

# Mendes et al: 'The Macroeconomic Effects of Cash Transfers: Evidence from Brazil'

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# This Paper

- ▶ everything is a variation on a 2SLS regression

$$w_{st} = \beta_0 b_{st} + \delta X_{st} + \eta_s + \lambda_t + \varepsilon_{st}$$

with the first stage

$$b_{st} = \gamma_s \bar{b}_t + \theta X_{st} + \nu_s + \xi_t + u_{st}.$$

- ▶ Here:
  - ▶  $w_{st}$  is some outcome
  - ▶  $b_{st}$  is total BF transfers paid to recipients in state  $s$ , relative to state  $s$ 's GDP
  - ▶  $\bar{b}_t$  is total BF transfers relative to national GDP
- ▶ our goal is to estimate  $\beta_0$  but we worry that  $\text{cov}(b_{st}, \varepsilon_{st}) \neq 0$

# This Paper

- ▶ instrument relevance:  $b_{st}$  is partially predicted by national BF payouts  $\times$  state-specific coefficient
  - ▶ is  $\gamma_s$  known?
  - ▶ typical “Bartik” papers construct the instrument from e.g. observed industry shares at  $t = 0$  in each location, multiplied by observed national industry-specific growth rates
  - ▶ first stage here is more like including state-specific interactions with national trend  $\bar{b}_t$
- ▶ why *else* does  $b_{st}$  vary?
  - ▶ localised changes in the income distribution (or takeup costs) alter the numerator
  - ▶ variations in  $y_{st}$  alter the denominator: maybe local business cycles, maybe measurement error?
- ▶ instrument validity: these things are *not* correlated with  $\varepsilon_{st}$ , state-year specific fluctuations in outcome  $w_{st}$

# Main Results

Now, we run this regression for a bunch of different  $w_{st}$ :

- ▶ local GDP growth  $\rightarrow \hat{\beta} = 2.2$ 
  - ▶ mostly about nontradeables
- ▶ local GDP/capita  $\rightarrow \hat{\beta} = 2.76$
- ▶ employment (coefficients scaled to give “jobs per R\$ 100k”)
  - ▶ formal  $\rightarrow \hat{\beta} = 3$
  - ▶ informal  $\rightarrow \hat{\beta} = 8.7$
  - ▶ total  $\rightarrow \hat{\beta} = 5.4$

# Motivation and Interpretation

- ▶ who cares about these numbers?
  - ▶ are they relevant for some policy decisions? which?
  - ▶ do they revise or confirm our views of the mechanisms of fiscal policy?
    - ▶ Pennings (2021) motivates with concerns about smoothing regional business cycles
    - ▶ can that case be made here?
- ▶ may be helpful to ask: *what is a relevant null hypothesis?*
  - ▶  $H_0 : \beta_0 = 1$ ?
  - ▶  $H_0 : \beta_0 = 0$ ?
  - ▶ in either case: why is that an interesting null?
- ▶ we are reporting “multipliers”, but no consideration of taxation
- ▶ effects are relative to other states:
  - ▶ an expansion in the receiving state?
  - ▶ or a contraction in the others?

## Motivation and Interpretation

- ▶ right now, the paper reads as “technique in search of a question”
- ▶ at least ex post, we need some coherent framework which ties these results together
- ▶ allusions to a NK model are made, but model is not presented or solved in full
  - ▶ anyway, why bring up monetary issues?
  - ▶ redistribution changes the equilibrium even in a barter economy
  - ▶ especially weird given that regional price differences is *not* an outcome in this paper!
- ▶ Brazilian setting is almost incidental - what special features of developing countries matter for these results (low productivity? weak property rights?)
  - ▶ could make more of the difference between informal sector and e.g. formal sector in rich countries

# Defending the Identification Strategy

- ▶ authors add some observable covariates  $X_{st}$ , including
  - ▶ other (non-BF) federal transfers to states
  - ▶ lagged state GDP growth
  - ▶ state-specific interactions with major export prices
  - ▶  $\hat{\beta}$  stays in the range 2 - 3
- ▶ placebo test: use state GDP, but lagged 20 years: estimate is statistically insignificant
  - ▶ this is an extreme version - seems like a straw man
  - ▶ why not one or two year lags?

## Measurement Error in $y_{st}$

- ▶ a vague but real possibility for omitted variable bias
- ▶ GDP numbers at the national level
  - ▶ constructed from multiple sources
  - ▶ involve a lot of extrapolation and smoothing
  - ▶ often revised
- ▶ what do we know about how the state-level numbers are constructed?
  - ▶ e.g. what are “net exports” for a state?
  - ▶ likely generates components in  $\varepsilon_{st}$  correlated across  $s$  and  $t$
- ▶  $y_{st}$  appears in on the LHS (in the denominator of  $b_{st}$ )
  - ▶ so this is not just a case of increasing standard errors
- ▶ would be good to check robustness by using different vintages of data



## Comparison with Microeconomic Literature on CCTs

- ▶ we know that transfers to poor households result in
  - ▶ more and better food purchases: Skoufias (2005), Angelucci, Attanasio, and Di Maro (2012) (Mexico)
  - ▶ more and better clothing, esp for children: Attanasio and Mesnard (2006) (Colombia)
  - ▶ both of these are tradeables!
- ▶ in the case of Brazil, BF does not seem to decrease labor supply: de Brauw et al. (2015)
  - ▶ as with prices, why do we not look at wages?

## References

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