



University of  
Zurich<sup>UZH</sup>

Institute of Law

# Bank Capital Regulation

International Financial Law  
Lecture 3  
Professor Kern Alexander

<https://www.linkedin.com/in/prof-dr-kern-alexander-958b0011b/>

5 March 2026



- 1. Introduction**      **The Concept of Capital**
- 2. Basel I**      **The Basel Accord 1988 – *international law?***
- 3. Basel II**      **Internal Models and Capital Efficiency**
- 4. Basel II.5**      **Trading Book vs Banking Book**
- 5. Basel III**      **Post-crisis banking regulation**
- 6. Basel IV**      **Current developments**

## **Mandatory Readings:**

**Week 2-      *Principles of Banking Regulation, chapter 4***



# Economic rationale for bank regulation

Asymmetric information

- Depositors and banks
- Banks and borrowers Externalities
- To other banks To depositors And to others

*Regulation is necessary because markets fail*

*Financial stability is a public good*



## Bank Capital – an Introduction

Traditional view of international regulatory standards: banking system regarded as safe if the largest banks are safe

Different definitions of ‘capital’ (accounting / tax / regulatory)

Regulatory capital is what a firm (regulated by its national regulatory agency) is required to hold against potential Unexpected Losses (ULs)

Economic capital – is what a firm holds against Expected Losses (ELs). This is deemed to be covered by pricing, provisions, reserves and current year profits: a ‘reserve’ or cushion for creditors to whom legal obligation is owed

Economic capital v regulatory capital

Legal capital (company law) – paid-up equity capital (not in this course)



## Capital adequacy – *economic theory*

### 1. **Economic capital:**

- ‘the methods or practices that allow banks to consistently assess risk and attribute capital to cover the economic effects of risk-taking activities.’ *BIS (2009)*.  
Derived from banks’ models & data.

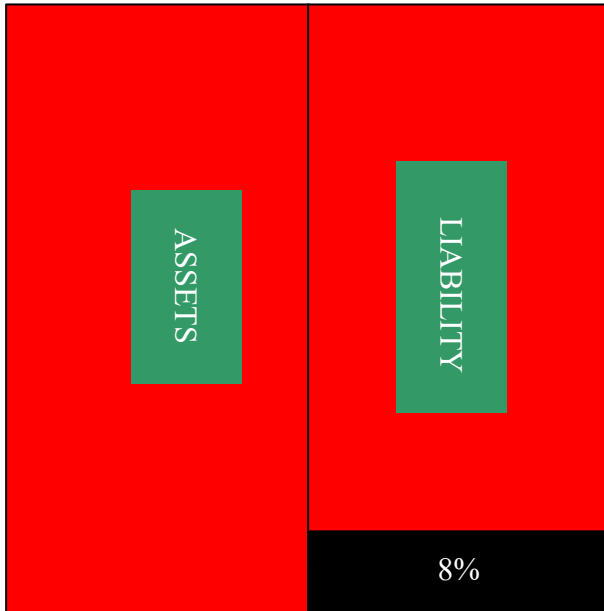
### 2. **Regulatory capital:**

- Should be calculated mainly as a charge (not only as a ‘reserve’ or buffer) on bank risk-taking. A *second (or third)-best* approach at approximating the social costs of bank risk-taking; aims to reduce the negative externality; not merely to absorb losses to pay creditor claims

