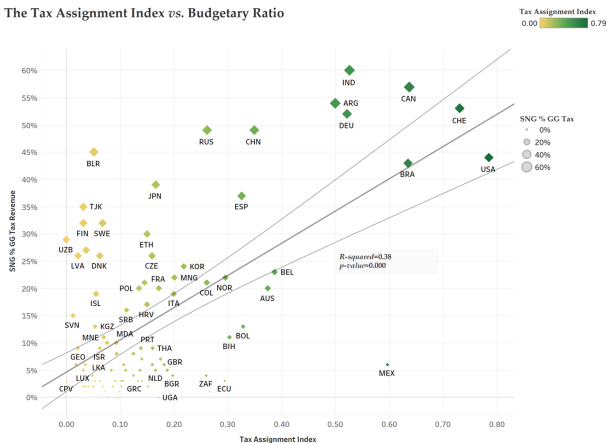
How Much Does Local Gov't Funding Vary?



Source: OECD-UCLG World Observatory on Subnational Government Finance and Investment.

How Does Revenue Vary With Discretion Over Taxes?

The Tax Assignment Index vs. Budgetary Ratio



Notes

Budgetary Ratio (SNG % GG Tax Revenue): Share of Subnational Government in Consolidated General Government Tax Revenue.

Data Sources: World Observatory on Subnational Government Finance and Investment (WOFI)

Source: Vincent (2023), Multi-Layer Tax Arrangements, A New Dataset.

Cities as Mini-Labs of the Fiscal Contract

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Citizens

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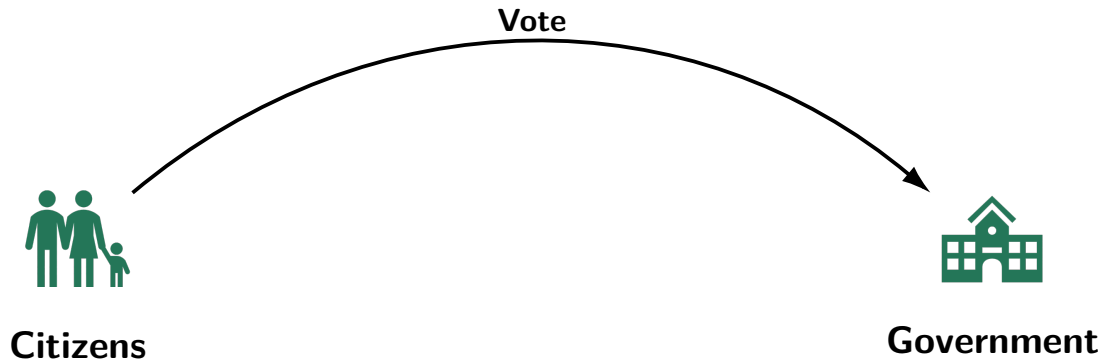


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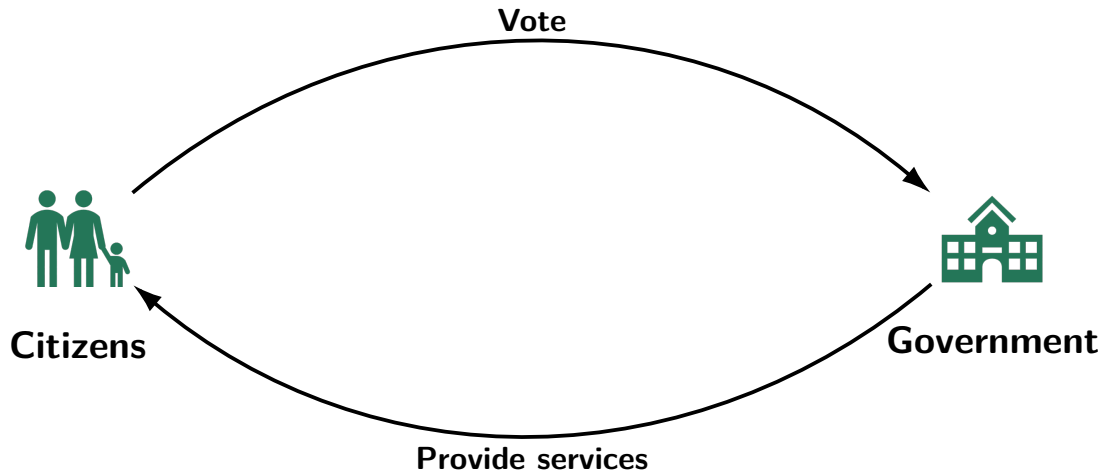


