Integrating stress tests within the Basel III capital framework: a macroprudentially coherent approach

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Disclaimer

The views expressed in this presentation are my own and do not necessarily coincide with those of Banca d'Italia

Introduction

- Post-crisis financial sector reform introduces macroprudential tools aimed at enhancing stability of the system & reducing volatility of the cycle
- Banks' capital adequacy is established by the Basel III capital standards and also by supervisory stress tests (STs)
- Basel III requires banks to build buffers during expansions that can be used during downturns
  - Loss absorbing buffers: Capital Conservation Buffer (CCoB) [2,5% CET1] & Countercyclical Capital Buffer (CCyB) [0-2,5% CET1]
- Supervisory STs assess in a forward-looking manner resilience of banks and the system to an adverse macroeconomic shock

This paper: questions & answers

How to integrate the capital implications of STs within Basel III?

- Introduction of a Stress Test Buffer additional to those in Basel III Pillar 1

How to ensure the macroprudential coherence of the Basel III & ST capital framework?

- STs with procyclical severity

How to implement STs with cyclical severity?

- Constrained discretion approach to severity choice based on simple severity measure and rule

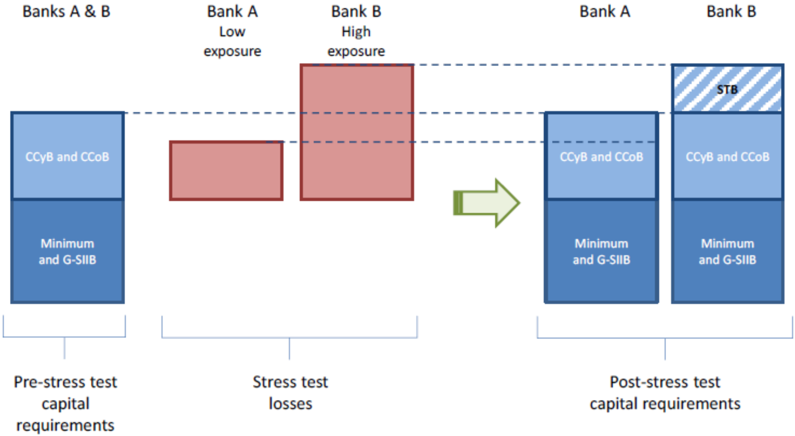
How to integrate STs within Basel III?

- Basel III introduces buffers (CCyB & CCoB) to absorb losses during downturns
- STs can be used to assess if Basel III buffers are sufficient to withstand a macro shock
- Define a bank specific Stress Test Buffer (STB) as

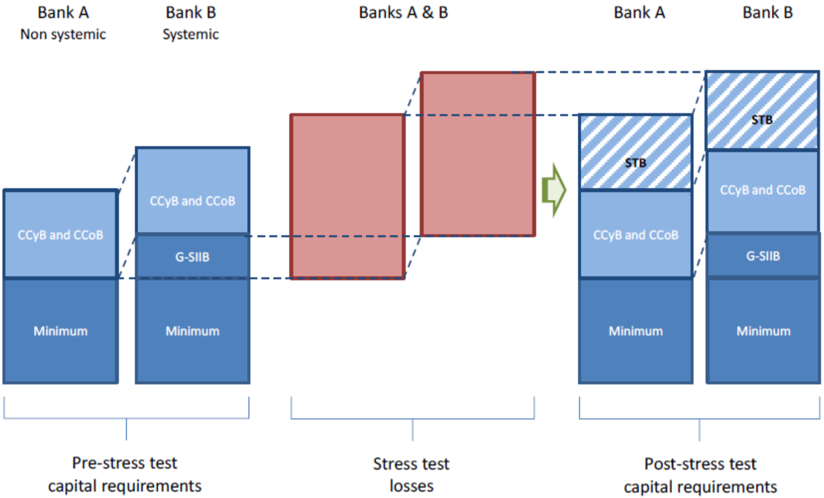
$$STB = \max\left\{\frac{ST\ Losses}{Risk\ weighted\ assets} - (CCoB + CCyB), 0\right\}$$

- Introduce the STB as a capital requirement additional to the other Basel III Pillar 1 requirements (minimum and buffers)
- The STB transforms ST results into the Basel "language" of buffers

