Comments on “A Model of the Fed’s View on Inflation” by Thomas Hasenzagl, Filippo Pellegrino, Lucrezia Reichlin and Giovanni Ricco

Frank Packer
Bank for International Settlements

ABFER 6th Annual Conference:
Singapore, 24 May 2018

The views expressed are my own and do not necessarily reflect those of the BIS
The Hasenzagl et al paper: A nice review of the literature and presentation of new empirical work

- Support for the “Fed view” of three factors driving inflation (a) Trend reflecting expectations; (b) the degree of economic slack; and (c) independent oil price component
- Phillips curve is well identified; though CPI inflation also has cycle unrelated to real variables capturing correlation of inflation expectations and oil prices.
- Trend inflation captured by SPF expectations which are unbiased, while University of Michigan consumer expectations are not.
- The Phillips curve trade-off is “only a small component of inflation dynamics”; “disentangling Phillips curve from oil cycle” can explain many inflation puzzles.
- Ability of central bank to anchor expectations is limited ... because oil can “persistently affect consumer expectations independently from the state of the real economy.”
Some additional minor points/questions raised here

- The restrictions of the model
- Persistently too high household INF expectations?
- The high level of the model-based output gap
- Global factors?
Model of oil prices

\[
\begin{pmatrix}
    u_t \\
y_t \\
oil_t \\
π_t \\
uom_t \\
spf_t
\end{pmatrix}
= \begin{pmatrix}
    1 & 0 & 0 \\
    δ_y & 0 & 0 \\
    δ_π & γ_π & φ_π \\
    δ_uom,1 + δ_uom,2L & γ_uom & φ_uom \\
    δ_spf,1 + δ_spf,2L & γ_spf & φ_spf
\end{pmatrix}
\begin{pmatrix}
    ψ_{t,PC} \\
    ψ_{t,EP} \\
    ψ_{t,oil} \\
    ψ_{t} \\
    ψ_{t,uom} \\
    ψ_{t,spf}
\end{pmatrix}
+ \begin{pmatrix}
    μ_{t,PC} \\
    μ_{t,EP} \\
    μ_{t,oil} \\
    μ_{t} \\
    μ_{t,uom} \\
    μ_{t,spf}
\end{pmatrix}
\]

- The model’s relation of economic activity and oil prices

- Possible to survey Fed views/statement about monetary policy and the underlying commodity cycle – to increase our comfort level with the restriction?
Household experience: Expected INF persistently too high

- Given that estimated common trend inflation (long-term expectations plus drift) seems relatively anchored..
- .. why do surprises in oil prices should affect inflationary expectations for such a long time?
- Why is the feedback from actual inflation to expectations so weak as to not mitigate these large, persistent deviations?
The model-based output gap: representative of the Fed’s view?

- The difference between the non-partisan CBO model and that emerging from the model is very large, consistently higher and with opposite signs for a large portion of the sample period.
- This suggests the Fed is consistently more optimistic than the CBO on the economy
- Do our observations of other Fed’s output gap estimates– or quoted statements - show similar discrepancies?
- Model does not include core CPI, though model-implied measure can be estimated …
- Model’s core CPI is consistently below actual in mid-1980s to mid-1990s, while model core CPI is consistently above actual in the 2000s. Any reasons that might be the case?
- Possible robustness check: possible to run the parts of the model with actual core CPI?
Global components to inflation

- Frequent explanation for inflation
  - Stylised fact that INF co-moves globally (Kearns (2016), many others)
  - Quantification of global determinants (BIS, 2016; Auer et al, 2017)

- Global factors can be incorporated into models of inflation with permanent (trend INF) and transitory (INF gap) components
  - Global shocks more important for INF gap than trend INF (Kamber and Wong, 2018)
  - Perhaps this finding is related to commodity price shocks

- Perhaps look at global factors as a robustness check?
Does the paper necessarily lead us to conclude that the Fed’s management of expectations is all that important?

- "Managing expectations, we find, has a key role"

- Is another possible interpretation that managing some expectations is not all that important ...

  - ... for even when they (UOM) get completely out of whack for an extended period, actual inflation can remain well behaved?
Much to like about the paper

- Distinguishing between the trend, which presumably is what monetary policy credibility is about, and cyclical fluctuations.
- Beyond the trend, nice decomposition of drivers of inflation into that influenced by Philips curve vs. energy prices.
- Useful spectral analysis: it is good to know which components are persistent, it helps CB communication a lot.
- It would be also useful to see a little more exploration of whether the implications of the model indeed correspond with other evidence of the Fed’s view.
References