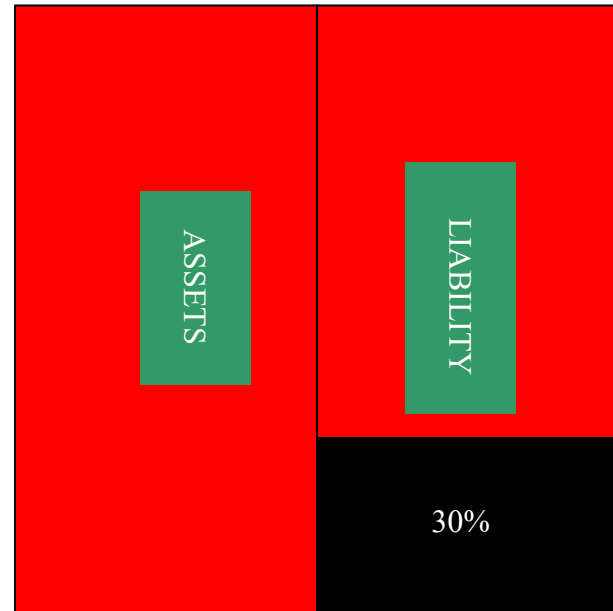


# Company Capital

## Banks



## Corporates



- 2019: BCBS has a mandate to strengthen the regulation, supervision and practices of banks worldwide with the purpose of enhancing financial stability
- Co-chairs: Frank Elderson (ECB) and Kevin Stiroh (FedNY)
- ‘Legal hierarchy’ of the Principles within the Basel Framework: **Guidelines**
  - Elaborate BCBS standards
  - Generally supplement them by providing additional guidance for their implementation →

## Basel Committee Charter

*Updated 5 June 2018*

### V. BCBS standards, guidelines and sound practices

#### 12. Standards

The BCBS sets standards for the prudential regulation and supervision of banks. The BCBS expects full implementation of its standards by BCBS members and their internationally active banks. However, BCBS standards constitute minimum requirements and BCBS members may decide to go beyond them.

The Committee expects standards to be incorporated into local legal frameworks through each jurisdiction's rule-making process<sup>5</sup> within the pre-defined timeframe established by the Committee. If deviation from literal transposition into local legal frameworks is unavoidable, members should seek the greatest possible equivalence of standards and their outcome.

#### 13. Guidelines

Guidelines elaborate the standards in areas where they are considered desirable for the prudential regulation and supervision of banks, in particular international active banks. They generally supplement BCBS standards by providing additional guidance for the purpose of their implementation.

#### 14. Sound practices

Sound practices generally describe actual observed practices, with the goal of promoting common understanding and improving supervisory or banking practices.

BCBS members are encouraged to compare these practices with those applied by themselves and their supervised institutions to identify potential areas for improvement.

<https://www.bis.org/bcbs/charter.htm?m=3070>



## Basel I (1988)

- Only credit risk for bank lending
- 5 risk-based categories for loans (too crude a risk measure)
- Tier 1 regulatory capital vaguely defined (open-ended definition)

## Basel II (2004)

- Credit, market & operational risks (C, M, OR)
- Internal models (AIRB & Foundation) and Standardised approaches
- Core tier 1 regulatory capital only 2% against risk-based assets

## Basel III (2010)

- C, M, OR + Liquidity risk, increased core tier 1 capital and disclosure to market, governance and stress testing; SIFI surcharge

## Basel IV (2017)

- \* Less reliance on models (RWA not less than 70% of standardised assets; SIFI leverage surcharge; CVA adjustment limits)

