# Province-Level Spending, Tax Reforms, and Labour Market in Poland

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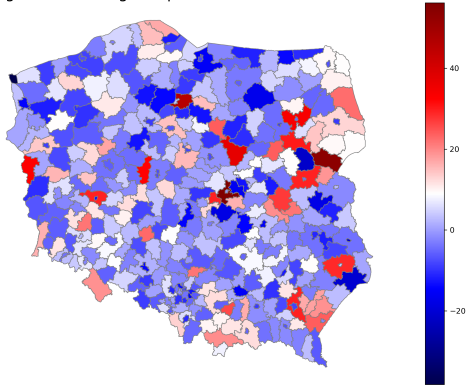
Center for Monetary and Financial Studies

December 8, 2023
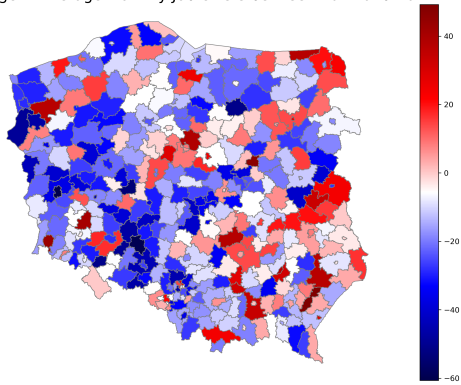
% Change in Total Budget Expenditure between 2021 and 2022

% Change in Average Monthly Job Offers between 2021 and 2022

## Questions.

**1** What are the **labour market outcomes** of local **fiscal consolidation**?
**2** How does the market adjust along inflows and outflows from unemployment?

**Methodology**.

- I use the quasi-experiment of Poland's 2021 tax reform that cut local government funding.
- Opposition-run provinces were disproportionately affected.
- Using the RD-DiD framework, I compare similar provinces of different political affiliations.

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I **contribute to the literature** on estimating geographic cross-sectional multipliers.

**1** The field studies the impact of fiscal interventions on local GDP and labour markets:
- Chodorow-Reich (2019) provides an overview of the literature;
- Komarek et al. (2022) analyse budgetary contractions; and
- my work focuses on **post-Covid consolidation in an emerging market**.

**2** The literature investigates the effect of exogenous political changes:
- Cohen et al. (2011) exploit new congressional committee chairmanships; and
- I use **party differences** between **province councils** and the **national government**.

# Literature & Contribution
Two Dimensions

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# Dataset
Politics, Budgets and Labour Outcomes

My **sample** features monthly data between 2021 and 2023.

**1** For **political outcomes**, I gather:
- the results of the 2018 local elections at district and province levels,
- for both leadership (e.g., mayoral) and council races.

**2** For **local government budgets**, I collect information on:
- the income side: total, property, subvention, grants, and EU funds entries; and
- the expenditure side (all categories of spending).

**3** For **labour outcomes**, I pick:
- total private employment and average wages as outcome variables; and
- job offers, activity rate, and registered unemployed variables.

# Empirical Strategy: RD-DiD

Following Lalive (2008) and Persson (2020), I apply the RD-DiD:

**First Stage**: $\qquad B_{it} = \delta_i + \alpha_1 x_i + \alpha_2 R_t + \alpha_3 R_t \times \mathbf{1}\{x_i > 0\} + \varepsilon_{it}$, and $\qquad$ (1)

**Reduced Form**: $\qquad Y_{it} = \gamma_i + \beta_1 x_i + \beta_2 R_t + \beta_3 R_t \times \mathbf{1}\{x_i > 0\} + \epsilon_{it}$, $\qquad$ (2)

where

- $Y_{it} \equiv$ the labour outcome and $B_{it} \equiv$ the expenditure for province $i$ at time $t$;
- $\delta_i, \gamma_i \equiv$ FE and $x_i \equiv$ the ruling party support above the majority mark in province $i$; and
- $R_t \equiv$ the 2021 tax reform dummy.

$\hat{\beta}_3/\hat{\alpha}_3$ can be causally interpreted if the following **identification assumptions** are met:

1. conditional on $x_i$, the impact of $B_{it}$ on $Y_{it}$ is continuous;
2. $R_t \times \mathbf{1}\{x_i > 0\}$ impacts $Y_{it}$ only through $B_{it}$ (exclusion restriction); and
3. the impacts of $R_t$ and $R_t \times \mathbf{1}\{x_i > 0\}$ are additively separable.

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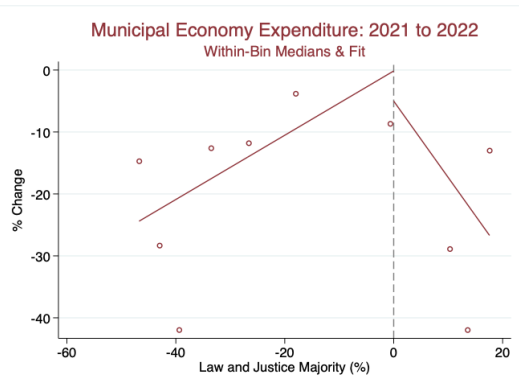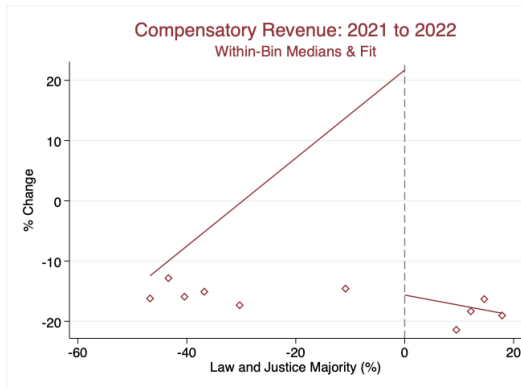
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# Outcomes
Ruling Party Support Translating to More Revenue & Expenditure

# Bibliography

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