Government

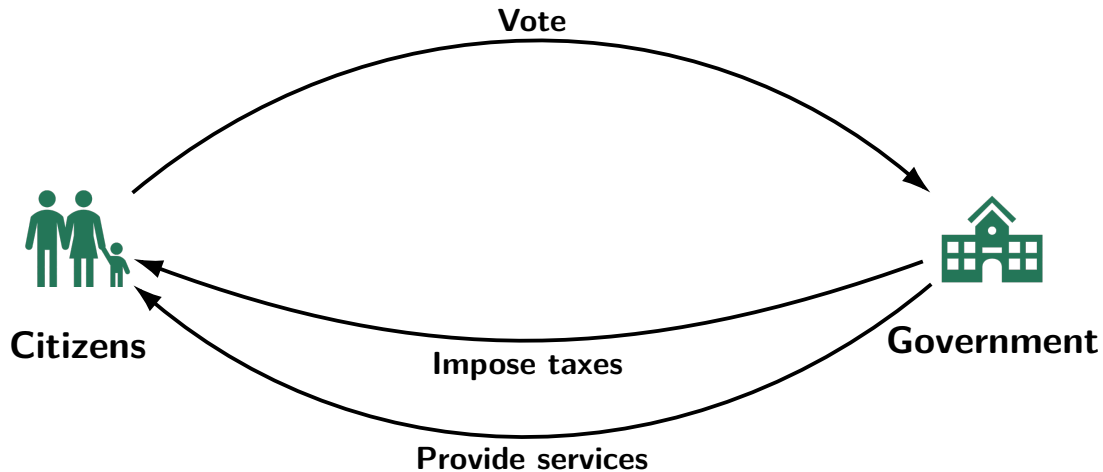
Cities as Mini-Labs of the Fiscal Contract



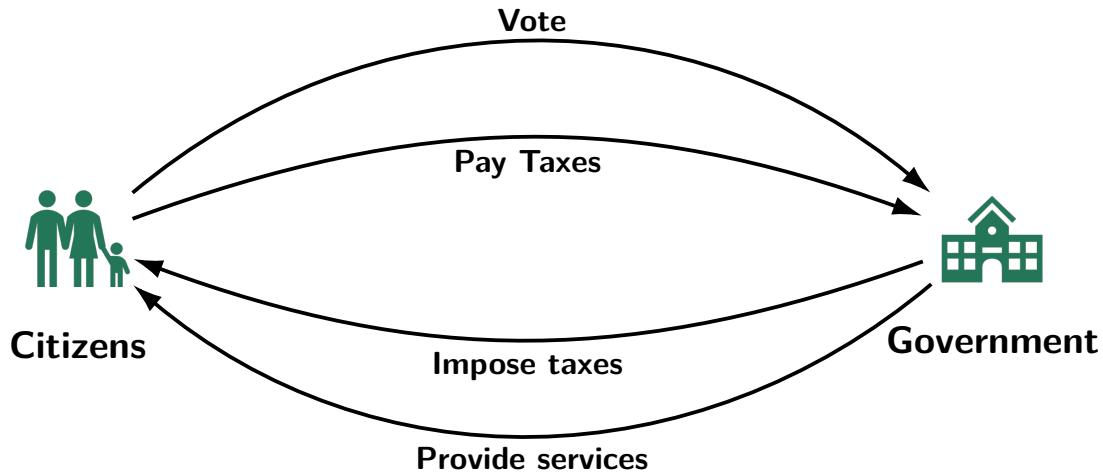
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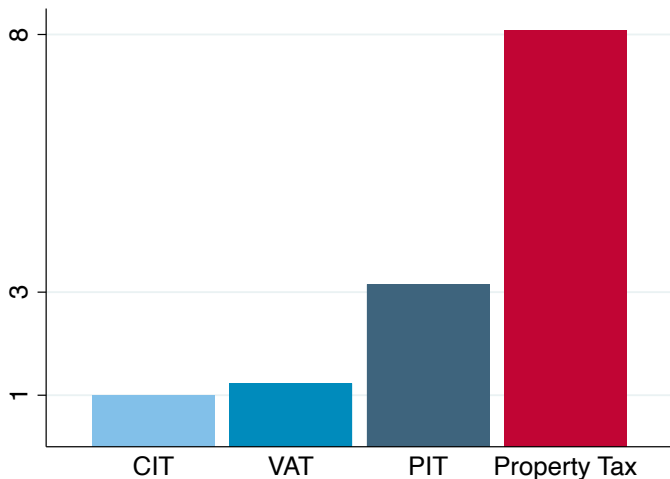
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Ration of Tax Revenue to GDP in High vs Low-Income Countries



Source: Brockmeyer et al (2023), Taxing Property in Developing Countries.

