Discussion of

"A Model of Post-2008 Monetary Policy"

By Behzad Diba and Olivier Loisel

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A bit of monetarism into the basic New Keynesian model...

- The authors provide a simple model that qualitatively accounts for key observations about **US inflation** and **monetary policy** in recent zero lower bound (ZLB) episodes:
  - US inflation reflected neither (1) the *severe deflationary pressures* at the ZLB predicted by **New Keynesian (NK) models** nor (2) the *large inflation* due to quantitative easing (QE) implied by **monetarist models,**
  - the Fed since 2008 controls directly, and has emphasized in its communication, the **interest rate on bank reserves** (the IOR rate) and the **size of its balance sheet.**
- In their otherwise standard NK model, **bank reserves have a convenience yield** (holding reserves can reduce banking costs) and so the central bank can control both the IOR rate and the nominal stock of bank reserves.

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...their simple NK model with a "monetary-cost channel"

- Assume **Ricardian fiscal policy** and **Rational expectations.**
- The **central bank** has two independent instruments:
  - the (gross) nominal interest rate on bank reserves $i_t^m \geq 1$,
  - the quantity of nominal reserves $M_t > 0$.
- The model log-linearized around its unique steady state:

$$\hat{y}_t = E_t \hat{y}_{t+1} - 1/\sigma \left(i_t - E_t \hat{\pi}_{t+1} - r_t \right) \quad (1)$$

$$\hat{\pi}_t = \beta E_t \hat{\pi}_{t+1} + \kappa \left(\hat{y}_t - \delta_m \hat{m}_t \right) \quad (2)$$

$$\hat{m}_t = \chi_y \hat{y}_t - \chi_i \left(i_t - i_t^m \right) \quad (3)$$

- Note in the Phillips curve (2) **real reserves** $\hat{m}_t$ (by reducing banking costs) can reduce inflation.
- In (3) reserve demand $\hat{m}_t$ depends on the **opportunity cost of holding reserves** $i_t - i_t^m$, *absent "money demand shocks."*

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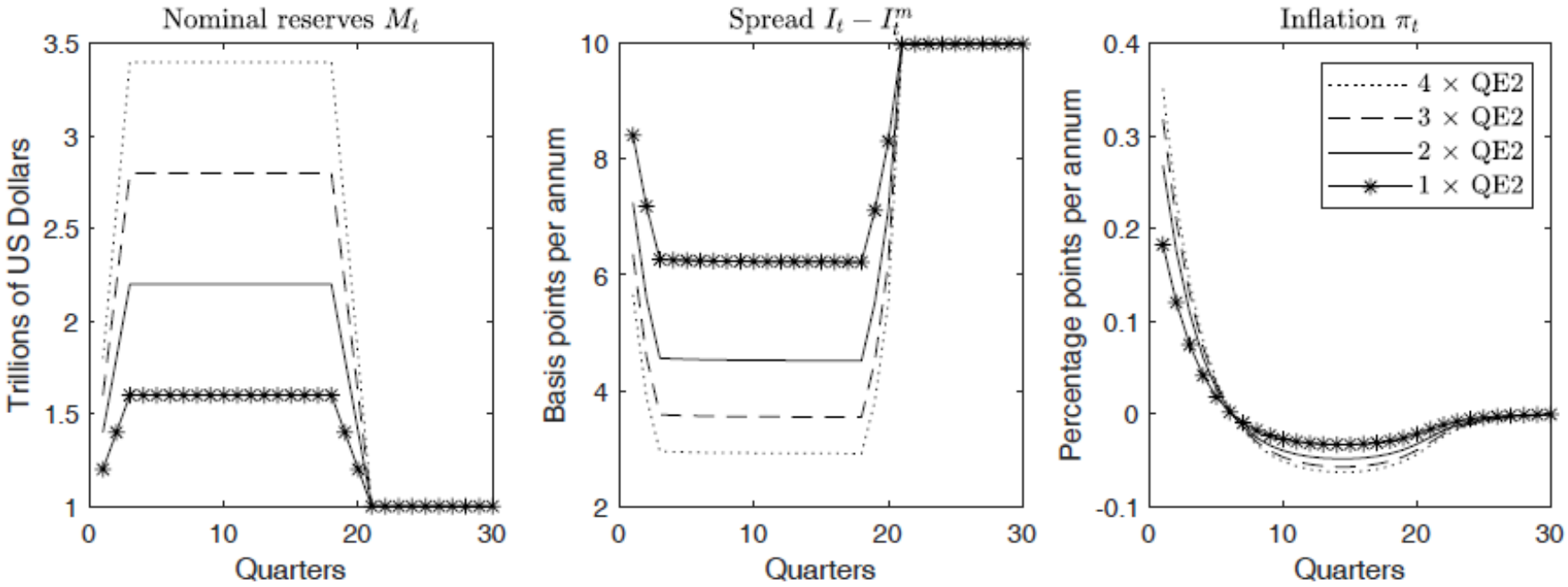
#2. Simulations of *temporary* balance-sheet expansions



