

## WHAT QUESTIONS DO WE ATTEMPT TO ANSWER?

**MIND THE SOURCE OF THE SHOCK:** How is the effectiveness of capital-based policy instruments affected by different types of shocks?

We implemented two adverse scenarios, each representing a different shock that drives the financial system and economy away from the steady state.

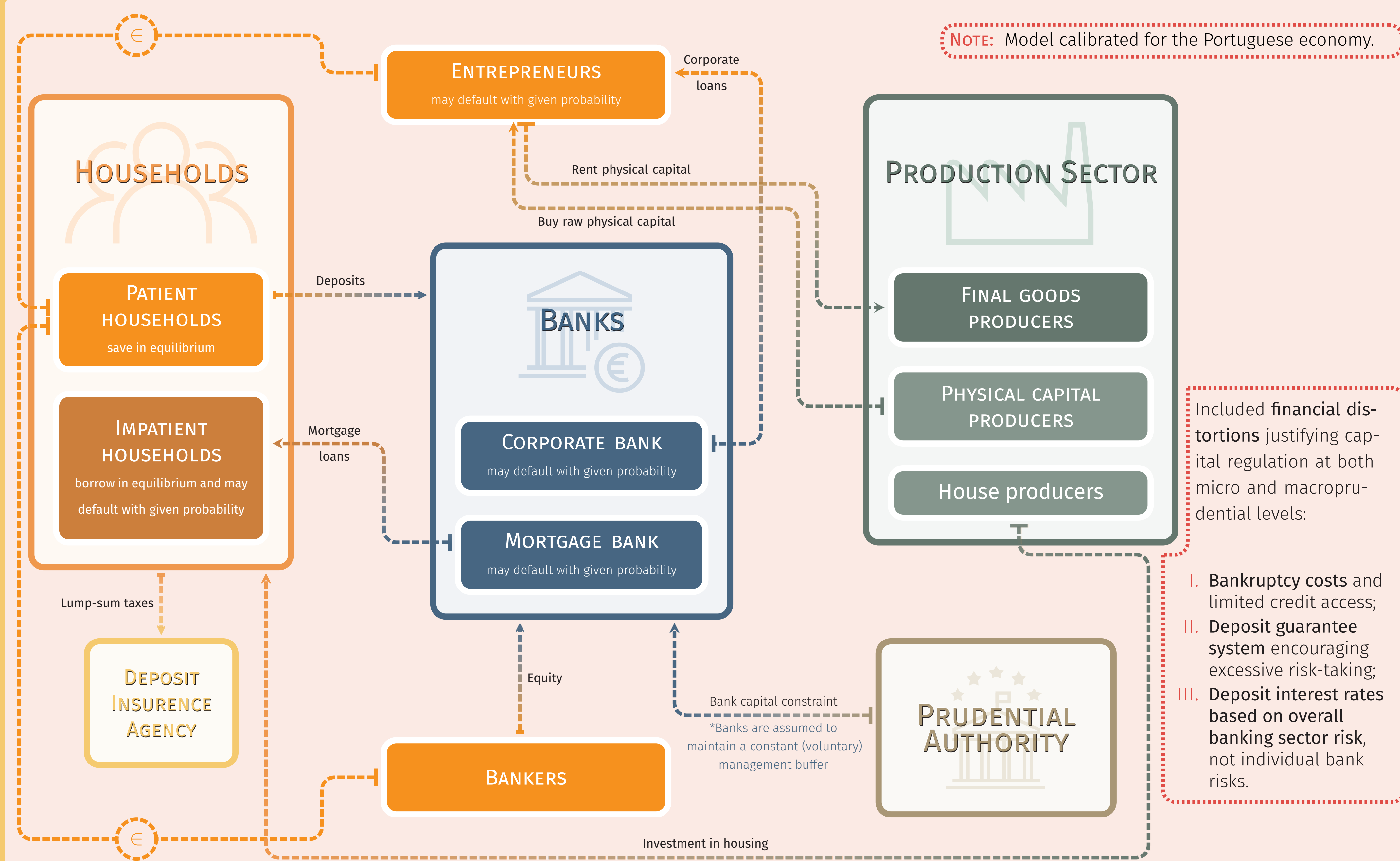
- ▶ **ECONOMIC SLOWDOWN:** Stress event that come from the economy side – disturbance in the total productivity factor (TPF).
- ▶ **FINANCIAL TURBULENCE:** Stress event that directly affects the banking sector – a shock to the risk of banks' returns.

**BALANCING POLICY INSTRUMENTS GOALS:** What policy implications can be drawn from the interplay of capital instruments with varying policy goals?

We assess how increasing capital requirements improve the resilience of the financial system in face of adverse scenario.