The Property Tax

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Pros:

- ▶ Can be a tool for redistribution
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Cons:

- ▶ Cadaster are incomplete or valuations outdated
- ▶ Non-compliance due to limited enforcement
- ▶ Liquidity constraints
- ▶ Manual collection, corruption

⇒ **How to improve property tax design and raise revenue?**

Thought #1/3

Getting the Tax Rate Right

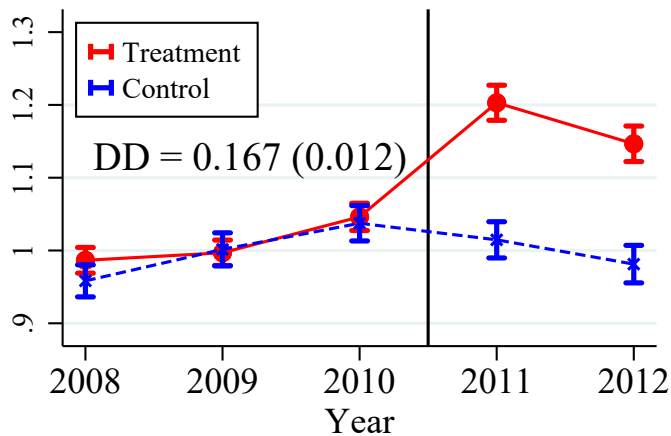
*Or how to make people pay **more***

Thought #1/3

Getting the Tax Rate Right

*Or how to make (some) people pay **more***

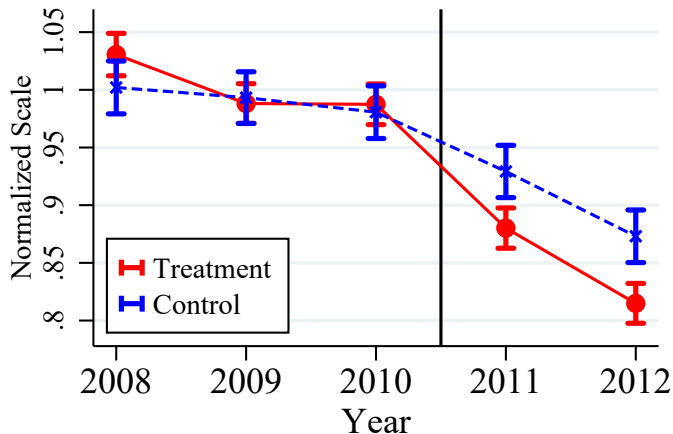
In Mexico City, Raising the Tax Rate Raises Payment



N=16172 properties per year

Source: Brockmeyer et al (2023), Taxing Property in Developing Countries.

...Although Compliance Falls



DD = -0.070 ($.010$), $N=16172$ properties per year

Source: Brockmeyer et al (2023), Taxing Property in Developing Countries.

In Kasai Centrale, Congo DRC, Payment Falls With Tax Rate

	Outcome: Tax Compliance (Indicator)			
	All properties (1)	All properties (2)	Low-value properties (3)	High-value properties (4)
<u>Panel A: Treatment Effects</u>				
50% Reduction	0.074*** (0.004)	0.073*** (0.004)	0.076*** (0.004)	0.050*** (0.012)
33% Reduction	0.044*** (0.004)	0.044*** (0.004)	0.046*** (0.004)	0.026** (0.010)
17% Reduction	0.011** (0.003)	0.011*** (0.003)	0.014*** (0.004)	-0.013 (0.009)
Mean (control)	0.056	0.056	0.057	0.046

