Targeting Financial Stability: Macroprudential or Monetary Policy

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Third Research Conference of the MMCN

Frankfurt am Main, 14 June 2019

* The views expressed in this presentation are those of the presenter and should not be thought to represent those of the Bank of England or European Central Bank.

Key Policy Questions

- How should monetary and macroprudential policy interact in response to different shocks and challenges which policymakers may face?
- Should monetary policy lean against the wind?
- What are the key trade-offs? Complements or substitutes?
- What are the implications of the zero lower bound, market-based finance and the risk-taking channel of monetary policy?

Simple two-period new-Keynesian model

IS curve: $y_1 = E^{(ps)}{}_1 y_2 - \sigma(i_1 - E^{(ps)}{}_1 \pi_2 + \omega s_1) + \xi^{y}{}_1$

Phillips curve: $\pi_1 = \kappa y_1 + E^{(ps)}{}_1 \pi_2 + \nu s_1 + \xi^{\pi}{}_1$

Real credit growth: $B_1 = \varphi_0 + \varphi_i i_1 + \varphi_s s_1 + \xi^{B}{}_1$

Macroprudential policy: $s_1 = \psi k_1 + \xi^{B}{}_1$

Crisis probability (based on cross-country estimation):

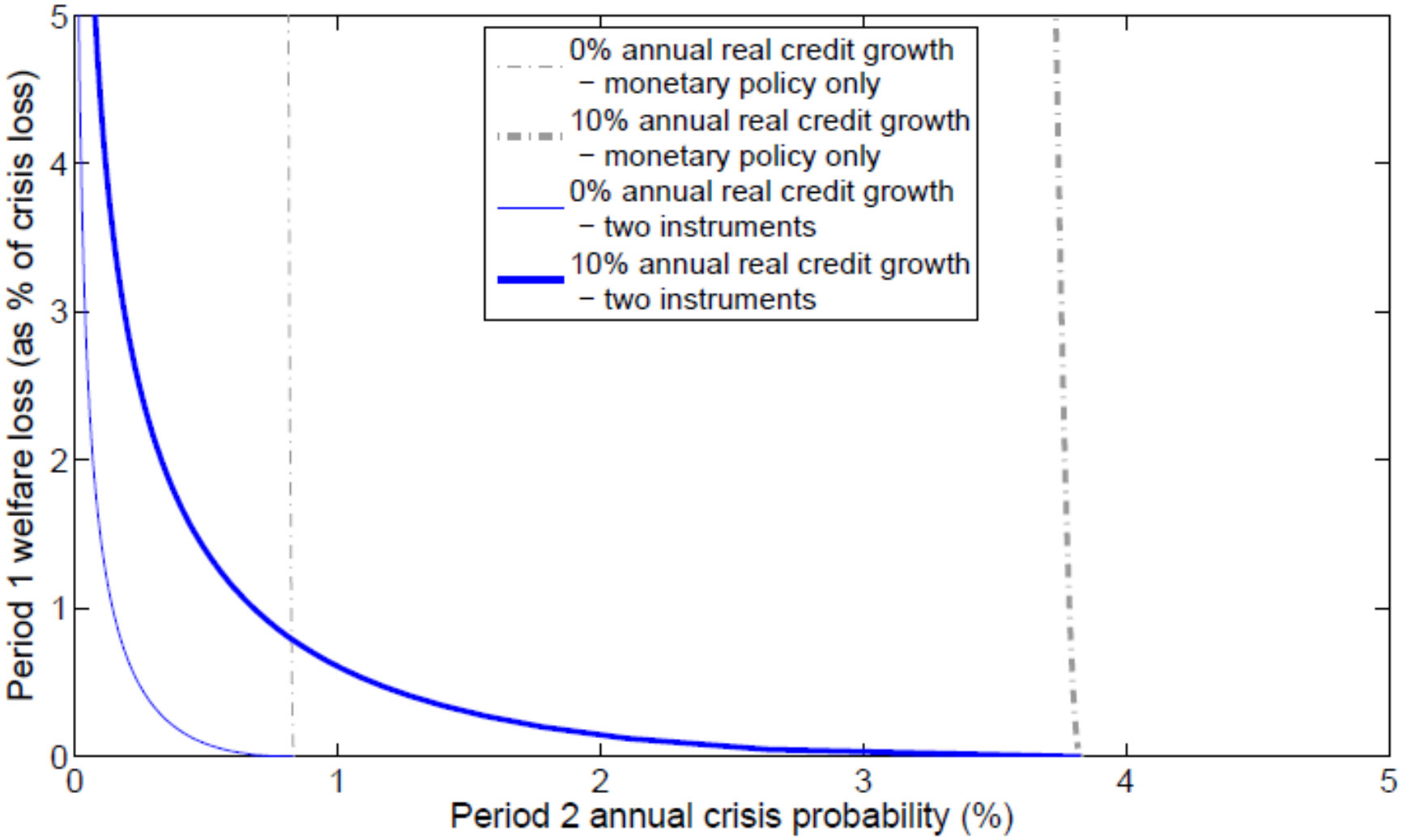
$$\gamma_1 = \frac{\exp(h0 + h_1 B_1 + h_2 k_1)}{1 + \exp(h0 + h_1 B_1 + h_2 k_1)}$$