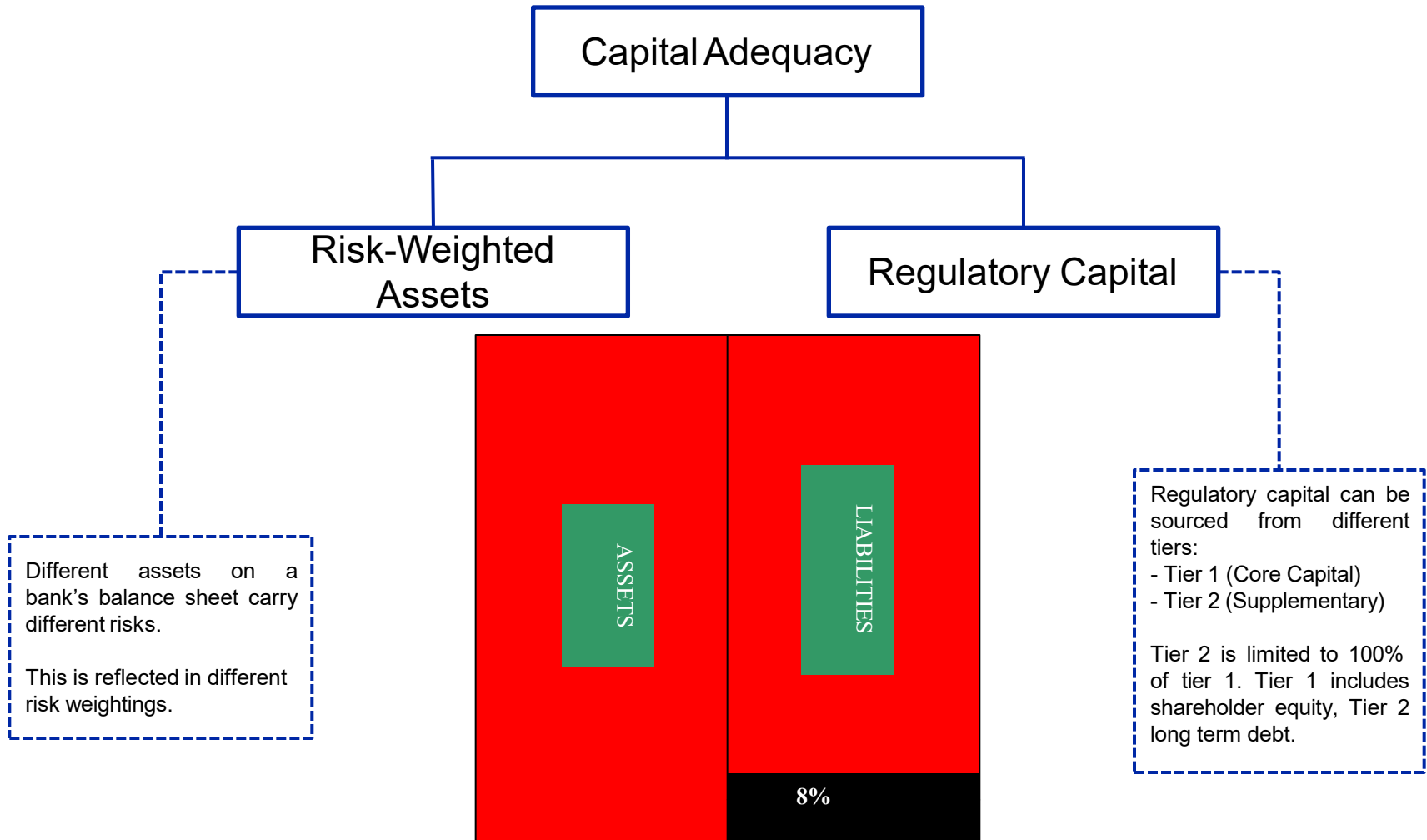


## 1988 Basel Capital Accord (Basel I)

- A common capital adequacy standard
- Defines capital as equity and subordinated debt
- Defines a measure of credit risk called risk-weighted assets (RWAs)
- Banks required to operate with minimum ratio of capital to RWAs of 8%

