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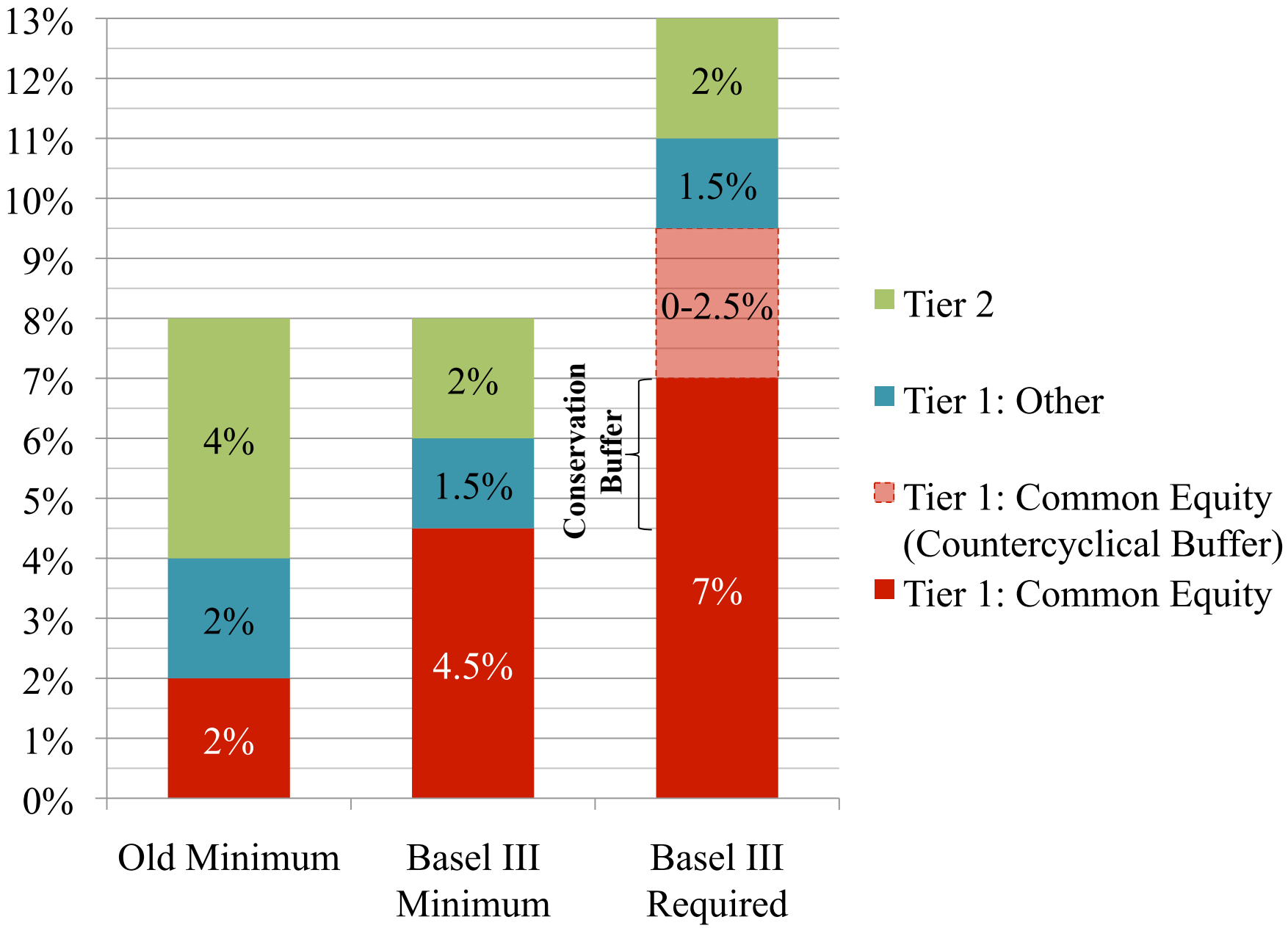
Basel III and Financial Stability: A "decisive breakthrough"?

Basel III: View from the Top

- "A decisive breakthrough" Hervé Hannoun Deputy General Manager, Bank for International Settlements
- "Towards a safer financial system" Jaime Caruana, General Manager of the Bank for International Settlements

Basel III: What's New?

- Change the calculation of the capital adequacy ratio (Capital/risk-weighted assets) by modifying:
  - The numerator: quality and quantity of capital
    - Minimum common equity should be over half of minimum capital required (previously only a quarter)
    - Earning distribution policy via conservation and countercyclical buffers: common equity should be at least 7% of risk-weight assets
  - The denominator: weights and scope of exposures
    - Broader accounting of securitization and derivatives
    - Higher weight on AAA CDO
- Liquidity ratio: short-term and long-term, TBA
- Leverage ratio: Capital/Assets, TBA
  - Complementary information relative to the weighted measure
  - Avoids problems of modeling and measurement errors due to technical limits or decline in risk aversion during expansions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Conservation Buffer
Old Minimum
Basel III Minimum
Basel III Required
Tier 2
Tier 1: Other
Tier 1: Common Equity (Countercyclical Buffer)
Tier 1: Common Equity

Basel III

- Theoretical Framework:
  - Financial crises are exogenous shocks on the economic system (think "tsunami")
  - Size and occurrence of shock is random and drawn from "nature"
  - Effect on the economy depends on the size of market and individual imperfection: amplification instead of self-correction
  - Market discipline helps to contain the effects of a crisis by proactively weeding out unsustainable banks.
- Regulatory consequences:
  - Nothing can be done to prevent the occurrence of financial crises: they are random events unrelated to the economic structure (think "weather")
  - Appropriate financial buffers help to contain the impact of a crisis (think "seawalls") and incentivize prudent decisions.
  - Promote market discipline: the more information is available the more stable the financial system will be.

