Financial Heterogeneity and Monetary Union

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The views expressed herein do not necessarily reflect the views of the Federal Reserve Bank of San Francisco or the Federal Reserve System.
Why diverging recovery in euro area?

• A common narrative:
  – Excessive borrowing fueled unsustainable booms of periphery (PIIGS) before crisis
  – Borrowing cost surged after crisis; capital flows reversed
  – Currency devaluation not an option (downward nominal wage rigidities did not help)
Periphery borrowing costs surged after crisis
Capital flows reversed direction since crisis

Current account

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<th>Percent of GDP</th>
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<td>-15</td>
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<thead>
<tr>
<th>Year</th>
<th>Italy</th>
<th>Greece</th>
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<tbody>
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<td>2000q1</td>
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<td>2005q1</td>
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Relative prices rose in periphery…
...contributing to diverging recovery paths
Why did periphery firms *raise* relative prices after crisis?
Model mechanism

• Two-country extension of GSSZ (2017)
• Customer base: deep habit (Ravn, et al)
  – Italian espresso, Greek beach, and such
  – Long-term relation → forward-looking pricing decisions
  – Short-run demand elasticity different from long run
• Financial frictions interact with customer base
  – Firms facing tightened financial conditions raise markup to maintain cash flow
  – Tradeoff: current profit vs. future market share
  – Home firms face tighter constraints → home relative price rises → real appreciation → things get worse
  – Home firms lose market share to foreign firms → things get even worse
Evidence for model mechanism

• GSSZ (2017) provide micro evidence (goods/firm) for interplay b/n customer base and financial friction

• Here, cross-country Phillips curve evidence:
  – CDS spreads correlated with prediction errors of Phillips curve in periphery, but not in core
  – Widening of CDS spreads raises average markups in periphery, but not in core

• Caution: Slope of Phillips curve hard to identify
  – Endogenous policy responses to demand shocks \(\rightarrow\) neg. corr b/n inflation and output gap (McLeay-Tenreyro, 2018)
  – Blanchard, et al. (2015): Phillips curve has flattened since early 1990s
  – Regional variations in an MU may help diff out endog. monetary policy responses (Fitzgerald-Nicolini, 2014)
Reallocation implications

- Low productivity firms face rely on costly equity finance, high productivity firms unconstrained

- Adverse shock: low productivity firms raise markup and lose market share → reallocation to more productive firms → aggregate TFP improves

- Aggregate TFP countercyclical
  - Mitigate adverse shocks: macro stability and welfare
  - Evidence?
Alternative form of financial frictions

• Credit constraints:

  – High-productivity firms face binding credit constraints

  – Adverse shock reducing borrowing capacity would hurt productive firms, allow unproductive firms to operate

  – Reallocation reduces aggregate TFP, amplifying initial shocks (Liu and Wang, 2014)

  – With sticky prices, lower TFP pushes up real marginal cost and inflation: cost channel

  – Similar implications to GSSZ, but diff reallocation effects
Optimal policy and welfare

• Welfare effects of joining MU for periphery not obvious:
  – Firms face adverse financial shocks, but terms of trade improvement benefits consumers
  – Reallocation across domestic firms may improve TFP?

• GSSZ use Taylor rule as benchmark policy. More natural benchmark: optimal independent policy (with flexible FX)

• Paper mentions “pecuniary externality” in intro but no discussion in text

• Other policy regime: optimal policy coordination (with flex FX) vs. indep policy
  – Terms-of-trade externality (Pappa, 2004; Liu-Pappa, 2008)
Conclusion

• Well written, pleasure to read

• Interplay between financial frictions and customer base a plausible story for diverging recovery paths of periphery vs core

• A good starting point for future studies
  – Quantitative importance of the channel
  – Optimal independent monetary policy, optimal policy coordination, or currency union?