Coordinating Monetary and Financial Regulatory Policies

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The views expressed on this discussion are my own and do not necessarily reflect those of the European Central Bank

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  Emphasis $\rightarrow$ coordination throughout the economic cycle

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SW Coordinated ≻ Traditional by 0.07% annual consumption equivalent

Roadmap

- Model economy $\rightarrow$ **2** building blocks

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Firms

- Firms produce intermediate goods out of labor and capital services

$$y_{j,t} = A_t l_{j,t}^{\alpha} k_{j,t}^{1-\alpha} \quad \text{with } j \in [0,1]$$

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- Firms reset nominal price $p_{j,t}$ sluggishly according to Calvo (1983) $\Rightarrow$

agg. price level $p_t = \left[\int_0^1 p_{j,t}^{1-\varepsilon} dj \right]^{\frac{1}{1-\varepsilon}}$ evolves locally deterministically,

$dp_t / p_t = \pi_t dt + 0 dZ_t$

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$$V_t \equiv \max_{\bar{k}_{f,t}, b_t} E_t \int_t^{\infty} \gamma e^{\gamma(s-t)} \frac{\Lambda_s}{\Lambda_t} n_{f,s} ds \ ,$$

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- Households $\rightarrow$ consume c_t, supply labor l_t, and invest in $-b_t$, $\bar{k}_{h,t}$

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Pecuniary externalities: distributive, binding-constraint, and dynamic

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SW Utility flows are:

$$(1-\alpha)\ln a_t + \ln \frac{1}{\omega_t} + \alpha \ln l_t - \chi \frac{1}{1+\psi} l_t^{1+\psi} + \ln A_t + (1-\alpha)\ln \bar{k}$$

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Traditional Mandate

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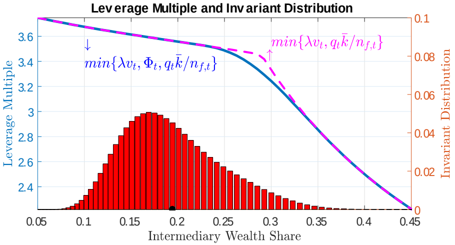
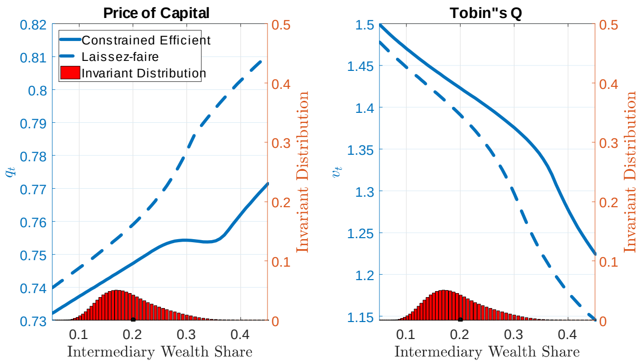
$\Phi_t \longrightarrow$ replicate constrained efficient policy of flex. price econ. $\Longrightarrow$



Macro-prudential Policy in Flexible Price Economy

- **Benefits**
  - ↓distributive externality [Fig. 1] ↑binding-constraint externality [Fig. 2]
  - ↓ co-movement btw a_t and intermediary wealth share
  - shift invariant distribution rightward [both Figs., RHS]



Policy Exercise (cont.)

Coordinated Mandate

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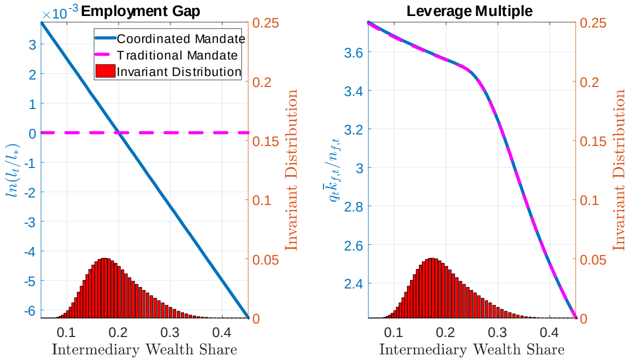

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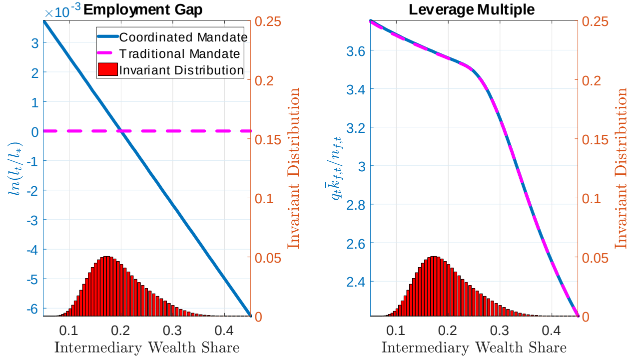

- $a_f \frac{r_{k,t}}{q_t} dt + \frac{dq_t}{q_t} - (i_t - \pi_t)\, dt$, with $q_t \to PDV \;\; of \;\; r_{k,t}$

- Baseline calibration

Parameter Values

a_h	λ	γ	μ_A	σ_A	α	ε	θ	ρ	ψ	χ
70%	2.5	10%	1.5%	3.5%	65%	2	$\ln 2^{6/5}$	2%	3	2.8

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- Social welfare gains in annual consumption equivalent

Coordinated Mandate over Traditional Mandate

	Present Discounted Value of			
	$\ln \frac{1}{\omega}$	$\ln l^{\alpha} - \chi \frac{l^{1+\psi}}{1+\psi}$	$\ln a^{1-\alpha}$	Ut. Flows
Baseline calibration	−0.04%	−0.00%	+0.11%	+0.07%
... but with $a_h = 60\%$	−0.05%	−0.01%	+0.15%	+0.09%
... but with $\theta = \ln 2^{4/5}$	−0.06%	−0.01%	+0.20%	+0.13%
... but with $\varepsilon = 4$	−0.05%	−0.00%	+0.07%	+0.02%

Conclusion

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MoPo $\longrightarrow$ mimic natural rate of return

MacroPru $\longrightarrow$ replicate constrained eff. policy of flexible price econ.

Coordinated Mandate

MoPo $\longrightarrow$ deviate from natural rate of return

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Social Welfare Gains

Coordinated $\succ$ Traditional by 0.07% annual consumption equivalent