Discussion of “Oil Price Elasticities and Oil Price Fluctuations” by Caldara, Cavallo, and Iacoviello

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The views expressed in the slides are my own and should not be interpreted as those of the Federal Reserve Bank of Dallas or the Federal Reserve System.
What does this paper do?

- Identification of structural oil shocks
  - focus on short-run oil price elasticities of supply and demand
  - disentangle global demand shocks
- Examination on sources and impacts of oil price fluctuations
  - oil supply shocks are the main driver of price changes
  - supply shocks decrease IP in AE but raises IP in EE
What is driving the results compared to Kilian (2009)?

2. Economic activity index
3. Identification scheme
What is driving the results?

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Identification scheme in the baseline model

- The blue dot is the median estimates from many different models
Identification scheme in the baseline model (without inventory)

\[
\begin{bmatrix}
1 & -\eta_S & 0 & 0 & 0 \\
1 & -\eta_D & -\eta_A & -\eta_E & 0 \\
-\nu_Q & 0 & 1 & 0 & 0 \\
-\mu_Q & 0 & -\mu_A & 1 & 0 \\
-\psi_Q & \psi_P & -\psi_A & -\psi_E & 1 \\
\end{bmatrix}
\begin{bmatrix}
q_t \\
p_t \\
yt \\
ye_t \\
m_t \\
\end{bmatrix}
= \sum_{j=1}^{p} \alpha_j \mathbf{X}_{t-j} +
\begin{bmatrix}
u_{s,t} \\
u_{d,t} \\
u_{yt,t} \\
u_{ye,t} \\
u_{m,t} \\
\end{bmatrix}
\]

- Some zero restrictions are questionable
  - the relationship between \( y_t \) and \( e_t \)?
  - why does oil demand not respond to \( \Delta m_t \)?

- Why not imposing prior distributions as in Baumeister and Hamilton(2015)?
Diverging effects of a supply shock

Cunado, Jo, and Perez de Gracia (2015)

China

Korea

India

Indonesia
conclusion

- Very interesting paper

- Main Challenges:
  - How does the identification scheme compare to Baumeister and Hamilton (2015)?
  - What are the factors driving the key results different from previous studies?