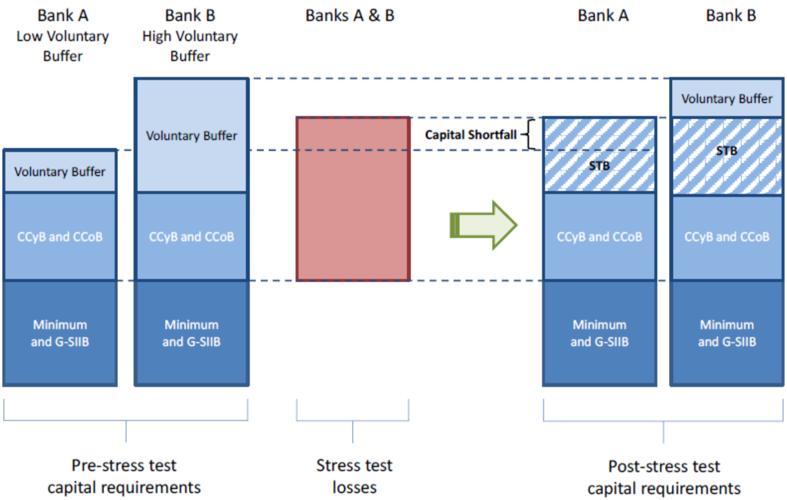
The Stress Test Buffer: illustration



STB & G-SIIB: higher resilience for systemic banks



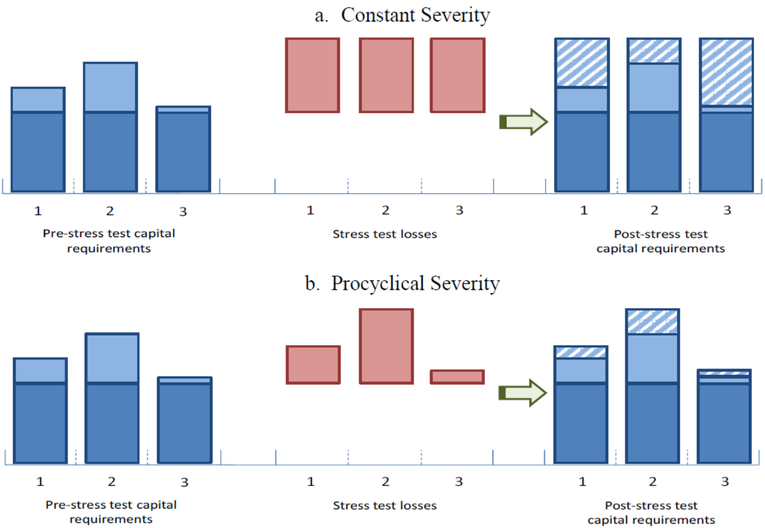
Voluntary buffer, Stress Test Buffer and capital shortfall



How to ensure macroprudential coherence of the Basel III & ST framework?

- Minimum capital requirements $\Leftrightarrow$ Minimum resilience levels requirements
- The build-up in Basel III of buffers during expansions to be used in downturns...
- defines capital framework in which banks are allowed to operate with lower level of resilience in downturns than in expansions
- Macroprudential coherence requires level of resilience of STs to follow same cyclical path...
- meaning that **ST severity should be procyclical**: increase during expansions and decrease in downturns

Stress Test severity along the cycle: illustration



1 , 2 and 3 are three stylised phases of the cycle: 1 = expansion, 2 = peak, 3 = downturn or trough

Implementation of STs with cyclical severity & main challenges

- Implementation strategy must enhance predictability of severity and forestall inaction bias
- Need to define a simple and robust severity measure
  - Recession based measures preferable to probabilistic ones
- A "constrained discretion" approach to severity choice should be adopted
  - Need to define rules guiding severity for crucial parameters of the adverse scenario (e.g. unemployment rate, house prices, stock market indices,...)
  - In the euro area severity choices of domestic component of scenarios should take into account domestic financial and business cycles

A bird's eye view on ST approaches in US, UK and EA

Supervisory STs	United States	United Kingdom	Euro area
Capital implications	Prohibition of dividends if capital shortfall	Transparent calibration of two required buffers	Capital guidance under SREP
Procyclical severity	Yes	Yes	No
Severity measure	No	No	No
Severity rule	Yes (for unemployment rate)	No	No

Conclusion

- Policy makers' attention has to move to ensuring **coherent, transparent and predictable** use of new regulatory instruments

Implications for a bank capital framework based on Basel III & STs:

- macroprudential coherence of a capital framework based on Basel III & STs requires **procyclical ST severity**
- transparency is enhanced with the introduction of a **stress test buffer**
- predictability benefits from a **constrained discretion** approach based on simple severity measure and rule
- The definition and implementation of such a framework **in the euro area is maybe more challenging** than in other jurisdictions **but equally necessary**