Loss function: $L = \pi_1{}^2 + \lambda y_1{}^2 +$

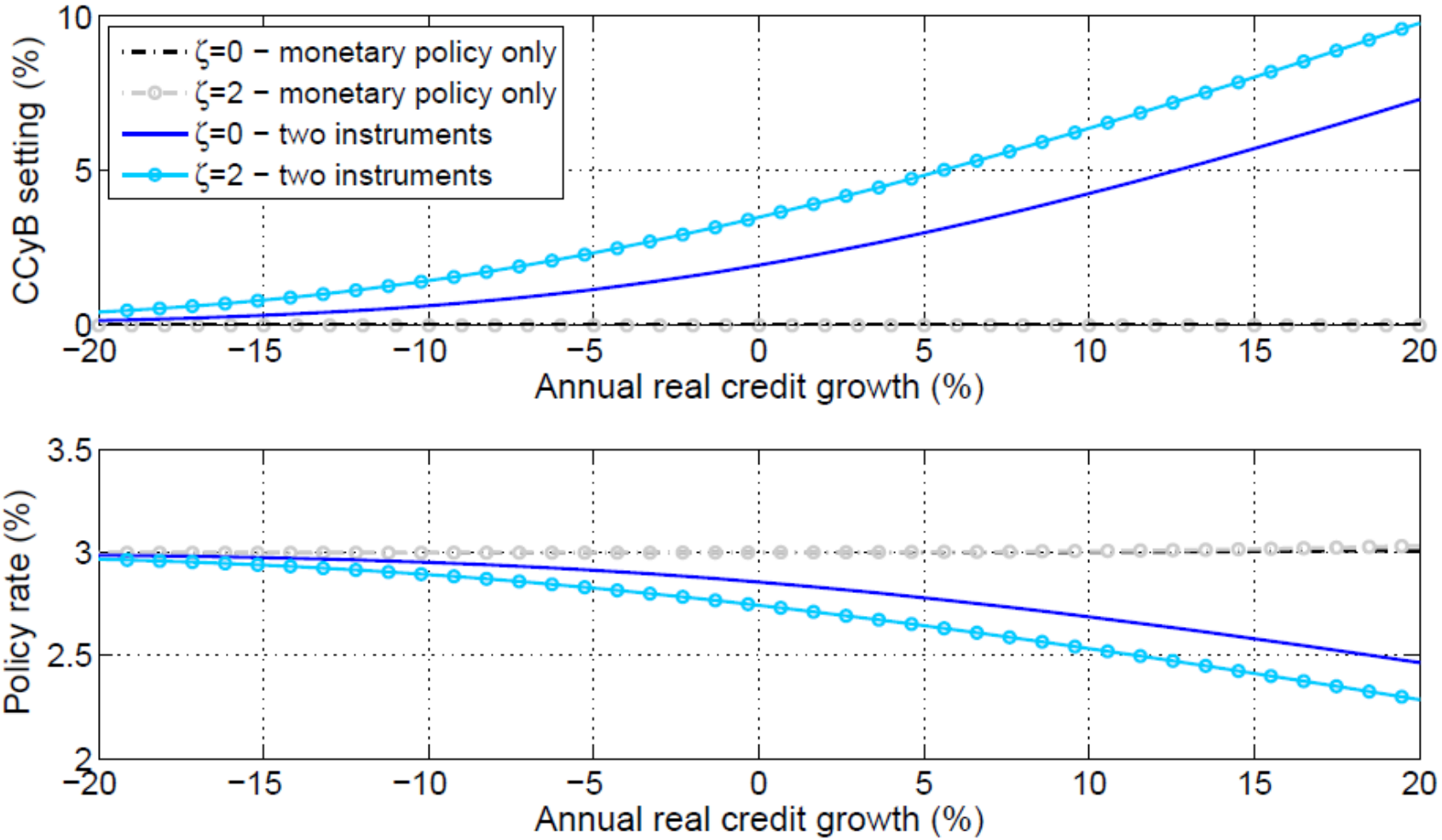
$$\beta(1 - \gamma_1)(\pi_{2nc}{}^2 + \lambda y_{2nc}{}^2)$$

