Comments on
by Alichi, Avetisyan, Laxton, Mkhatrishvili, Nurbekyan, Torosyan and Wang

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Summary

- Paper’s topic is particularly relevant in the aftermath of the Great Recession:
  1. Hysteresis: deep recessions/strong expansions can have persistent effects on the labor market.
     - Prolonged period of high unemployment rate, unemployment duration increased, participation rate *still* below pre-GR level!
  2. Better understanding of the cyclical position of the US economy (slow recovery, missing deflation and inflation):
     - Better monetary and fiscal policy.

Contribution

1. Methodological: multivariate filter for output gap and NAIRU.
2. Empirical: smaller output gap and higher NAIRU after Great Recession.
Summary

Key equations linking the output gap and the NAIRU:

\[ \hat{y}_t = y_t - \bar{y}_t \]
\[ \hat{u}_t = \bar{u}_t - u_t \]
\[ \bar{y}_t = \bar{y}_{t-1} + g_{\bar{y},t} - \eta(\bar{u}_t - \bar{u}_{t-1}) - (1 - \eta)\frac{\bar{u}_{t-1} - \bar{u}_{t-5}}{4} + \epsilon_{\bar{y},t} \]
\[ \bar{u}_t = \rho \bar{u}_t \bar{u}_{t-1} + (1 - \rho \bar{u})u^{SS} + g_{\bar{u},t} - \xi \frac{\hat{y}_{t-3} + \cdots + \hat{y}_{t+3}}{6} + \epsilon_{\bar{u},t} \]
\[ \hat{u}_t = \rho \hat{u}_t \hat{u}_{t-1} + \tau \hat{y}_t + \epsilon_{\hat{u},t} \]
Model is estimated using a Bayesian approach.

1. Priors seem rather tight (to be fair, the authors acknowledge this).
   - Example: $p(\eta) \sim (0.7, 0.21), p(\xi) \sim (0.45, 0.18)$.
   - Posteriors: $\bar{p}(\eta) \sim (0.683, 0.029), \bar{p}(\xi) \sim (0.433, 0.027)$.
   - Prior sensitivity analysis?

   - Why not using data before 1980?
   - Quarterly frequency?
Paper partly motivated by the **uncertainty** surrounding output gap estimates.
- It would be very easy and nice to show **posterior uncertainty**.
- Comparing results to other output gap estimates (CBO, Fed, etc.) would be useful.
1. Nice paper, novel methodological and empirical contributions.
2. Robustness checks and simple extensions could potentially improve the study.
Thank you for your attention!