Discussion of "Non-Standard Monetary Policy, Asset Prices and Macroprudential Policy in a Monetary Union" by Burlon, Gerali, Notarpietro and Pisani (2016)

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First Annual Workshop of the ESCB Research Cluster 1 on Monetary Economics, October 9-10, 2017

[1] The views expressed are solely my own and do not necessarily reflect those of the Central Bank of Cyprus or the Eurosystem.

Outline

Motivation

- Current economic conditions: Period of depressed aggregate demand, persistently weak medium-term outlook for euro area inflation and low interest rates
- Launch of the Expanded Asset Purchase Programme (APP): purchases of private securities and euro-denominated investment-grade securities issued by euro area governments and institutions in the secondary market
- Aim of APP: Increase liquidity in the market, lower long-term interest rates, stimulating the economy and favoring the achievement of price stability in a period of depressed aggregate demand and persistently low inflation.
- Possible side effects: The APP in conjunction with forward guidance and current economic environment can generate financial instability through the reduction in long-term sovereign yields and excessive increase in asset prices

Question

- Should local macroprudential policy authorities take into account these possible side effects (i.e. financial instability due to excessive increase in asset prices)?
- Can local macroprudential policies dampen excessive fluctuations in borrowing, leverage and asset prices by adjusting country-specific instruments?
- This paper: Provides an assessment of the macroeconomic and financial effects of the APP and its interactions with regional macroprudential policy (Loan-to-value ratios in housing market)

Selected Features

- This paper evaluates the macroeconomic effects of purchases of long-term sovereign bonds by a central bank in a monetary union when
  1. there is limited participation in financial markets (some households have access only to long-term sovereign bonds)
  2. the private sector faces tight borrowing constraints with local real estate being is the collateral
  3. the borrowing constraint depends on the loan-to-value ratio
  4. the effective lower bound (ELB) on the policy rate holds
  5. agents form irrational and overly optimistic expectations about the value of the real estate
- Calibrate a global large-scale New Keynesian DSGE model for the euro area and rest-of-the world.
- Euro area is split into the Home country (medium size) and the rest-of-euro area.

Model structure

1. Restricted households:
   - Access only to domestic long-term sovereign bond market
   - Invest in physical capital
   - Purchase domestic housing
2. Unrestricted households:
   - Access to both domestic short- and long-term sovereign bond markets
   - Access to domestic short- private bond market
   - Invest in physical capital
   - Purchase domestic housing
   - Trade a riskless private bond with other regions
3. Indebted households:
   - Trade domestic short-term nominal bond
   - Subject to borrowing constraint with real estate collateral
4. Standard remaining features
   - Physical capital producers
   - Imperfectly comp. intermediate-goods producing firms (tradable goods)
   - Perfectly comp. final-goods producing firms (non-durable consumption, housing investment and other investments goods)
   - Nominal price and wage rigidities
   - Macroprudential authority
   - Monetary and fiscal authorities

Scenarios

APP benchmark scenario of:

- quarterly purchases of 180 euro billion for seven quarters
- approx. amounts to 1.3 trillion euro
- purchases corresponds to approximately 10% of home GDP
- long-term bonds are held to maturity
- central bank gradually sells the bonds afterwards
- corresponds approximately to the first APP announcement in January 2015

APP benchmark scenario subject to:

1. 2-year effective lower bound on interest rates (ELB)
2. 3-year ELB
3. 2-year ELB and lower LTV ratio (90% to 50%)
4. 2-year ELB with increase in house prices by 5%
5. 2-year ELB with increase in house prices by 5% and endogenous home LTV ratio
6. 2-year ELB with increase in EA house prices by 5% and endogenous LTV ratio for all EA regions

Results

- Longer forward guidance amplifies the APP propagation
- Higher LTV ratio can amplify the APP propagation
- Higher LTV ratio and irrational expectationst about house prices can amplify further the APP propagation
- Macroprundential measures can stabilize private sector borrowing with limited negative effect on domestic economic activity in the short-run
- Results also hold in the case of EA-wide overly optimistic expectations

Topic 1: Macroprudential policies

Macroprudential policies

- Capital-based measures: target banks' capital and provisioning requirements to increase the overall resilience of individual banks and the banking sector by mitigating the build-up of risk exposures (i.e. countercyclical capital buffer)
- Asset-based measures: impose quantitative restrictions on positions aim at ensuring adequate lending standards and addressing the excessive provision of credit (i.e. caps on Loan-to-Value (LTV) and Loan-to-Income (LTI))
- Liquidity-based instruments: aim at containing banks' vulnerabilities stemming from over-exposure to short-term financing, maturity mismatches and lack of liquid assets