$$+ \beta(1+\zeta)\gamma_1(\pi_{2c}{}^2 + \lambda y_{2c}{}^2)$$

Introducing macroprudential policy leads to welfare gains

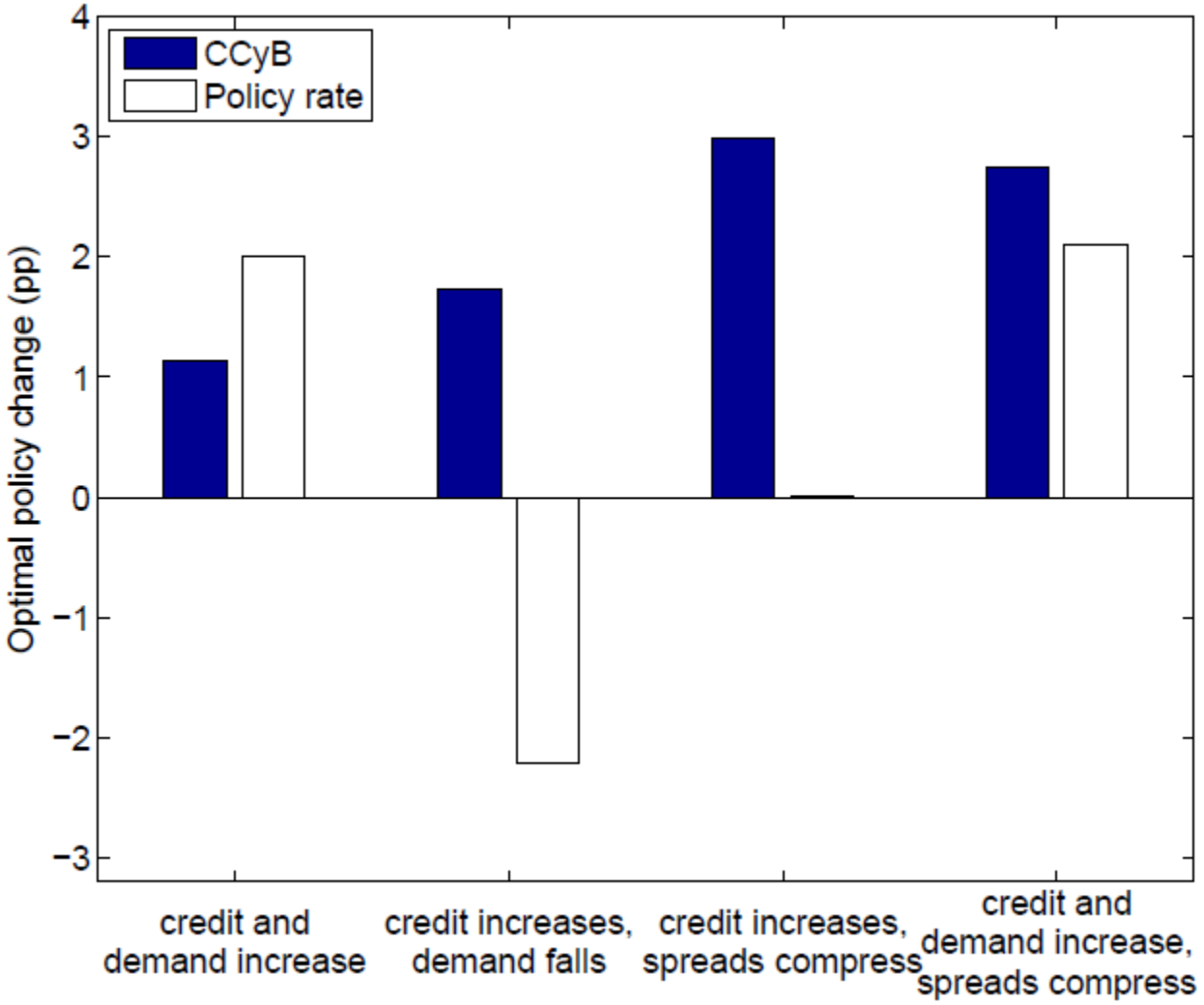


Credit growth shocks: policies as substitutes