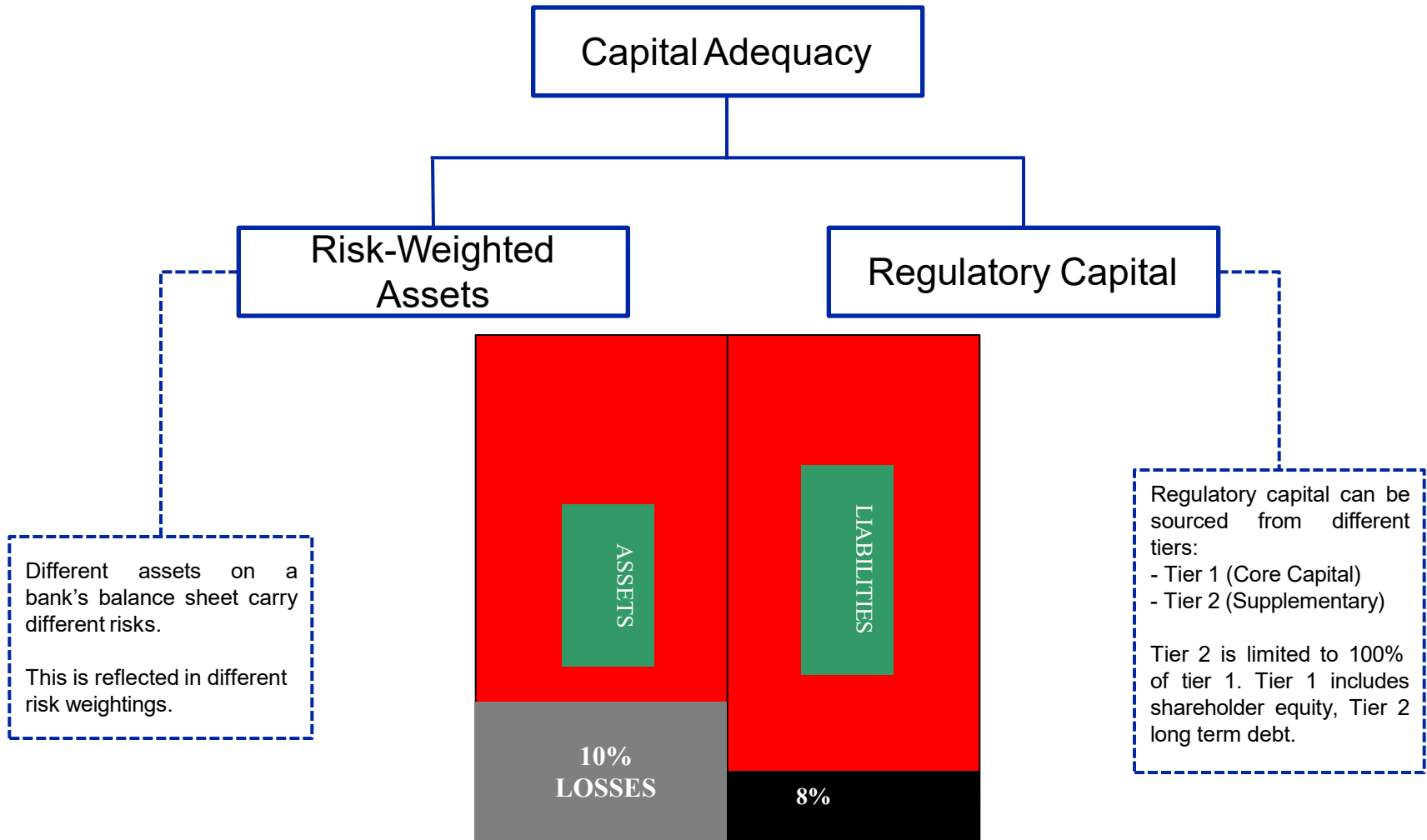


# Basel I





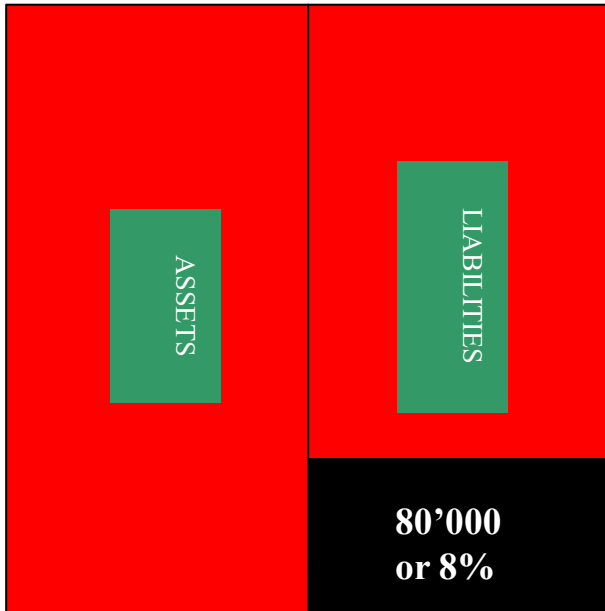
# Basel I





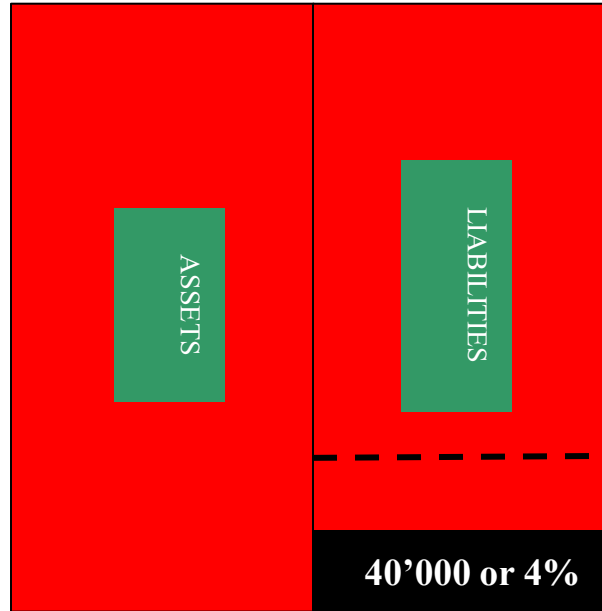
# Importance of Risk Weighting

Basel I Regulatory risk weight



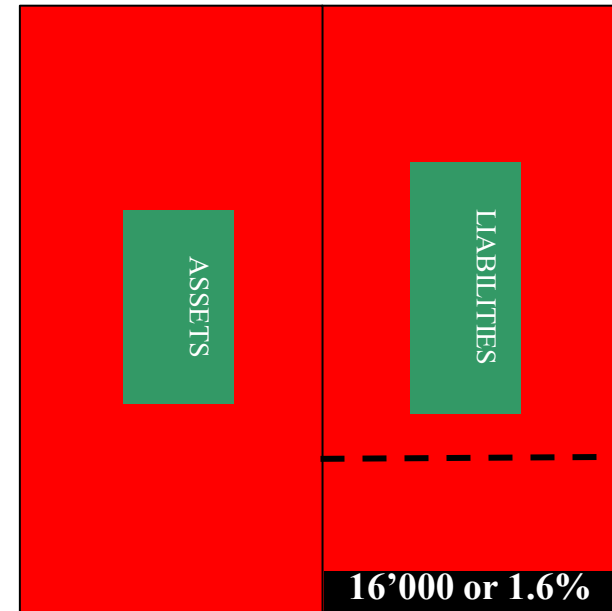
Capital for a **\$1Mio asset** under Basel I: **\$80'000** or 8% of value

Asset with risk weight at 50%



Capital for a **\$1Mio asset** with model showing risk weight equivalent to 50% of asset's value: **\$40'000** or 4% of value

