The Distributional Consequences of Large Devaluations
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IMF/SNB/IMFER - Exchange Rates and External Adjustment Conference

June 25, 2016
A really great paper!
What are the distributional consequences of a large devaluation?

- Prices, through the lens of 1994 Mexican devaluation
- “Anti-poor” inflationary effect: \( \pi_{\text{poor}} / \pi_{\text{rich}} \approx 1.5 \)
  \( \equiv 10\% \) bigger loss in real income, given nominal income
- Why were consumption prices of the poor more affected?
  Poor spend more on high pass-through goods
    - large tradable share
    - tradable varieties with low distribution costs
Overview

Contribution:
- Effect of a common aggregate shock on relative prices if there are heterogeneous agents:
  - heterogeneity matters
  - different heterogeneities interact: amplification
    (highly tradable + low distribution cost vs. non-tradable + high distribution cost)
- Not only devaluation, but financial shocks, technology shocks, etc.
- Implications of interactions of heterogeneity for adjustment?
- Systematically study interaction of consumption baskets, distribution costs following a large devaluation
Outline

- Summary:
  - 2 Facts:
    - “within” and “across”
  - Mechanism
- Comments, suggestions
Fact 1

Distributional effect “across” goods:

\[ \hat{P}^h_{across,t} = \sum_{g \in G} \omega^h_g \hat{P}^g_{t} \]

- Price index for household \( h \) given common prices for goods \( \hat{P}^g_{t} \)
  - micro prices from Bank of Mexico CPI DOF
  - weights and income from ENIGH survey

- Do the poor households consume systematically high-\( \pi \) goods?

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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>8</th>
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Fact 2

Distributional effect “within” goods:

\[ \hat{P}_{within, t} = \sum_{g \in G} \omega_g \hat{P}_{g, t} \]

\[ \hat{P}_{g, t} = \sum_{v_g \in g} s_{v_g}^h \hat{P}_{v_g, t} : \text{price index for household } h \text{ over varieties } v_g \]

Do the poor households consume systematically high-\(\pi\) varieties?

Problem:

- Shares \(s_{v_g}^h\) not observable – two steps:
  1. Show: Income positively correlates with unit prices
  2. Assume: High-income households consume high-priced varieties

- Construct high-income + above-median-price index (the rich), and low-income + below-median-price index (the poor)
1. $corr(Y, P) > 0$
Mechanism

- Burstein et al. (2005): Non-tradeables, distribution and local costs explain low CPI response
- Authors: Distribution channel x (income, consumption heterogeneity) explain across and within effects
Mechanism

“Across” effect:
- Tradeables have high pass-through (PT)
- Tradeables with low distribution and local costs have high PT
- The poor consume more tradeables
- The poor consume tradeables with lower distribution shares
Mechanism: Tradeable shares by income
Mechanism

“Within” effect:
- Same as “Across” effect but at variety, not good level
- Varieties with low distribution margin have larger relative price increases
- The poor consume varieties with lower distribution margins
- Empirically, authors get variety distribution margins via identical goods
- Then, predict price changes
Mechanism
Comments

Why is there so little substitution?

- Would expect expenditure switching: \( \sum_{g \in G} \hat{\omega}_g h P_{g,t}, \sum_{v_g \in g} s^h_{v_g} P_{v_g,t} \)
- Coibion et al. (AER, 2015): consumers shop around retailers
- Aren’t some (reference-priced) tradeables very substitutable?
- Authors argue no effect from substitution: 96 vs 94 weights

- Depends on model. Perhaps not surprising?
  - (Fixed) switching costs are very high for the poor
  - Low levels of income, e.g. 1st decile ca. USD 55
  - Integer constraints?
What is the role of price stickiness?

Notion of price stickiness consistent if there is heterogeneity in price stickiness across varieties:

- High-priced varieties are high-quality varieties
- Highly variable markups
- Observed sticky prices for high quality varieties (Kim, 2016)
- Consistent with authors’ observation: if not conditioning on price changes, inflation difference between poor and rich widens. Rich consume more sticky-price goods.
1 = low price goods, 4 = high price goods
One additional explanation:

- Production structure of consumption of high-income tradeables may differ.
- Cost hedging: produced by large multinationals, using Mexican inputs. Low pass-through.
- Evidence in Amiti et al. (AER, 2014)
Minor comments:

- What happens during a large appreciation?
  - Pass-through may be asymmetric.
  - Do the poor now gain disproportionately more, or less?
    Empirical question. Use Economist data?

- What happens in the years following the crisis? 1996-1998? Mean reversion?

- Break-down of the top 10%: what happens to the top 5%, the top 1%? Very steep slope in tradable share for top decile.