- ▶ **STRUCTURAL CAPITAL REQUIREMENTS:** Address financial system vulnerabilities
- ▶ **CYCLICAL CAPITAL REQUIREMENTS:** Build resilience against financial cycle risks

## THE 3D MODEL [DSGE FIRST DEVELOPED BY CLERC ET AL., 2015 AND EXTENDED BY MENDICINO ET AL., 2018 AND MENDICINO ET AL., 2020]

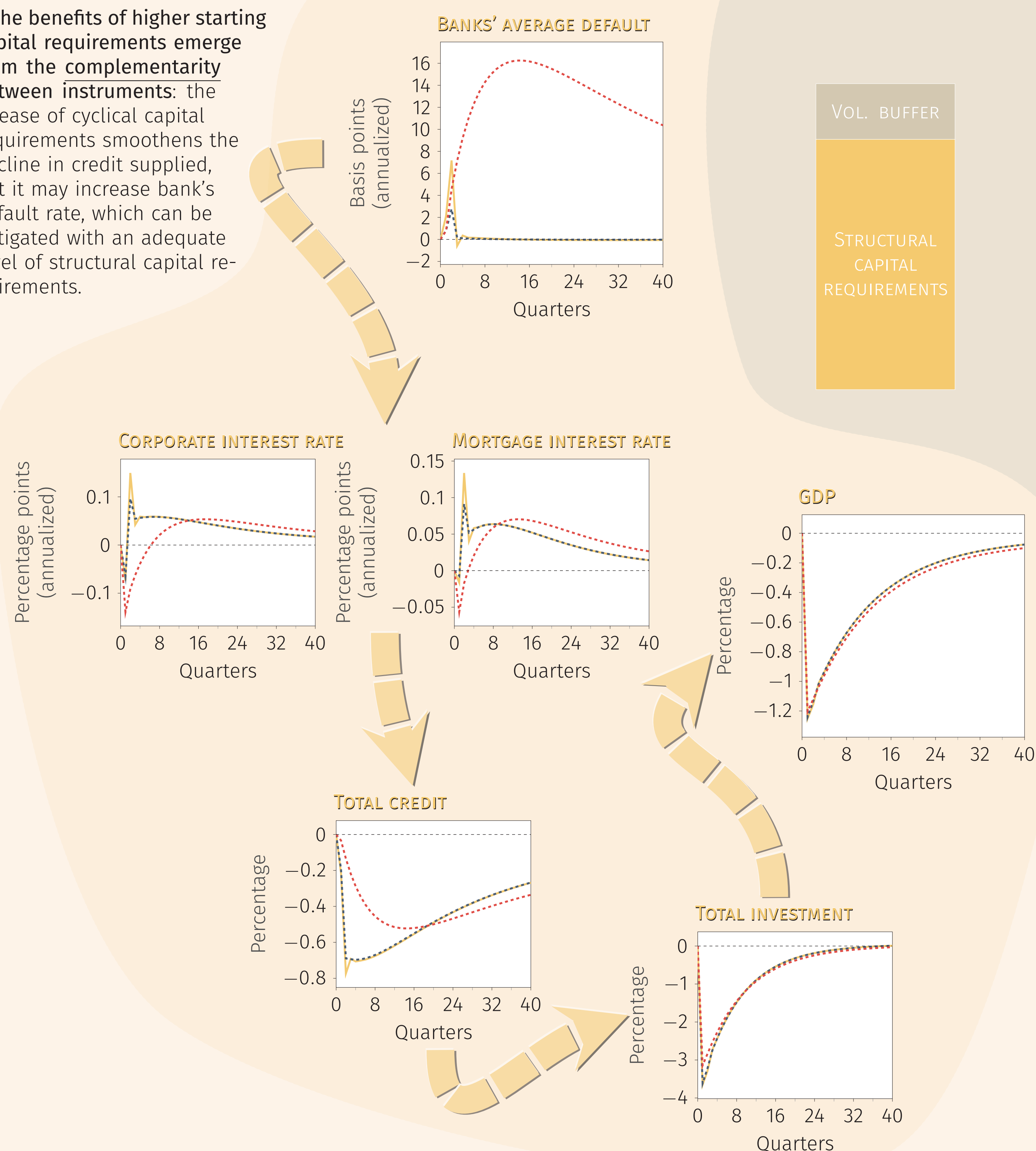


## COMPARISON OF THREE ECONOMIES WITH DIFFERENT STARTING LEVELS OF RESILIENCE PRIOR TO THE SHOCKS

### ECONOMIC SLOWDOWN

- Higher initial capital requirements have minimal impact on reducing the shock's effect on GDP