Topic 2: APP transmission channels

- One important channel of the APP transmission is the credit channel
  - Bank portfolio rebalancing channel: Change in relative profitability of different instruments i.e. government bonds versus loans (substitution effect)
  - Bank lending channel: Impact on banks' net interest margin and funding costs (income effect)
  - Bank balance sheet channel: Impact of government bond valuation (income effect)
- Credit channel origination
  - Demand side factors, i.e. demand for loans from agents in the economy
  - Supply side factors, i.e. supply of loans from banks
- Paper does not incorporate the credit channel of APP. Only demand side channel with borrowing constraints

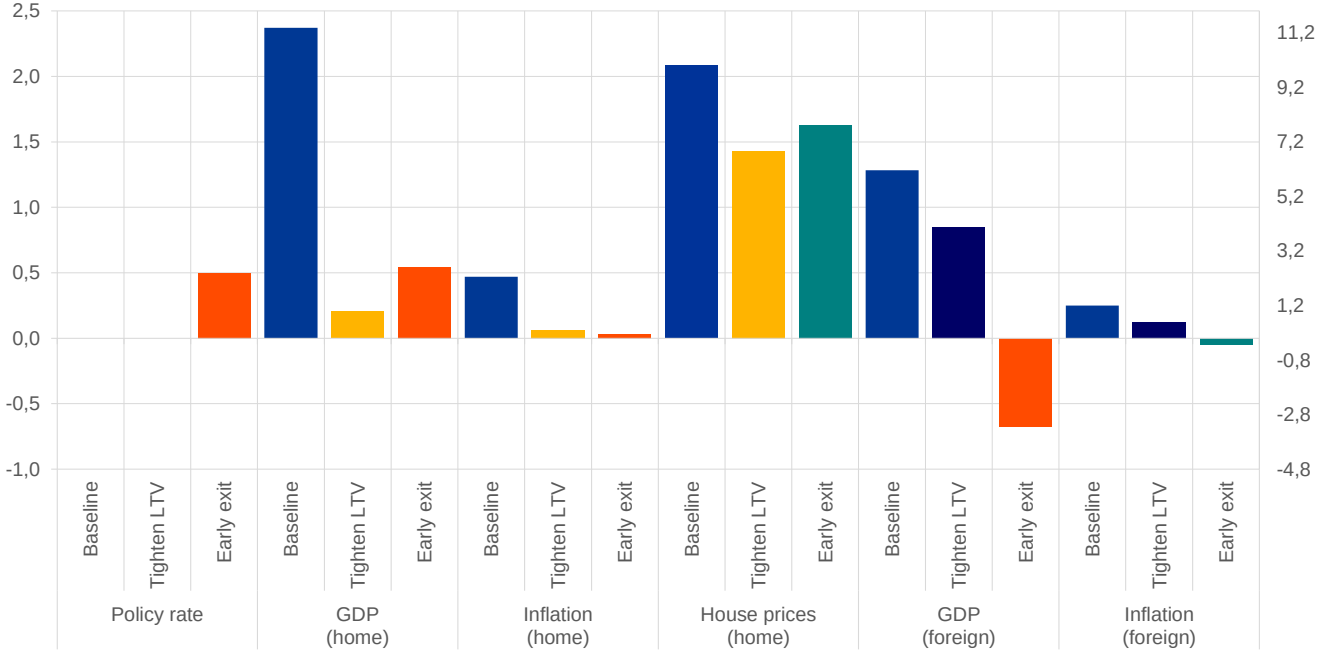
Topic 3: APP multipliers

		Home		EA	
	Benchmark scenario subject to:	GDP(%)	Infl.(pp)	GDP(%)	Infl.(pp)
1	2-year ELB	1	0.7	1.1	0.7
2	3-year ELB	3	1.7		
3	2-year ELB and lower LTV ratio (90% to 50%)	0.9	0.7		
4	2-year ELB with increase in house prices by 5%	3	0.7	1.3	0.7
5	2-year ELB with increase in house prices by 5% and endogenous home LTV ratio	1.7	0.7	1.2	0.7
6	2-year ELB with EA increase in house prices by 5% and endogenous home LTV ratio for all EA regions	1.9	0.9	1.9	0.9

