Households’ Expectations and Macroeconomic Outcomes – Evidence from the Euro Survey

Isabella Moder
Oesterreichische Nationalbank

3rd Research Conference of the NBRM
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This presentation is based on joint work with Elisabeth Beckmann (OeNB). The views expressed in this presentation are exclusively those of the authors and do not necessarily reflect those of the OeNB or the Eurosystem.
OeNB Euro Survey – Gathering Data on the Use of the Euro

- Geographical scope of the OeNB Euro Survey
  - Six EU Member States: Bulgaria, Croatia, Czech Republic, Hungary, Poland and Romania
  - Four (potential) EU candidate countries: Albania, Bosnia and Herzegovina, Macedonia and Serbia

- Conducted twice a year since fall 2007; latest survey wave: fall 2013

- Representative country samples
- Face-to-face interviews
- At the level of individuals
The Questionnaire – Main Contents

- Foreign currency cash holdings
  Dissemination, currency composition, amounts, motives

- Foreign currency deposits
  Dissemination, currency composition, amounts, motives

- Foreign currency loans
  Dissemination, currency composition, motives

- Payment behavior
  Personal vs. observed payment behavior

- Economic sentiments
  Assessment of general economic situation, perceived and expected inflation, exchange rate expectations, trust in currencies and banking sector, trust in institutions

- Special topics
Questions Used Regarding Expectations

- "Over the next five years, the economic situation of [my country] will improve."
- "Over the next 12 months, I expect the financial situation of my household to get better."

- Possible answers: Strongly agree, agree, somewhat agree, somewhat disagree, disagree, strongly disagree

- Balance statistics

  \[ \text{Balance} = (\text{strongly agree} + 0.7 \times \text{agree} + 0.3 \times \text{somewhat agree}) - (0.3 \times \text{somewhat disagree} + 0.7 \times \text{disagree} + \text{strongly disagree}) \]

  \[ \rightarrow \text{Balance statistics can range from 100 (all strongly agree) to -100 (all strongly disagree)} \]
Some Stylized Facts – “Household” Bias

Development of expectations regarding households’ financial situation and national economy

Bulgaria
Balance statistics

Macedonia
Balance statistics

Serbia
Balance statistics

Hungary
Balance statistics

Source: OeNB.

Isabella Moder
Summary Statistics on Expectations Regarding the National Economy

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>-9.7</td>
<td>9.9</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>-32.1</td>
<td>9.8</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>-36.2</td>
<td>8.8</td>
</tr>
<tr>
<td>Croatia</td>
<td>-31.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>-14.0</td>
<td>9.8</td>
</tr>
<tr>
<td>Hungary</td>
<td>-27.0</td>
<td>15.7</td>
</tr>
<tr>
<td>Macedonia</td>
<td>-6.7</td>
<td>8.6</td>
</tr>
<tr>
<td>Poland</td>
<td>-6.1</td>
<td>12.5</td>
</tr>
<tr>
<td>Romania</td>
<td>-27.7</td>
<td>18.0</td>
</tr>
<tr>
<td>Serbia</td>
<td>-30.0</td>
<td>14.3</td>
</tr>
</tbody>
</table>

- High cross-country heterogeneity in levels, some cross-country heterogeneity in variance
- No great variation across regions within countries
- No correlation with income per capita but, at the individual level, high-income households are more optimistic
Movements Increasingly Homogeneous since the Onset of the Crisis

Standardized balance statistics on expectations regarding the national economy

Source: OeNB (authors' calculations).
Expectations and Macroeconomic Outcomes – Literature Overview

- Relationship between expectations and macroeconomic variables
  - Precautionary savings motive (-) vs. permanent income hypothesis (+)
  - Ludvigson (2004): Little support for precautionary savings motive
  - Souleles (2004): High- and low-income households are affected differently by shocks
  - Akerlof and Shiller (2010): Change in confidence may trigger change in economic expectations \( \rightarrow \) should be taken into account for explaining boom-bust cycles

- Using expectations for forecasting
  - Studies mainly focused on the U.S.A.
  - Kuzmanović and Sanfey (2012): Consumer expectations help to explain retail turnover and imports (and thus consumption/GDP) in Croatia
Expectations and Macroeconomic Outcomes – Method

- **Compute Spearman correlation coefficients between**
  - expectations and previous consumption/GDP growth
  - expectations and subsequent consumption/GDP growth

- **Answer indicates whether**
  - expectations correlate with macroeconomic outcomes
  - expectations are useful for forecasting

Euro Survey Spring Wave
March/ April

Q4 (previous year)  Q1  Q2  Q3

“previous consumption/ GDP growth”  “subsequent consumption/ GDP growth”
Expectations and Macroeconomic Outcomes – Results I

<table>
<thead>
<tr>
<th>Expectations regarding the national economy</th>
<th>Spearman correlation coefficients</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subsequent consumption growth</td>
<td>Subsequent GDP growth</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.357</td>
<td>0.042</td>
</tr>
<tr>
<td>Hungary</td>
<td>-0.321</td>
<td>0.515</td>
</tr>
<tr>
<td>Poland</td>
<td>0.679</td>
<td>0.503</td>
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<tr>
<td>Bulgaria</td>
<td>0.107</td>
<td>0.176</td>
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<tr>
<td>Romania</td>
<td>-0.536</td>
<td>0.321</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.571</td>
<td>0.43</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>.</td>
<td>0.667</td>
</tr>
<tr>
<td>Macedonia</td>
<td>0.5</td>
<td>0.317</td>
</tr>
<tr>
<td>Serbia</td>
<td>0.357</td>
<td>0.358</td>
</tr>
</tbody>
</table>

Source: OeNB Euro Survey (authors' calculations). No data available for Albania.
Expectations and Macroeconomic Outcomes – Results II

- Correlation between expectations and subsequent consumption growth positive for most countries
- Correlation between expectations and subsequent GDP growth positive for all countries
- Picture less clear regarding previous consumption and GDP growth

Conclusions:
- Correlation between expectations and macroeconomic outcomes heterogeneous at a cross-country level
- Positive correlations point to permanent income hypothesis
- Expectations have predictive power and can be used for forecasting
Expectations and Macroeconomic Outcomes – Open Questions

- What explains the observed country-specific differences?
- Does the relationship between expectations and macroeconomic variables change over time?
- Which direction does the causality go between expectations and macroeconomic outcomes?
- What drives expectations?
Expectations and Macroeconomic Outcomes – Outlook

Note: Values are standardized to correct for country-specific properties. “Neutral“ is defined as a value within the range of zero +/- 1 standard deviation.
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Annex I: The OeNB Euro Survey – Further Information

- OeNB publication: Focus on European Economic Integration
  Regular contribution (every 6 months) on recent results of the OeNB Euro Survey
- ECB Report “International Role of the Euro” with OeNB contributions
- ceeo.oenb.at
  - Design of the survey in greater detail
  - Main results of recent surveys
  - Sentiment indicators
  - References to publications
Annex II: OeNB Euro Survey – Empirical Papers

Euroization

Foreign Currency Cash Holdings / Payment Behavior

Foreign Currency Deposits
Annex II: OeNB Euro Survey – Empirical Papers

Foreign Currency Loans


Economic Sentiments

• Beckmann, E., Scheiber, T., 2012. The Impact of Memories of High Inflation on Households’ Trust in Currencies. *Focus on European Economic Integration, Q4/12, 80–93.*