Basel III: Some Central Positions

- **Banker's view of financial fragility: "will I be repaid?"**
  - High credit risk means high financial fragility
  - Low bank profitability mean high fragility

Problems:

1. Prior to the Great Recession: delinquency rates were very low and profitability of banks was high.
2. Rising default rate and declining profitability are coincidental with financial crises

- **Market discipline works:**
  - Financial market participants are interested in detecting financial problems
  - Higher capital means higher stakes and so more prudent behaviors

Problems:

1. Financial stability or instability is secondary, what matters is profit: if profit can be made from instability it will be encouraged by market participants
2. Most participants make money from volatility not from stability.
3. Financial market participants may disregard information that goes against profitability even if this information shows an accumulation of problems

Basel III: Some Critical Position

- **More capital (and liquidity) means more prudent behaviors**

Problems:

1. Greenspan acknowledges he was baffled by what happened: "I made a mistake in presuming that the self-interest of organizations, specifically banks and others… [was] best capable of protecting their own shareholders and their equity in the firms."
2. Toward the end of the savings and loan crisis, James B. Thomson, of the Federal Reserve Bank of Cleveland, concluded that "book solvency is positively related to failure"
3. Capital ratios were much higher in the 1800s and early 1900s, still massive crises
4. More capital provides a sense of safety -> take more risks on asset and liability sides.

Alternative Point of Departure

- Minsky: "Stability is destabilizing"
  - The impact of a financial crisis depends on the level of financial fragility
  - Period of economic stability promote the growth of financial fragility through:
    - Market mechanisms
    - Psychological propensities
    - Policy actions that increase the cash outflow and decrease the cash inflow of the private sectors

Financial Fragility: Credit Risk or Position-Making Risk?

- Financial fragility: risk of a debt deflation resulting for the realization of a financial risk (credit risk, interest-rate risk, etc.)
- The higher position-making operations relative to the size of debts the higher financial fragility.
- Position-making operations: defensive refinancing operations or liquidation of assets needed to service debts

Financial Fragility: Credit Risk or Position-Making Risk?

- Focus on underwriting rather than credit risk:
  - Asset-based vs. income-based lending
  - Checking amount of refinancing expected
  - Checking cash-flow: operational net cash inflows relative to cash outflows induced by (on- and off-) balance sheet liabilities
- Systemic view of financial fragility: "HOW will I be repaid?":
  - Liquidation of assets is an abnormal macroeconomic source of funds to service debts: if everybody does it there is a debt-deflation
  - A prime borrower who is expected to repay his debts by selling assets or refinancing is highly fragile: low default rate but high fragility
  - High credit risk with mostly income-based lending limits the risk of debt deflation

⇒ From the point of view of a banker (will I be repaid?), individual banks may be strong, but from the point of view of financial regulation (HOW will I be repaid?), the banking system is highly fragile.

Conceptualization of Financial Fragility

- Hedge:
  - Cash flow aspect: E(income) > E(debt service)
  - Balance sheet aspect: No expected position-making operations (refinancing, asset liquidation) to service debts.
- Speculative
  - Cash flow aspect: E(income) > E(interest service)
  - Balance sheet aspect: expect position-making operations to be stable relative to outstanding debt
- Ponzi:
  - Cash flow aspect: E(income) < E(debt service)
  - Balance sheet aspect: expected position-making operations to grow relative to outstanding debt

⇒ High fragility means a high proportion of Ponzi finance in the economy => even usual fluctuations in income, interest, or default lead to big problems.

Additional Insights on Ponzi Finance

- Two forms of Ponzi finance:
  - Income based: temporary increase in position making operations until core business can generate revenues form use of asset (investment) to service debts
  - Asset based (Pyramid Schemes): permanent rise in position making operation, income from assets will never cover debt service payments => highly prone to debt deflation
- Ponzi finance is different from bubble: no assumption is made about the correctness of the valuation of assets, just need rising asset prices (net worth)
- Ponzi finance is different from fraud: concerned with methods used to service debts

Regulatory Implications

- Regulate underwriting of loans and securities
  - Forbid asset-based Ponzi finance in financial institutions that have access to a government safety net
  - Qualify borrowers on the basis of full debt service payment
  - Title 14 of Dodd-Frank Act
- Central banking
  - Banks are involved in Speculative finance by the nature of their business: provide a smooth low cost refinancing source
  - Encourage discount window as normal refinancing source
  - Select eligible assets
  - Complement microprudential regulation (focused on asset quality and bank management through credit risk, market risk etc.) with macroprudential regulation that focuses on cash flows and expected position making operations.
  - Bank profitability is not a relevant criterion to judge financial fragility (institution involved in Ponzi finance and frauds are usually very profitable for a while and can capture the market share of banks that stay prudent: profitable banks are rotten, unprofitable banks are sound)

Regulatory Implications

- Financial innovations
  - Promote hedge financing
    - Provide subsidies to create safer financial instruments, i.e. instrument hat promote hedge finance
    - Patent system?
  - Supervise financial innovations like any other product
    - Cash flow characteristics: highly predictable, volatile, large payment shocks?
    - Financial characteristics of users that can assess an innovation
    - Constantly supervise changes in the use of existing instruments and change of business practices.

Conclusion

- Basel III will not contribute to reduce financial instability in terms of frequency or size:
  - Theoretical premises consider financial instability to be an anomaly rather than the normal result of market mechanisms => focuses on market discipline, let financial innovations unchecked, minimalist approach to regulation
  - Banker's view of soundness rather than systemic view: focuses on asset quality and fraud management, ignores funding of assets and position-making needs