- In benchmark case, macroprudential tightening leads to monetary policy loosening, eg as credit growth increases

Optimal response to different shocks



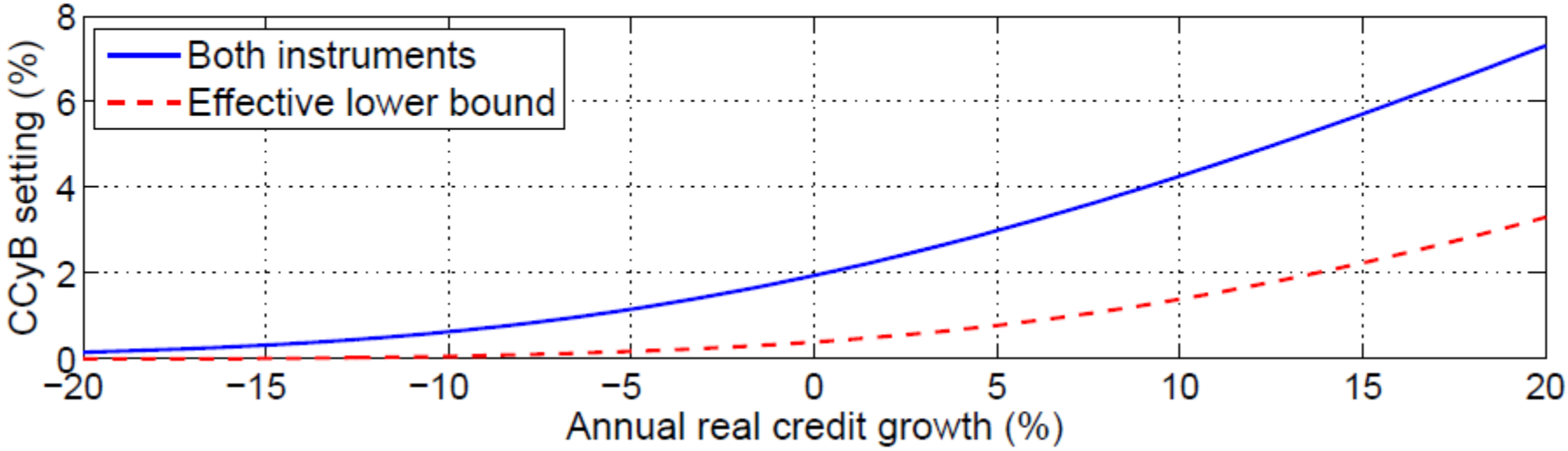
Extensions to the model – summary outcomes