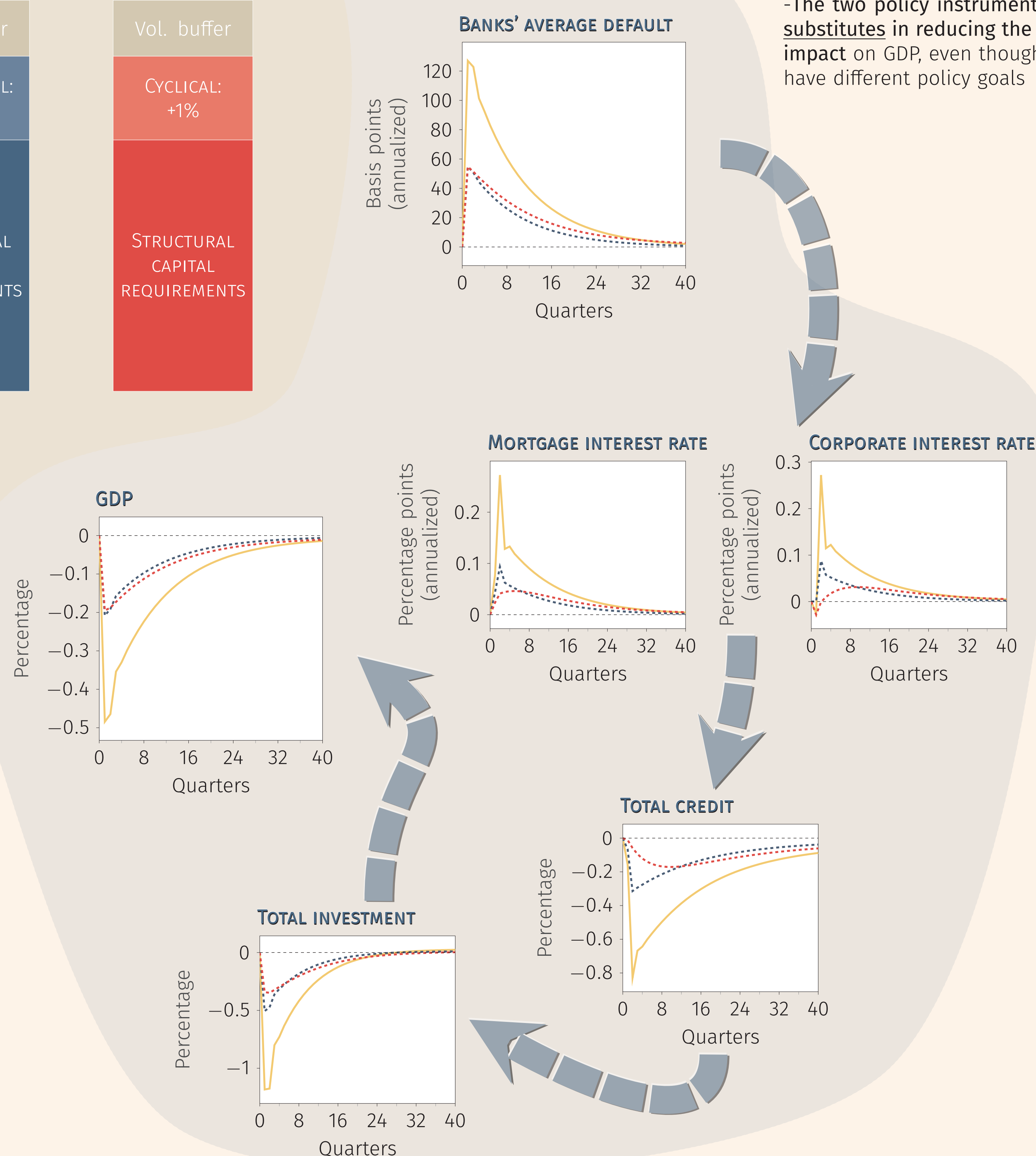
- The benefits of higher starting capital requirements emerge from the **complementarity between instruments**: the release of cyclical capital requirements smoothens the decline in credit supplied, but it may increase bank's default rate, which can be mitigated with an adequate level of structural capital requirements.



### FINANCIAL TURBULENCE

- Higher starting capital requirements help reduce the shock's impact on GDP due to the more muted response of credit to the shock

-The two policy instruments are **substitutes** in reducing the shock's impact on GDP, even though they have different policy goals



## CONCLUSIONS

### ENHANCED RESILIENCE:

- Increasing banking sector **resilience mitigates shock impacts** and prevents amplification effects.
- Supports using a **combination of policy instruments**:
  - ▶ **Substitutability:** Builds resilience;
  - ▶ **Complementarity:** Smooths credit effects during crises.

### SOURCE-DEPENDENT EFFECTIVENESS:

- Better-capitalized banks reduce shock propagation when **stress originates within the financial system**;
- Bank capital instruments are less effective against **aggregate demand shocks** but help prevent shock amplification;
- Highlights the importance of **distress source for the effectiveness** and limitations of bank capital instruments;
- Supports other policies**, such as monetary and fiscal.

### STRATEGIC COMPLEMENTS:

- Structural and cyclical capital-based instruments **complement each other**:
  - ▶ **Both enhance banking sector resilience** and shock absorption;
- Higher cyclical capital requirements:
  - ▶ Provide **similar benefits** to higher structural requirements;
  - ▶ Help **smooth post-shock credit flow** reductions.

## REFERENCES

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