Discussion of

"Empowering Central Bank Asset Purchases: The Role of Financial Policies"

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The views expressed herein are those of the author and should not be attributed to the Bank of England.

1 The Paper

- Large closed-economy DSGE model with a financial sector.

- Key frictions:
  1. Exogenous, large holding cost on gov't bonds: Stocks affect returns.
  2. Minimum capital adequacy regulation (CAR).
  3. Limited liability (LILI) and deposit insurance: Matters below 4% CAR.

- Key policies:
  1. Monetary:
     - Standard policy rule (with or without ZLB).
     - Central bank asset purchases (CBAP).
  2. Regulatory CAR:
     - Level: Minimum CAR.
     - Exogenous volatility: I will not discuss this.
     - Countercyclical capital buffer: CCCB.

2 Results

The paper finds that, ceteris paribus:

1. CBAP stimulate lending: Key mechanism of the paper.

2. CCCBs dampen the credit cycle: Well known.

3. LILI encourages risk-taking in very weak banking systems:

   I will not discuss this, in the interest of time.

3 High-Level Comments

- Paper uses banking technology of Jakab and Kumhof (2015, 2018):
  - But it uses the intermediation of loanable funds (ILF) model.
  - It does not use the financing though money creation (FMC) model.

- ILF models are completely non-financial:
  - ILF **new** deposits cannot represent deposits of financial instruments.
  - Why? Deposit of a financial instrument is never a **new** deposit.
  - Why? Instrument only has value because the deposit already exists.
  - In ILF **new** deposits are therefore commodity deposits at warehouses.
  - All payments use commodities, not financial instruments.

- FMC models are financial:
  - In FMC **new** deposits are digital ledger entries.
  - They are created through loans or asset purchases.

- More and more central banks are clearly explaining the FMC mechanism: Bank of England (2014), Bundesbank (2017), Norges Bank (2017), Reserve Bank of Australia (2018).
- For this paper the use of an ILF model has major implications.
- This paper's model:
  - Everyone makes payments by moving physical commodities around.
  - This constraint on balance sheets is simply not found in the real world.
  - Example 1 - Household budget constraint:
    $$\Delta deposits_t(+\Delta bonds_t) = physical\_income_t - physical\_spending_t$$
    * Nobody needs to **physically** save for banks to **digitally** create deposits.
    * And nobody can increase deposits by depositing financial instruments.
  - Example 2 - Central bank: CBAPs implicitly use commodities.
    * We are at a central bank: Show me the warehouse!

4 Banks Do Not Solve a Portfolio Problem

- Portfolio problem:
  - Allocate given wealth between different uses.
  - Given wealth: Net worth and deposits.
  - Uses: Loans and bonds.

- The "given wealth" part does not apply to banks.

- Banks jointly optimize **gross** asset and liability positions.

- Where banks **create the liabilities** (deposits) that fund the assets:
  - When they make loans: New deposits for households.
  - When they buy gov't bonds: New deposits for sellers (incl. gov't).

5   Do Any "Funds" Constrain Bank Lending?

- Two Possibilities:

1. Deposits: No. Banks create their own deposits. They are not warehouses.

2. Equity:
   - (a) Via the "funding" of lending? No. See Deposits.
   - (b) Via minimum CAR regulation?
     - This basically does not apply to CBAPs.
     - Why? Risk weight on EUR gov't securities is 0%:
       - Standardized Approach: 0%.
       - Internal Ratings Based Approach: $\cong$0%.
     - Banks can "print" deposits to buy bonds without equity backing.
     - Yet this model asssumes a risk weighting of 100%.

- Profit maximization, not "funds", constrains bank lending.

6 "Finance" as Commodity Flows: CBAPs

- Footnote 16: "... the analysis of the CB balance sheet is beyond the scope of this paper ..."
- But this is a critical omission, it should be at the core of this paper:
  - Is this not a general equilibrium model? I will assume it is.
  - But then what does the CB use to pay for CBAPs? Never explained.
- In the real world:
  - Central bank creates reserves ex nihilo to pay for CBAPs.
  - Just like banks create ledger-entry bank deposits ex nihilo.
  - Central bank reserves cannot be lent to any non-bank.
- In the model:
  - Bonds held by CB are not gov't debt: No interest to non-banks.
  - Therefore, the gov't budget constraint should show net debt.
  - Then CBAPs are a reduction in gov't debt.
  - The physical GBC then requires a one-off physical lump-sum tax on HHs.
  - Commodities obtained through taxes go to banks to pay for CBAPs.

- Implications for banks:

  - Banks/warehouses now have additional commodities on their asset side.

  - They can then lend these commodities out.

  - Is this part of the reason why bank lending increases?

  - (In addition of course to the bank capital channel, via higher earnings.)

- Implications for households:

  - The CBAP tax causes a huge negative wealth effect.

  - Households therefore want to save more, by accumulating deposits.

  - Is this another reason why bank lending increases?

7 "Finance" as Commodity Flows: Dispersion Index

- Interest rate dispersion index $\Delta_{E,t}^{R}$ makes loans at different levels different from each other:

$$L_{BE,t} = \Delta_{E,t}^{R} L_{E,t}$$

- This makes sense for commodities, which are physically transformed along a chain of production.

- But these a financial loans: A dollar is a dollar is a dollar.

- This is another instance of the tensions that arise in pseudo-financial models with commodity payments.

8   The Cost of Holding Bonds

- Cheap comment (sorry):

  – This exogenously imposes some of the results you want to show.

  – In that case: Be very careful with disciplining your calibration.

  – In Figure 3, the effects on interest rates seem huge.

- More importantly:

  – Gov't bonds seem like the cheapest way of taking positions.

  – It is loans that involve some resource costs.

9 CBAPs and CCCBs with Strong Banks

- The paper claims that the two are in conflict:
  - CBAPs are expansionary.
  - CCCBs mute that expansion.

- But I think this constructs the wrong scenario.

- CBAPs only happen in a deep crisis to help boost the economy.

- At that point the credit ratio is almost certainly very low.

- Which means that CCCBs also help boost the economy.

- So there is synergy, not conflict.

10 Other Comments

- Requests for more help to discussants and referees:
  - Please produce a technical appendix.
  - Please define all terms in sequence.
  - Discuss key FOC (24) and (25) in much more detail.

- Exponential utility function:
  - Is this important for the results?
  - Also, why does labor effort give positive utility?

- Consumption FOC has missing terms.

- In figures, show all balance sheet magnitudes relative to GDP to facilitate comparisons.

THANK YOU