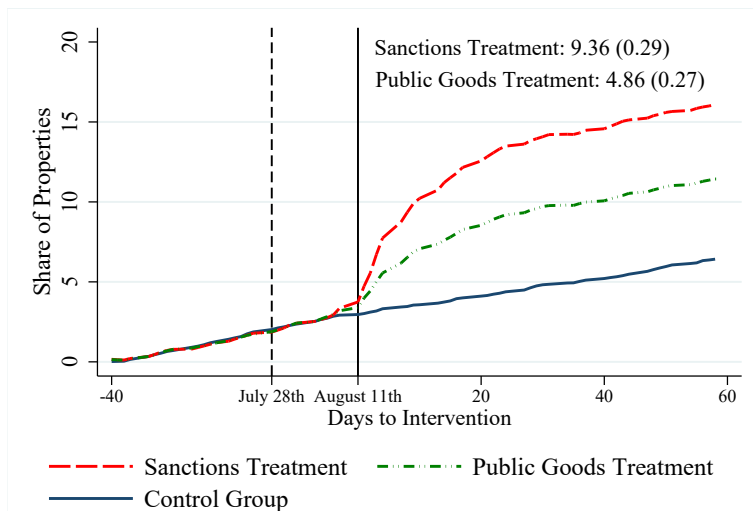
Source: Bergeron et al (2021), The State Capacity Ceiling on Tax Rates.

Thought #2/3

Getting Enforcement Right

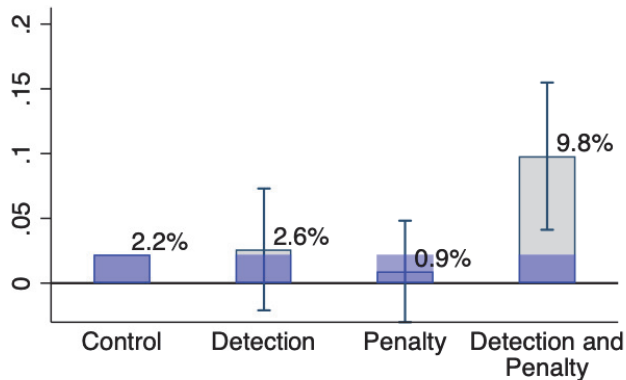
*Or how to make **more** people pay*

Enforcement Increases Payment in Mexico City



Source: Brockmeyer et al (2023), Taxing Property in Developing Countries.

Enforcement Widens the Tax Net in Monrovia, Liberia



Source: Okunogbe (2021), *Becoming Legible to the State*.

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BUT:

- ▶ Enforcement generates a **welfare cost**: e.g. fear of fines & property seizure
⇒ **Need to take spillovers and welfare cost into account when thinking about optimal targeting of enforcement**

Thought #3/3

Getting Public Service Provision Right

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Getting Public Service Provision Right

*Making **everyone** pay more?*

The Habitat Program in Mexico City

Playground in San Lucas, Iztapalapa



(a) Pre-Habitat, 2008



(b) Post-Habitat, 2014

Habitat investments: Street Lighting

Street Lights and Upgraded Electrics in San Lucas, Iztapalapa



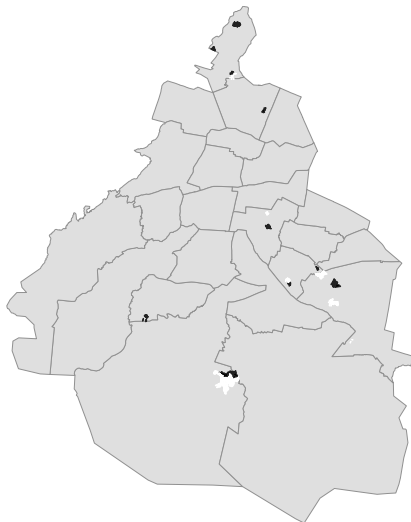
(a) Pre-Habitat, 2008



(b) Post-Habitat, 2014

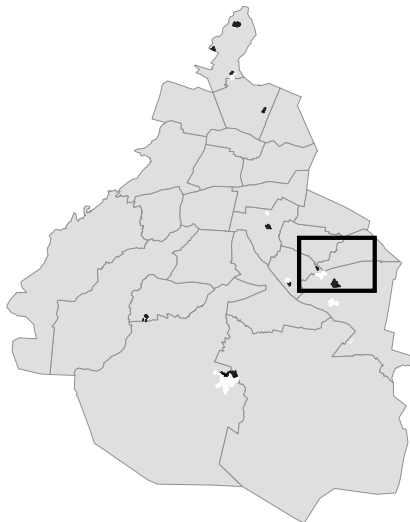
Habitat polygons in Mexico City

- ▶ 20 urban polygons
(Control: 8 / Treatment: 12)
- ▶ 437 street blocks
(C: 262 / T: 175)
- ▶ 7,947 properties
(C: 3,697 / T: 4,250)