- Strong multiplier for 3-year ELB
- Strong multiplier from an increase in house prices, especially since it is the average increase over 2002-2007 period
- No significant variation in inflation response

Topic 4: Cross-border spillover effects

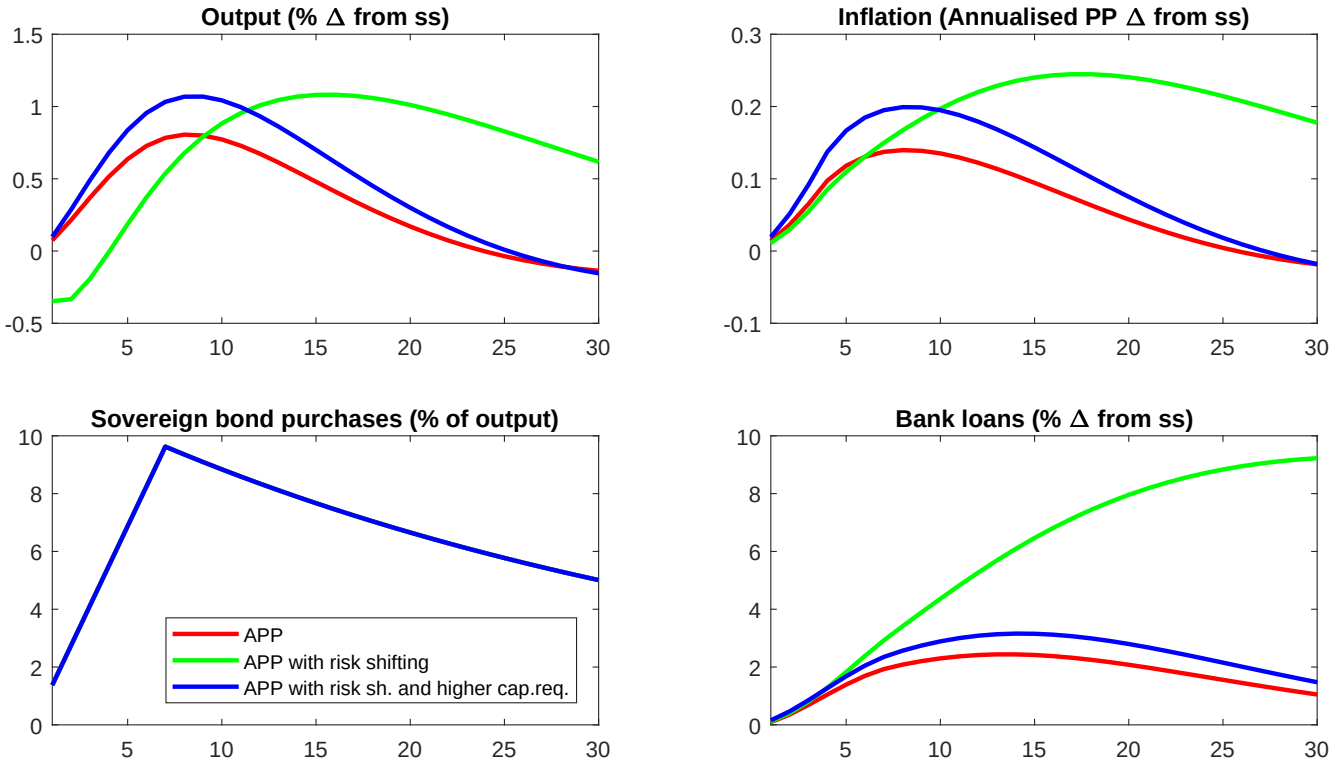
- Question: How macroprudential measures influences foreign economies from domestic asset price increases subject to APP and/or macropru?
- Example: Leaning against house price bubbles (LTV ratio measures versus standard monetary policy) (Source: Darracq Pariès et al (2017), ECB Financial Stability Review, May 2015)



- Macroprudential measures are able to contain the asset price increase in the booming region and to better shield the rest of the euro area
- The early tightening of monetary policy to mitigate house price growth in the domestic economy delivers significantly more cross-country heterogeneity and negative cross-border spillovers

Topic 5: Bank riskiness and regulation

- In the case of high bank riskiness, risk shifting impairs the transmission of APP and leads to higher bank riskiness over the medium-term
- Regulation (increase in capital requirements) can deter risk shifting and restore the transmission of APP



Source: Empowering Central Bank Asset Purchases: The Role of Regulatory and Supervisory Policies, by Darracq Pariès and Papadopoulou (2017), Work in Progress