Discussion on
MPC Heterogeneity in Europe: Sources and Policy Implications

Miguel Ampudia,
Russell Cooper,
Julia Le Blanc,
Guozhong Zhu

Frédérique Savignac (Banque de France)

CEPR-BdF Conference - Heterogeneous Agents or Heterogeneous Information
(5-6 December 2019)
Great paper!

Main contribution: accounting for heterogeneity across households and across countries in estimating MPC (income and asset returns shocks) and for MP transmission

Highly relevant policy implications for monetary policy transmission in the Euro area

It is also a nice and useful contribution for the debate about monetary policy and inequality (despite some limits: partial equilibrium, exogeneity of monetary policy shocks)
1. A rich life-cycle model of households choices

⇒ estimation of country-specific structural parameters

- Individual decisions on stock market participation, portfolio adjustments and consumption/savings

- Simulated method of moments approach (data: Household Finance and Consumption Survey): moments of the structural estimation based on country specific regressions and accounting for age and education attainement

  • Age income-profile, by country and educational attainement: exogenous income process, estimated from the European Community Household Panel ECHP

  • Income risk: country and education specific - Persistent and transitory shocks estimated based on the residuals of the income process regressions

  • Stock returns: country specific (data: 1930-1992)
2. MPC: heterogeneous responses to income and returns shocks

Features of the model: discrete choice, borrowing constraint, consumption floor, bequest as a luxurious good

<table>
<thead>
<tr>
<th>MPC out of income</th>
<th>Low income low education (0.8% to 0.4%)</th>
<th>&gt;&gt;</th>
<th>High income high education (around 0.1%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain and Italy</td>
<td>&gt;&gt;</td>
<td></td>
<td>No cross-country differences</td>
</tr>
<tr>
<td>Germany and France</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small shocks &gt; large shocks</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **MPC out of stock return shocks (for stock market participants):**
  - Comparable to income shocks responses
  - Germany > Spain, Italy and France
3. Implications for monetary policy transmission

=> Additional ingredients:

✓ Income response to monetary policy shocks: Lenza and Slacalek (2018)

✓ Effect of monetary policy shocks on stock returns: country specific VAR

☐ Most of the MP transmission: income channel through the consumption reaction of the poor (cross-country differences due to heterogeneity in the income response to monetary policy shocks)

☐ Stock return channel for asset market participants

☐ Non linearities: larger consumption reaction to MP easing (compared to MP thightening) for FR and DE. Opposite for ES.
What could be missing?

- Focus on a specific channel of monetary policy: MPC out of labour income shocks and risky assets returns

- **Housing assets** (*cheap comment, and more difficult to introduce in the model!*):
  - Main asset for most households (62% of HH total assets in DE and FR, 77% in IT)
  - Cross-country heterogeneity in homeownership rate (44% in DE, 83% in ES)

- **Debt behavior** (Cloyne, Ferreira, Surico, 2019)

- One source of income: labour + social transfers.
  - **Financial income?** (Coibion, Gorodnichenko, Kueng, Silvia, 2017),
  - **Change in net income due to maturing assets and liabilities?** (Auclert 2017)
Assets composition and debt to assets ratio by net wealth decile

Source: HFCS-w2
Debt to asset ratio set at 50% for D1 (DE, ES, IT) for graphical reasons.

Legend:
- Main residence
- Other real estate property
- Other real assets
- Mutual Funds, Shares, Managed accounts
- Bonds
- Self employment business
- Deposits
- Voluntary pension/whole life insurance
- Other financial assets
- Debt
Illustration: Housing wealth effects matter (at least in some countries)

- Micro based estimates of the Marginal Propensity to Consume out of wealth (HFCS, SILC, HBS surveys), Garbinti et al. (2019)
- Instrumented panel regression approach (instruments are based on aggregate asset prices developments and on households’ asset composition).

<table>
<thead>
<tr>
<th>Specification</th>
<th>Belgium</th>
<th>Cyprus</th>
<th>Germany</th>
<th>Spain</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPC</td>
<td>0.031 ***</td>
<td>0.006 ***</td>
<td>0.011 ***</td>
<td>0.020 ***</td>
<td>0.028 ***</td>
</tr>
<tr>
<td>Std. Err.</td>
<td>0.007</td>
<td>0.004</td>
<td>0.004</td>
<td>0.006</td>
<td>0.004</td>
</tr>
<tr>
<td>Fstat</td>
<td>22.3</td>
<td>45.0</td>
<td>33.9</td>
<td>15.8</td>
<td>90.9</td>
</tr>
<tr>
<td>SW Fstat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| MPC                                  | 0.048 ***| 0.004 ***| 0.008 | 0.030 ***| 0.028 ***|
| Std. Err.                            | 0.014    | 0.002   | 0.006 | 0.005   | 0.005   |
| Fstat                                | 28.2     | 45.3    | 9.2   | 19.5    | 71.7    |
| SW Fstat                             | 2.4      | 43.2    | 2.2   | 22.0    | 34.1    |

| MPC                                  | 0.009    | 0.062 ***| 0.042 **| 0.015   | 0.076 * |
| Std. Err.                            | 0.010    | 0.015   | 0.018 | 0.018   | 0.040   |
| Fstat                                | 11.7     | 23.7    | 5.6   | 2.8     | 3.5     |
| SW Fstat                             | 7.6      | 37.8    | 2.5   | 3.3     | 3.9     |

| Number of households                  | 600      | 275     | 775    | 1,051   | 1,610   |

Subsamples restricted to households who reported that their income was about normal both in wave 1 and in wave 2. Fstat: standard F statistics from the first-stage regressions. SW Fstat: Sanderson-Windmeijer F statistics.
Control variables: changes between wave 2 and wave 1 in age and age squared of the reference person, employment status (whether the reference person is retired (Yes/No), unemployed (Yes/No)), and household composition (number of adults and number of children).
Source: Garbinti, Lamarche, Lecanu, Savignac (2019)
Implications for monetary policy transmission

- **Unemployment**: Income response to MP shock (Lenza and Slacalek, 2018): effects on wages + probability of employment (huge cross-country differences)

=> In your LC model: no unemployment. **Would the consumption reaction also be affected by accounting for the extensive margin?**

- In the end: **MP effects on income, wealth and consumption distributions.**

⇒ Could your estimates provide some insights on the effect of MP on income, wealth and consumption inequalities? (Attanasio and Luigi Pistaferri, 2016; Stiglitz-Sen-Fitoussi Report for the European Commission)