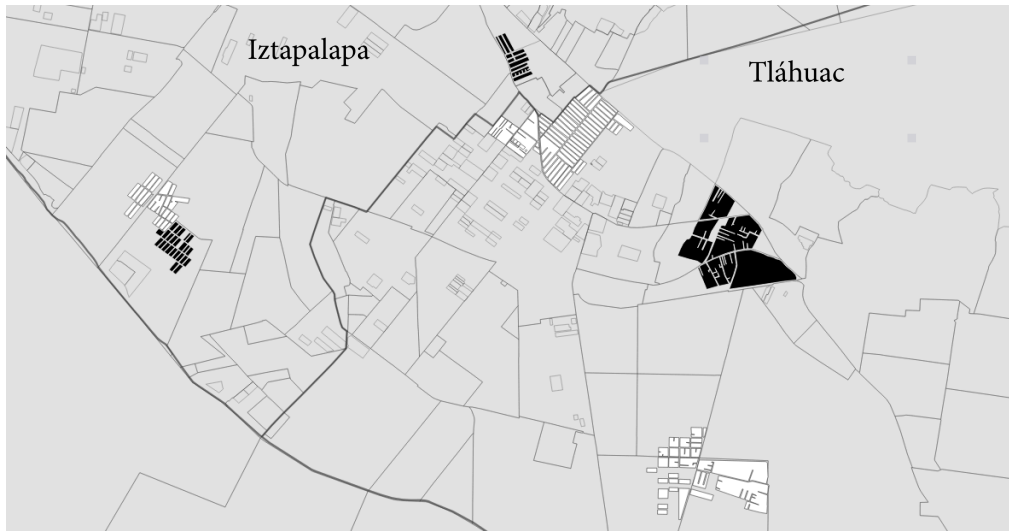


Habitat polygons in Mexico City

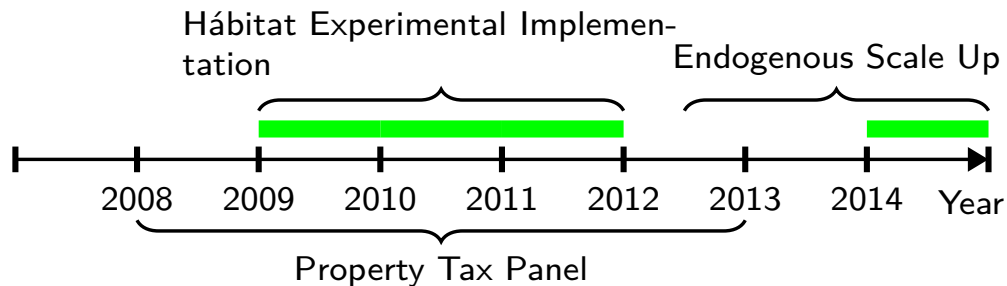
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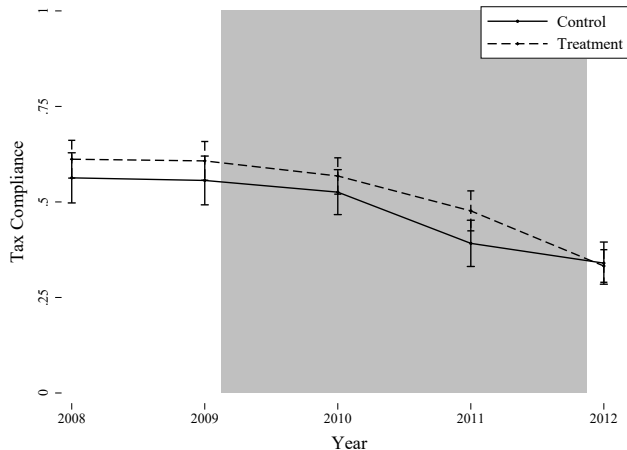
Habitat polygons in Mexico City



Habitat timeline



Effect of Habitat on Property Tax Compliance



Source: Brockmeyer et al (2023), The Fiscal Contract Up Close.