- Expected increase in reserves (left panel) pushes the spread down (middle) and inflation up (right).
- Strongly **decreasing returns to scale** of quantitative easing.
- **Why temporary QE?** Permanent increase in nominal reserves is possible only if *the IOR rate is raised* (to stimulate reserve demand).

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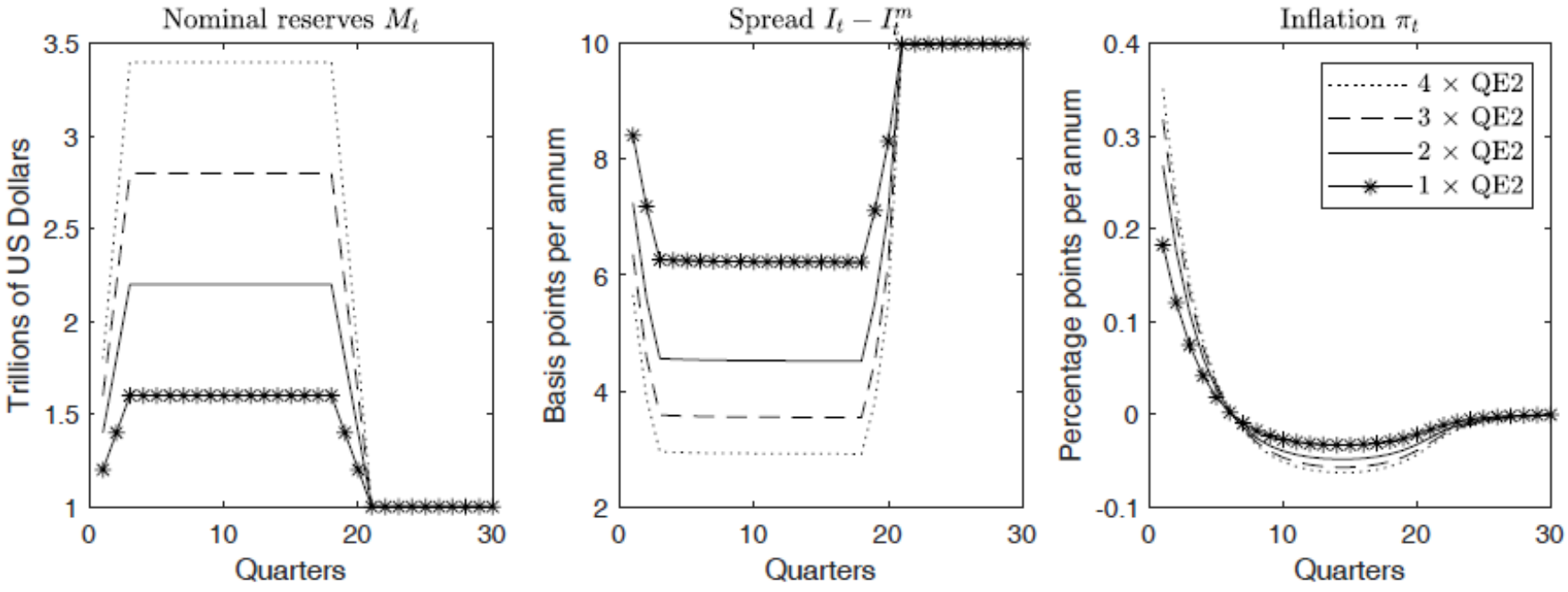

