Resurrecting the Role of the Product Market Wedge
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An excellent + really important paper.
Why?
The effect of shocks depends on the frictions in the economy:

\[
\text{Shocks} \xrightarrow{\text{transmission} \atop \text{frictions}} \text{real variables}
\]

Wedges:

- quantify the “extent of our ignorance” in a given optimizing framework
- guide our modeling efforts about these frictions
Among possible wedges, the labor wedge, is important:

\[ RAW_t = MPN - MRS \]
\[ = MPN - W/P - (MRS - W/P) \]
\[ = \mu^P + \mu^L \]
\[ \gg 0 \]

Conventionally, attributed to “labor market wedge,” or “wage markups” (Gali et al. 2007, Chari et al. 2007, Shimer 2009, Karabarbounis 2014)
BKM (2015):
Better Measurement: Self-employed, intermediate input share

⇒ The Return of the Product Market Wedge (PMW)

“Labor Wedge”

50% Labor Market Wedge

50% Product Market Wedge
Product market frictions matter for business cycle.

A call to arms!
Study not only labor market but pricing frictions.
No major criticism - three comments:

1. Are wages allocative?
2. Evidence for importance of product market wedge
3. A few product market frictions
1. Are wages allocative?
Careful & clever work by the authors.
Are wages allocative?

- AHE not the marginal cost of labor.
- Alternative measures: NH, UCL (Kudlyak 2014).
- BKM convincingly focus on self-employed:
  - Absence of labor market frictions: $\mu^L_t = 0$
  - Labor wedge $RAW_t$ only measures $\mu^P_t$.
  - Since $MRS = W/P$, $\mu^P_t = \log(MPN_t) - \log(MRS)_t$. No wages.
- Potential issue: Labor market frictions for the unemployed. Are wages of self-employed allocative? Lumpiness of contracts: choose hours?
- Not in aggregate hours.
Discussion

Are wages allocative?

- Self-employed hours:
Discussion

Are wages allocative? An observation

- Results on labor wedge conditional on labor market policy.
- Germany during the Euro Crisis: “Short-Term Work.”

- Little distortion in consumption-leisure choice.
- Implies bigger statistical role for product market wedge but labor market friction unimportant?
Discussion

2. Evidence for importance of product market wedge
Related work consistent with countercyclical PMW.
Evidence for importance of PMW:

- Gali et al. (2007): robustness check, “Bils Adjustment,” allows for difference of marginal and average wage & finds about 1/3 of labor wedge due to PMW (correlation with wedge: 0.45; ≈ 0 in baseline)

- Basu and House (2015): estimate New-Keynesian DSGE model using NH and UCL wage measures, conclude “price rigidity likely plays a substantially more important role than wage rigidity in governing economic fluctuations.”

- Bhattarai, Eggertsson and Schoenle (2013): estimate Gali-Smets-Wouters with identified wage markup shocks. Effect of increased price/wage flexibility: Increase in output volatility is due to price markup shocks, not wage markup shocks or labor supply shocks. Suggests importance of product market frictions.
Evidence from financial crisis consistent with a countercyclical PMW:

- Despite massive economic slack muted producer price dynamics.
- Based on Gilchrist et al. (2014), Gilchrist et al. (2015) and Gilchrist and Zakrajsek (2015) at Jackson Hole.
Dynamics of output and inflation in the U.S.:

What accounts for the resilience of inflation in the face of significant and long-lasting economic slack?

The question:

In particular, the absence of more substantial deflationary pressures during the “Great Recession” is difficult to square with the Phillips curve common to most macroeconomic models.

Our answer:

- Economic forces that dampen the response of inflation to adverse demand or financial shocks reflect the interaction between customer markets and financial frictions:
  - Customer markets: markets in which customer base is “sticky” and an important determinant of firm’s assets and firm’s ability to generate profits
  - Financial frictions: systematic countercyclical wedge between the cost of external and internal finance due to asymmetric information or moral hazard problems in financial markets
Relatively mild disinflation in Eurozone since 2008:

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<td></td>
<td>Core</td>
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<td>Core</td>
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<tr>
<td>Avg. inflation (%)</td>
<td>1.58</td>
<td>3.34</td>
<td>1.22</td>
<td>0.66</td>
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<td>Avg. output gap (%)</td>
<td>0.32</td>
<td>0.81</td>
<td>−1.38</td>
<td>−4.48</td>
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Countercyclical price markups in Eurozone periphery:
- Price markups $\sim 1/$labor share (Gali et al. 2007, Karabarbounis 2014).
- Eurozone 2005-2014:
3. A call to arms … next step: which pricing frictions?

Bring IO into macro.

Two candidates:

- Financial frictions/customer markets.
- Interactions of heterogeneous frictions with heterogeneous pricing frictions.
Financial frictions in customer markets

- Empirical evidence from matched Compustat firms to PPI data:
  - Financially weak (strong) firms increase (lower) prices during 2008-2009 financial crisis

- Similar finding for Euro zone financial frictions and Phillips curve residuals (Gilchrist et al. 2015), also de Almeida (2015)
Discussion

- Model generates countercyclical price markups
- Labor wedge following financial shock:

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real mechanism reinforces labor wedge
large effect
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Heterogeneity:
“. . . it is conceivable that the assumption of a representative household and a representative firm neglects an important role for microeconomic heterogeneity. . . Although it is possible that some other non-representative agent model will deliver a countercyclical labor wedge, this approach currently does not seem promising.” (Shimer 2009)
Interactions of heterogeneous frictions with heterogeneous pricing frictions

  - DSGE model with heterogeneity in price stickiness, interacted with heterogeneous I/O linkages and consumption weights
    "Acemoglu x Gabaix x NK model"
  - Interaction implies potentially massive amplification of shocks:
    - Sectoral price stickiness x sectoral connectedness x sectoral size
  - Calibration to U.S. micro data following monetary shock:
    Not so much I/O structure, but underlying heterogeneity in price stickiness generates countercyclical product market wedge
  - Ongoing work for idiosyncratic shocks
Discussion

Representative vs. heterogeneous firm labor wedge

Markups, Case 2

Markups, Case 6

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Summary:

Very excited about BKM (2015). Super important paper

Will lead to lots of future work