Effect of Trash Collection in Carrefour, Haiti

	Amount of Tax Paid in USD	
	FY19	FY19-FY20
	(1)	(2)
Tax Collection	-9.22** (4.53)	-12.47* (7.40)
Public Goods	0.55 (1.54)	1.37 (2.56)
PUBLIC X TAX	6.96 (5.66)	5.76 (9.89)
Linear Combination	-1.71 (3.43)	-5.33 (5.75)
Mean	13.1	21.86
F-Stat	30.24	31.22
Observations	40,060	40,060
Adjusted R ²	0.02	0.03

Source: Krause (2020), Balancing Purse and Peace.

What Have We Learned?

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Progress in developing our understanding of what works in urban public finance in the context of LMICs

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- ▶ **Setting tax rates** requires knowing context-specific responsiveness
- ▶ **Enforcement** almost always works, but setting it optimally requires accounting for spillovers and welfare costs
- ▶ **Activating the tax-benefit link** is challenging

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New methods and data used in collaboration with LG partners: RCTs, quasi-experiments, new models

Other Questions Being Studied

- ▶ **Technology** (for detection, cadaster updates, tax collectors, taxpayers): Okunogbe in Liberia, Dzansi et al in Ghana, Knebelmann et al in Senegal, Bergeron et al in Congo DRC
 - See Knebelmann (2022) for an overview property tax digitalization projects
- ▶ **Social norms, tax morale, public disclosure:** Best et al in Brazil, Manwaring & Reagan in Uganda
- ▶ **Updating the tax base:** Knebelmann et al in Senegal, Reagan in Uganda
- ▶ **Amnesties** (popular after Covid) and dynamic incentives: Lauletta & Montana Campos, Londono-Velez & Tortarolo

Open Avenues for Future Research & Policy Collaboration

- ▶ **Automating payments** through new technologies
- ▶ **Provision of liquidity** via early bird discounts or installment payment
- ▶ **Optimal progressivity** of property taxes, and interaction with the availability of other tax and transfer instruments
- ▶ **Other local taxes** on economic activity

Open Avenues for Future Research & Policy Collaboration

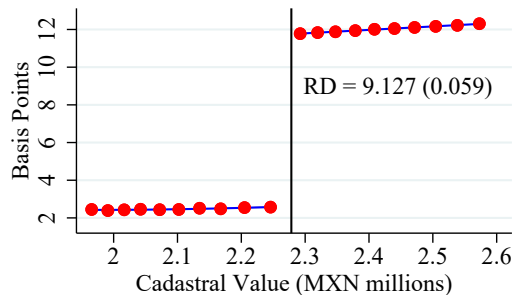
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Thank you!