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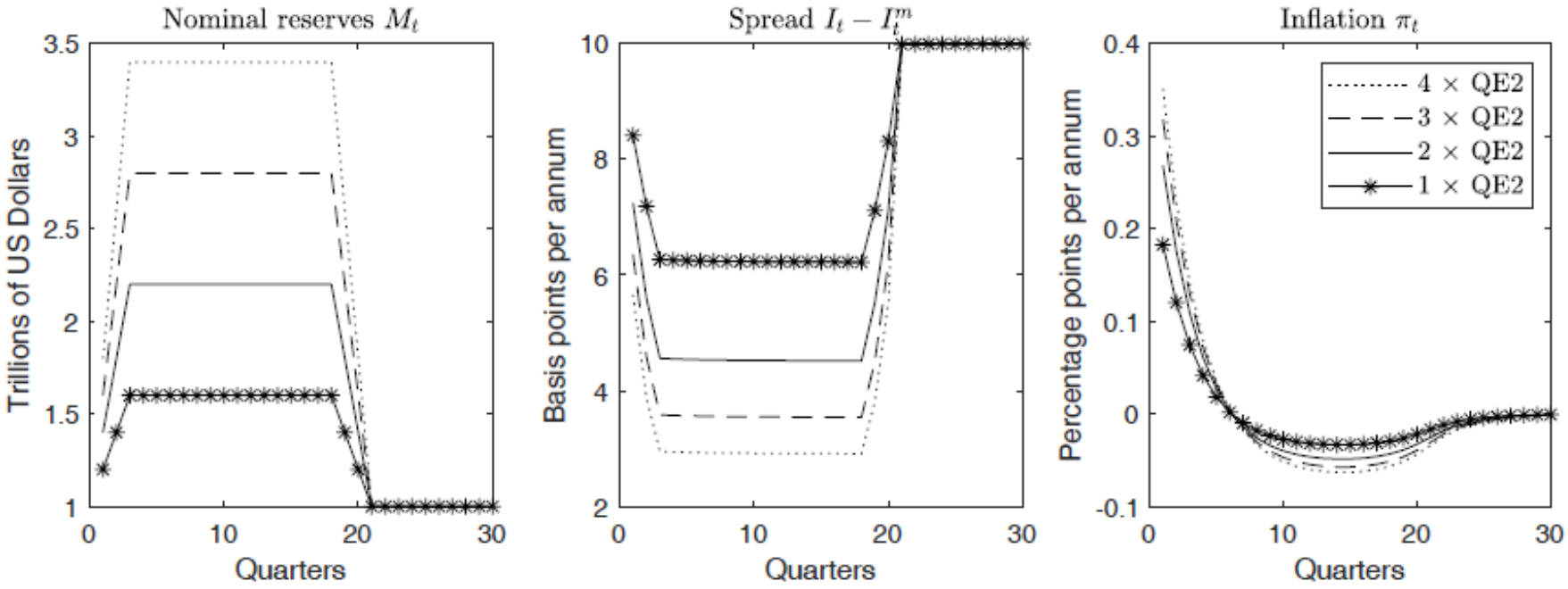

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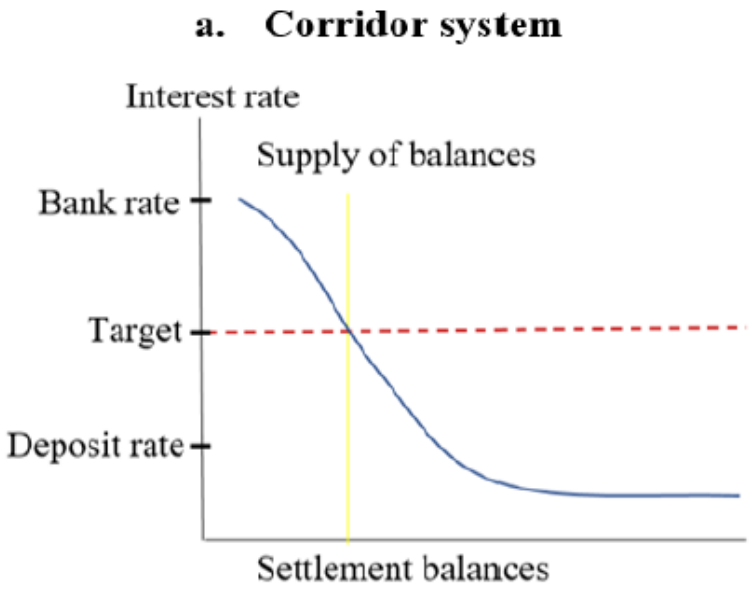

