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

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Disclaimer & Source

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Introduction

- Post-crisis financial sector reforms introduced macroprudential tools aimed at enhancing the stability of the system & reducing the volatility of the cycle
- Banks' capital adequacy is established by the Basel III capital standards and by supervisory stress tests (STs)
- Basel III requires banks to build-up buffers during expansions, and allows for their use during downturns
- Supervisory STs assess in a forward-looking manner the resilience of both banks and the system as a whole to adverse macroeconomic shocks

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

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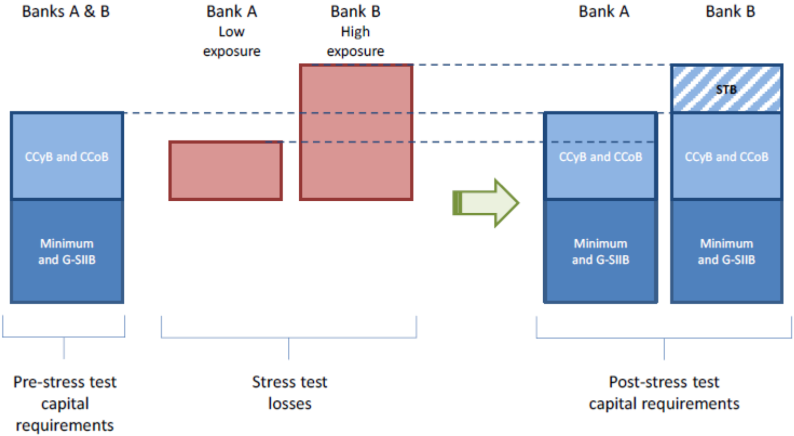
- Define a bank specific Stress Test Buffer (STB) as

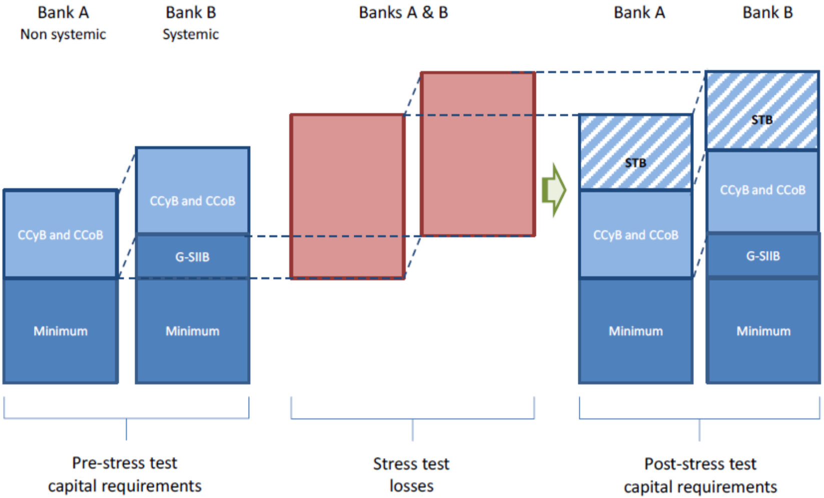
$$STB = \max\left\{\frac{ST\ Losses}{Risk\ weighted\ assets} - (CCoB + CCyB), 0\right\}$$

- 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

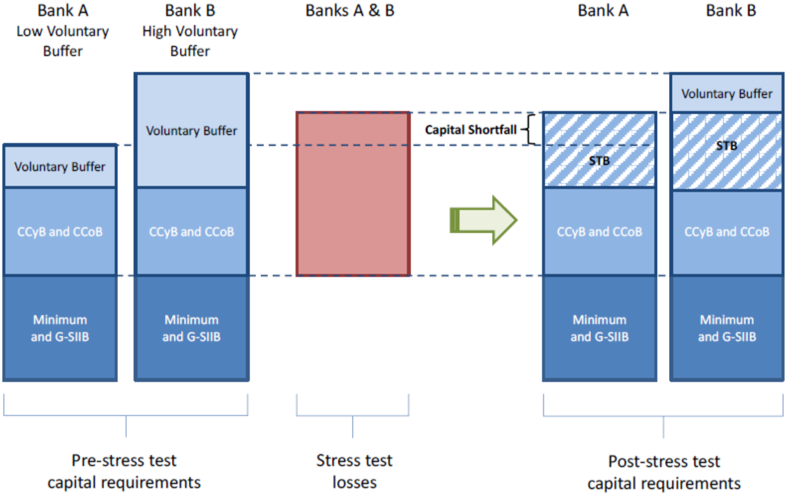
The Stress Test Buffer: illustration



STB & G-SIIB: higher resilience for systemic banks



Voluntary buffer, Stress Test Buffer and capital shortfall



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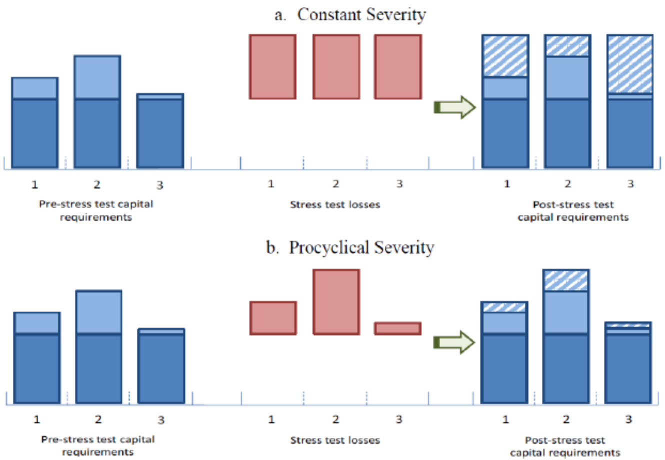
- The build-up of Basel III buffers during expansions to be used in downturns...
- defines a capital framework in which banks are allowed to operate with a lower level of resilience in downturns than in expansions
- Macroprudential coherence requires the level of resilience of STs to follow same cyclical 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

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- 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,...)

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

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- 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**
  - Severity choices of domestic components of scenarios should take into account heterogeneity in domestic financial and business cycles