Appendix

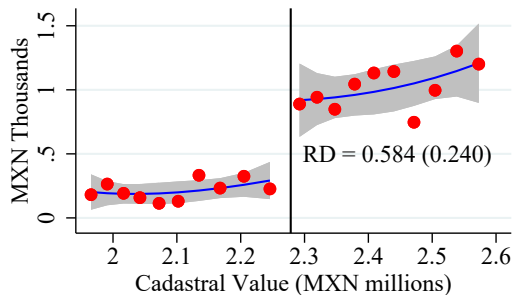
Tax Increases Raise Revenue: RD

(a) Mean tax rate



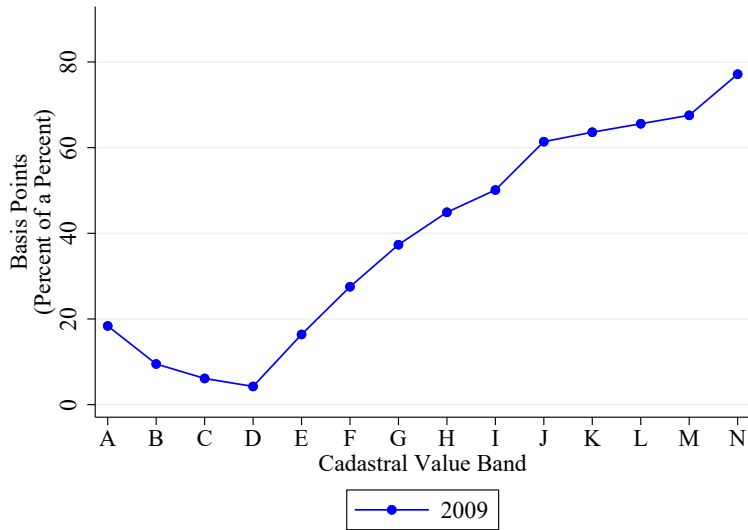
N=17864 properties

(b) Payment amount

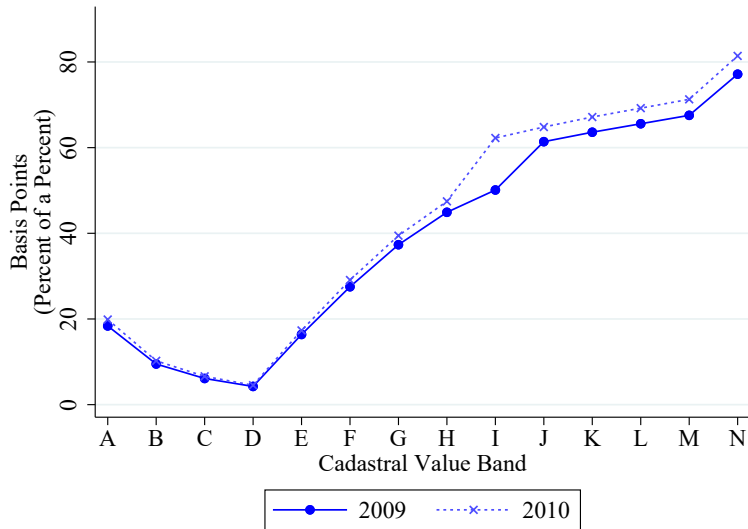


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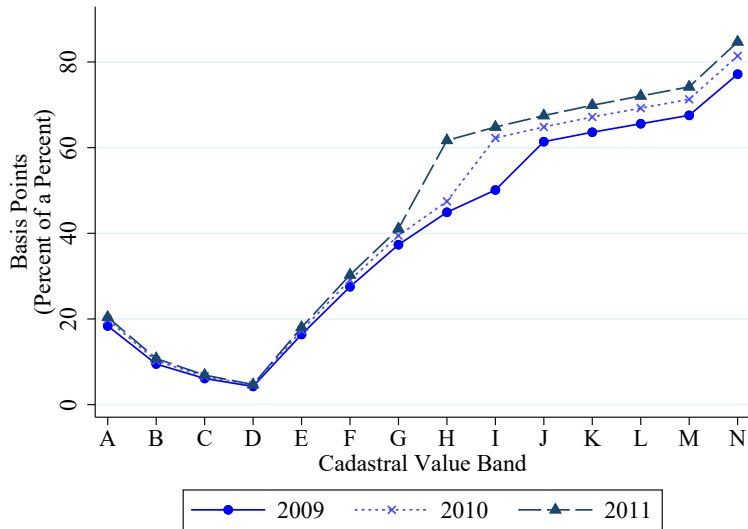
Tax Rates Vary Over Time



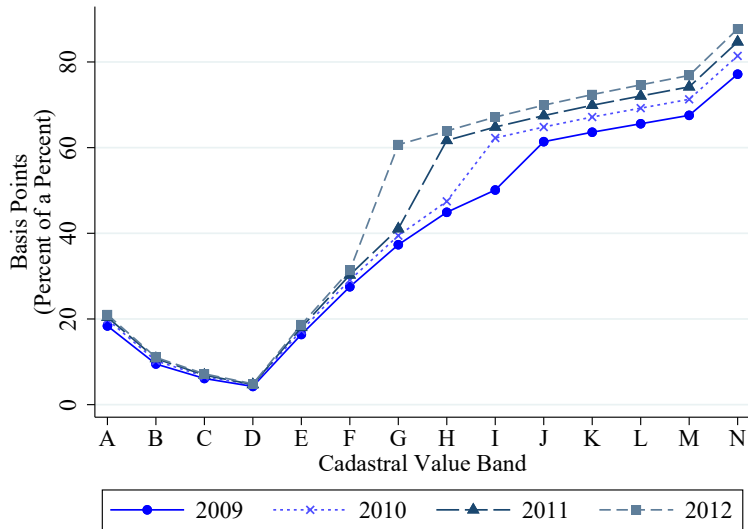
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