Bart Hobijn
Discussion of
Inflation at the Household Level
Greg Kaplan and Sam Schulhofer-Wohl
Stylized facts rediscovered using KNCP

Price level differences

- **Outlet bias**: Households buy at different outlets
  Faber and Fally (2017)

- **Regional price differences are substantial**
  Moretti (2013)

Inflation rates

- **Regional variation and Phillips curves**
  Hurst, Beraja, Fuster, Vavra (2016)

- **Household level inflation rates**
Outlet bias only focuses on price!
Stylized facts rediscovered using KNCP

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- **Household level inflation rates**
Confirm and extend set of facts

- Very large variation in household level inflation rates.
- Variation mainly due to inflation differences within expenditure categories (strata)
- Distribution of inflation rates moves in lockstep with overall inflation
- Little persistence in household level inflation rates
- Substantial substitution across strata
- Poor have 1 percent higher inflation

Hobijn Lagakos (2005)
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Hobijn Lagakos (2005)
### Four relevant spending categories

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>t</th>
<th>t+4</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>Spending on same UPC</td>
<td><img src="image" alt="OREO" /></td>
<td><img src="image" alt="OREO" /></td>
</tr>
<tr>
<td>II</td>
<td>New goods / cross-UPC substitution</td>
<td><img src="image" alt="Coca Cola" /></td>
<td><img src="image" alt="Coca Cola" /></td>
</tr>
<tr>
<td>III</td>
<td>Infrequent purchases (durable goods)</td>
<td><img src="image" alt="Washing Machine" /></td>
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</tr>
<tr>
<td>IV</td>
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- **I**: Spending on same UPC
- **II**: New goods / cross-UPC substitution
- **III**: Infrequent purchases (durable goods)
- **IV**: Not included

- Slight difference from CPI
- In CPI item is defined as an outlet-ELI combination

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Date: 2017-03-31

SF Fed - discussion Kaplan Schulhofer-Wohl
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Present fraction of spending that is matched over 4 quarters. Does it depend on demographics or income?
Four relevant spending categories

I. Spending on same UPC

II. New goods / cross-UPC substitution

III. Infrequent purchases
   (durable goods)

IV. Fashion
   Liegey (1994)
Four relevant spending categories

I. Spending on same UPC

II. New goods / cross-UPC substitution

III. New goods bias

Bils (2009)

IV. Not included

Hobijn - 2017-03-31
SF Fed - discussion Kaplan Schulhofer-Wohl
Four relevant spending categories

- **I**
  - Spending on same UPC

- **II**
  - New goods / cross-UPC substitution

- **III**
  - Cross-UPC substitution that is not captured in household level inflation
    - Broda and Romalis (2008)

- **IV**

(t)
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**Price index theory really not applicable to intertemporal optimization problem**

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Policy implications…

Monetary policy

- **Aggregate index of inflation representative of broad changes in price level**
  - Cross sectional distribution of prices moves in lockstep with published inflation measure.

Other policies

- **Demographics and income-dependent indexation of benefits and tax brackets**
  - Persistent differences across groups suggest different COLAs.
  - However, not much persistence at the individual household level.