The Fundamental Principles of Financial Regulation 2

Brunnermeier et al. (2009)

Introduction

- There is a widespread view that the Credit Crunch of 2007-9 was, in part, a result of insufficient reach of regulation and that a solution is to take existing regulation and spread it more comprehensively across more institutions and jurisdictions
- That would be an incorrect diagnosis
- The crisis has involved a regulatory failure as much as anything else

Introduction

- The current regulatory approach assumes that we can make the system safe by simple trying to make sure that individual banks are safe
- In practice, it represents a fallacy of composition
- ***Micro-prudential regulation*** concerns itself with the stability of each individual institution
- ***Macro-prudential regulation*** concerns itself with the stability of the financial system as a whole
- The current micro-prudential regulation should be supplemented by macro-prudential regulation

The Basel Accord

- Recall the Basel accord, in which banks are required to hold as capital at least 8% of their risk-weighted assets
- Assets and off-balance-sheet activities are allocated into 4 categories, each with different weight
  - 1st category: zero weight, covering reserves and government bonds
  - 2nd category: 20% weight, covering claims on banks in OECD countries
  - 3rd category: 50% weight, covering municipal bonds and residential mortgages
  - 4th category: max. 100% weight, covering loans to consumers and corporations

The Basel Accord

- Basel 2 bases on 3 pillars
  - **Pillar 1** links capital requirements for large, internationally active banks more closely to actual risk of three types: market risk, credit risk, and operational risk
  - **Pillar 2** focuses on strengthening the supervisory process in banking institutions and evaluating the process to determine how much capital they need
  - **Pillar 3** focuses on improving market discipline through increased disclosure of information
- However, it is procyclical and does not reflect macro condition.

The Basel Accord

- The problem with Basel II was not so much that it was an incorrect metric of micro-prudential risk (though, of course, it was also that to some extent), but that it took insufficient account of macro-prudential and systemic risk
- It is procyclical as well

Counter-cyclical Regulation

Part 4

Main Principles

- The current regulation is pro-cyclical:
  - Capital adequacy requirement
  - VaR
  - Mark-to-market accounting
- Three main principles of the new regulation
  - Counter-cyclical
  - Prompt reaction
  - Independent of political pressures

Counter-cyclical regulation

Basic Idea

- Capital charges should focus on the risk spillovers an institution causes, or is correlated with, rather than simply the institution's individual risk
- Institutions that cause more negative externalities (risk spillovers) should face higher charges and using predictive analysis ensures a countercyclical regulation
  - Counter-cyclical regulation should be most constraining during the height of a bubble
  - The regulation should base on variables that predict future circumstances, even if the bubble cannot be identified for certain

Counter-cyclical regulation

Capital requirements should be changed

- The new regulation should combine the risk-weighted assets (RWAs) approach (Basel II) with measures of maturity mismatch, market and funding liquidity, and other variables that predict future systemic risk exposure
- Having several measures has advantage of preventing gaming

Counter-cyclical regulation

- Specifically, multiplying the basic capital adequacy ratio (CAR) under Basel II by factor(s) relating to the predicted value of systemic risk (e.g. CoVaR)
  - When there is increasing systemic risk, with increasing leverage, maturity mismatch, credit expansion, and asset price increases, the multiplication factor should be greater than one, while it is less than one during periods of deleveraging

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Counter-cyclical regulation

- This means in a booming period,
  - Leverage, maturity mismatch, asset price, etc. increase
  - Macro factor increases to be higher than 1
  - All the banks will be required to hold additional capital than the requirement in Basel II
- In a recession period,
  - Leverage, maturity mismatch, asset price, etc. decrease
  - Macro factor decreases to be smaller than 1
  - All the banks will be relaxed on capital requirement than in Basel II.

Prompt Reaction

- When a financial institution violates the capital requirements, a prompt and laddered response would be applied, for example
  - 1% below target, supervision could be enhanced
  - 2% below target, dividend payouts could be forbidden
  - 3% below target, bonus payments to CEO and other board members could be disallowed
  - 4% below target, recapitalization or closure

Prompt Reaction

- Recapitalisation of banks in times of crisis is often difficult because banks suffer from a debt-overhang problem
- To overcome this problem, we propose that the regulators have the authority to convert some existing debt into equity
- The aim of this tool is alleviating a systemic crisis and, hence, it should only be invoked when the whole or part of the financial sector is in difficulty

Additional Concerns

- To ensure that the enforcement of these rules is credible, regulators must face the right incentive structure and enjoy a degree of independence that allows them to impose potentially unpopular steps
- Countercyclical measures should be applied on a country-by-country basis, since cycles are not identical and matching across all parts of the world
- The proposal is complex, but should be effective