Case	SD(y_1)	SD(π_1)	SD(B_1)	median(γ_1)	SD(i_1)	SD(k_1)	$E(L)$
Simulation using credit shocks only							
$\zeta = 0$:							
(i) Benchmark results under CCyB regime	0.11	0.005	5.3	0.77	0.11	1.45	1.37
(ii) Nash policies	0.10	0.005	5.3	0.94	0.10	1.33	1.41
(iii) ELB	0.09	0.030	5.5	1.73	0	0.76	2.61
(iv) Market-based finance	0.09	0.004	5.6	1.46	0.08	1.13	2.32
(v) Risk-taking channel	0.11	0.003	5.8	0.87	0.10	1.45	1.51

- Table shows model simulations in response to a *credit shock*
- Several extensions make outcomes significantly worse
- In all variants, the CCyB remains the key financial-stability tool

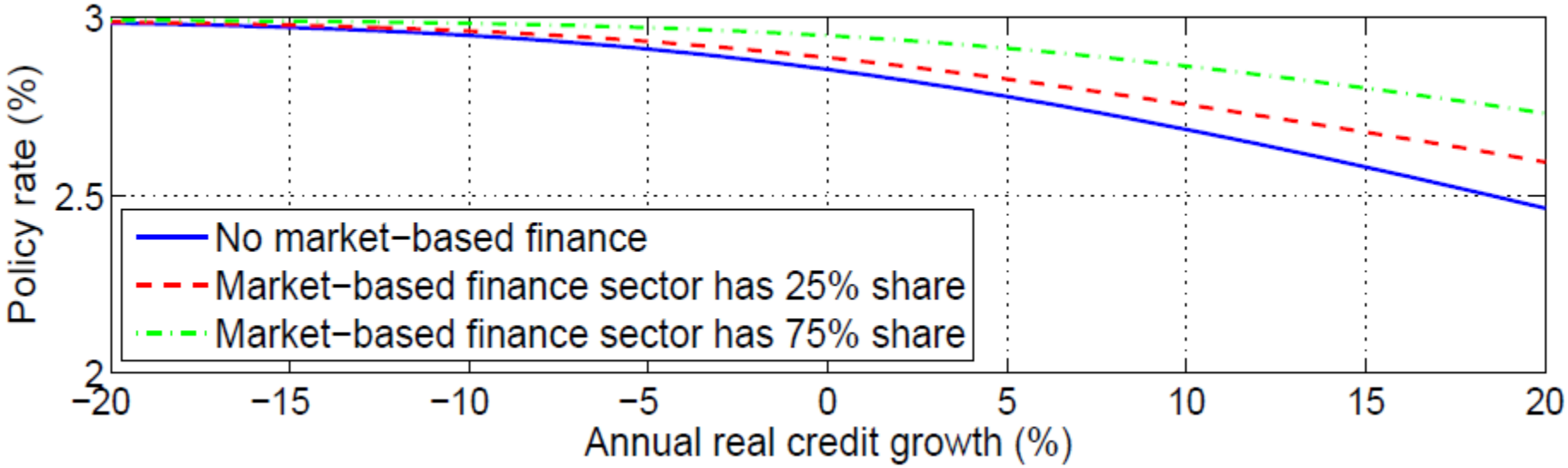
Implications of the effective lower bound

(b) *CCyB policy function as credit shock varies, with and without binding effective lower bound*



- If monetary policy is constrained by the effective lower bound, use the CCB less or later as greater consideration is needed for its effects on aggregate demand

Implications of market-based finance



- As macroprudential policies become less effective, there is a stronger role for monetary policy to 'lean against the wind'

Conclusion and next steps

- Developed simple framework for modelling monetary and macroprudential policy
  - encapsulates many hypotheses & trade-offs in a parsimonious manner
  - key role for macroprudential policy throughout; monetary policy often a strategic substitute but instruments can be complements
  - identify circumstances in which monetary policy may be needed
- Possible extensions
  - incorporating product-based macroprudential tools
  - open economy considerations