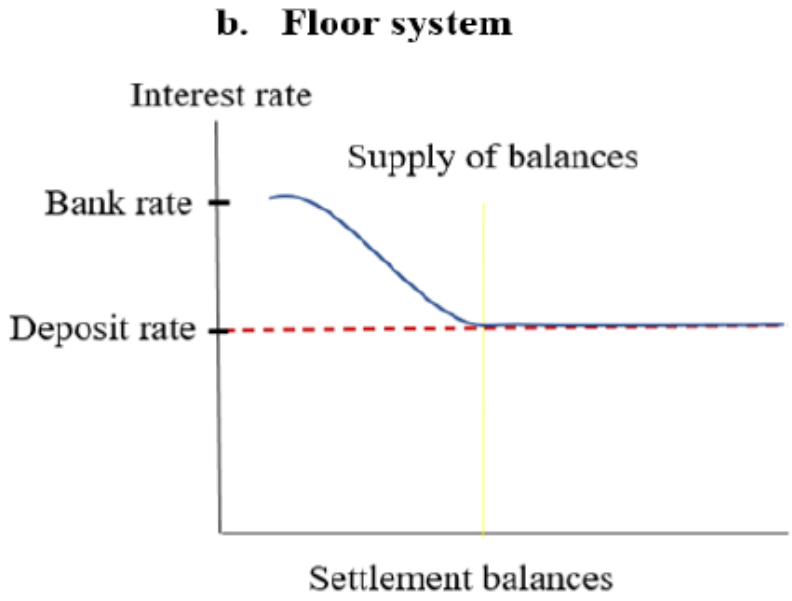

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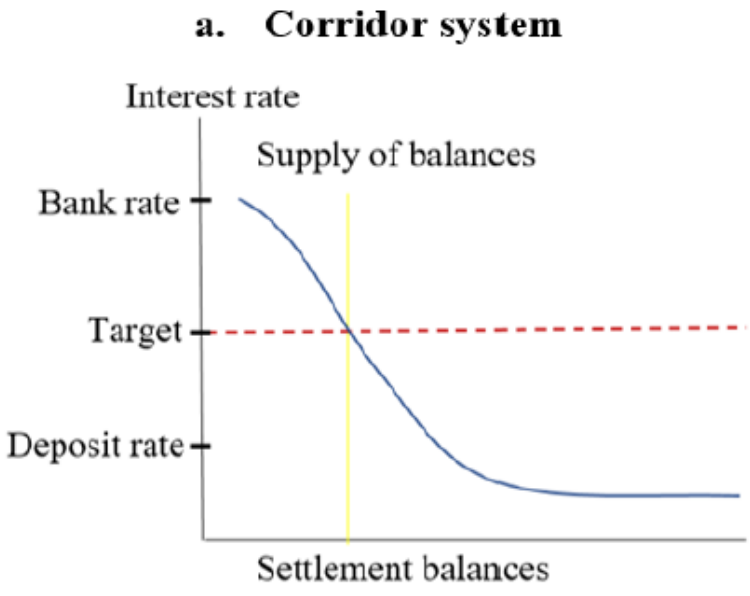

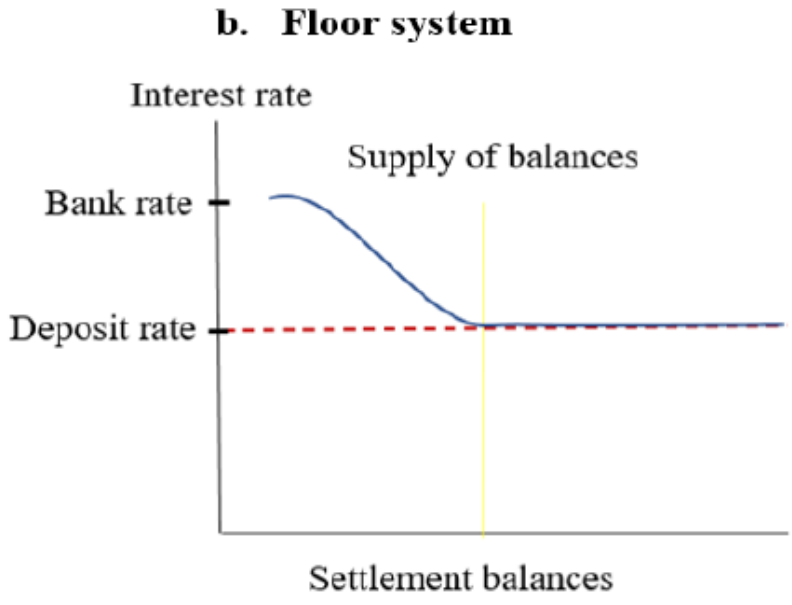

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- Overall, a relevant and insightful analysis. It informs how to adjust how central banks implement monetary policy with large balance sheets.