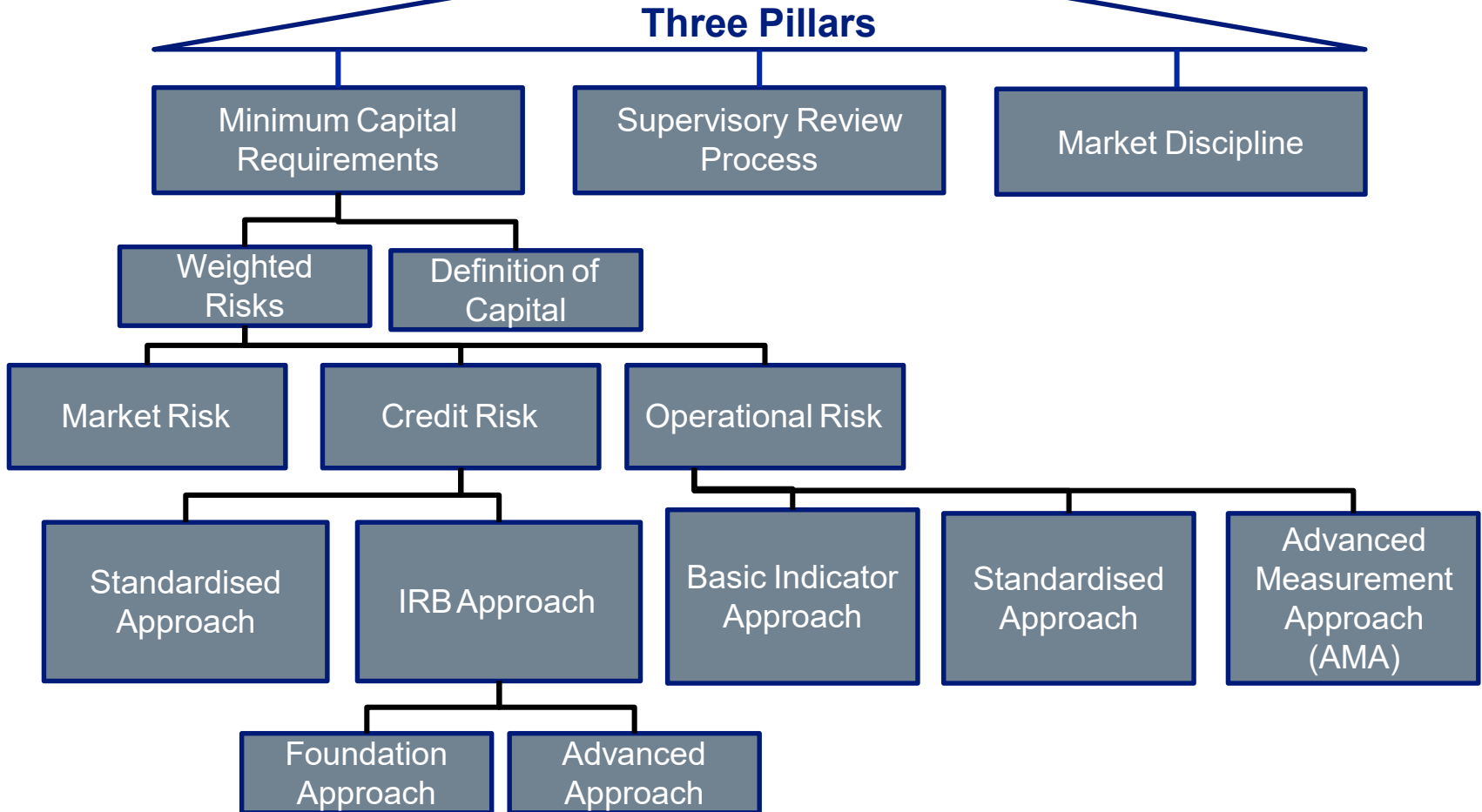
Asset with risk weight at 20%



Capital for a **\$1Mio asset** with model showing risk weight equivalent to 20% of asset's value : **\$16'000** or 1.6% of value



# Basel capital framework II





## Trading book – covered by Basel II and III

### 1. Banking book

- contains traditional bank loans and equivalents held until maturity. Longer-term risk, higher capital charge, but valuation based on book value (not 'mark to market')

### 2. Trading book

- attracted smaller (equity) capital charge because assets are considered to be tradable (i.e. liquid) – see Market Risk Amendment of 1996. Incentive to shift assets from banking book to trading book. For example, mortgages, once securitized, could be held on this supposedly liquid trading book to avoid the more rigorous credit process applied to the banking book.
- But during turbulent markets trading book assets (bonds) have to be marked to market (ie., sovereign or corporate bonds). Incentive to reclassify the bond value based on banking book's held-to-maturity valuation



## Basel III

***“Strengthen global capital and liquidity rules with the goal of promoting a more resilient banking sector.”***

- Quality, consistency and transparency of regulatory capital will be increased
- Risk coverage of capital framework revised and expanded
- Leverage ratio as supplementary measure to the existing model-based framework
- Series of measures for the reduction of procyclicality & stronger provisioning practices (forward looking)
- Enhanced governance and risk management oversight in pillar 2
- Additional capital and liquidity to reduce externalities created by SIFIs



Tier 1		Tier 2
<b>CET1</b>	<b>AT1</b>	Hybrid instruments with maturity of not less than 5 years
Ordinary shares, retained earnings and certain reserves	Perpetual instruments (no fixed maturity)	Typically in bond format
No redemption costs or mandatory payments	May have call option for bank after 5 years of issue date	Issuer may call the instrument after 5 years but there can be no incentive to redeem
Rank below creditors in insolvency	Subordinate to senior creditors and depositors in insolvency	Generally, not loss-absorbent and disfavoured by regulators

## Definition of Regulatory Capital



## Basel III-Capital Buffers – Lessons from 2008 crisis

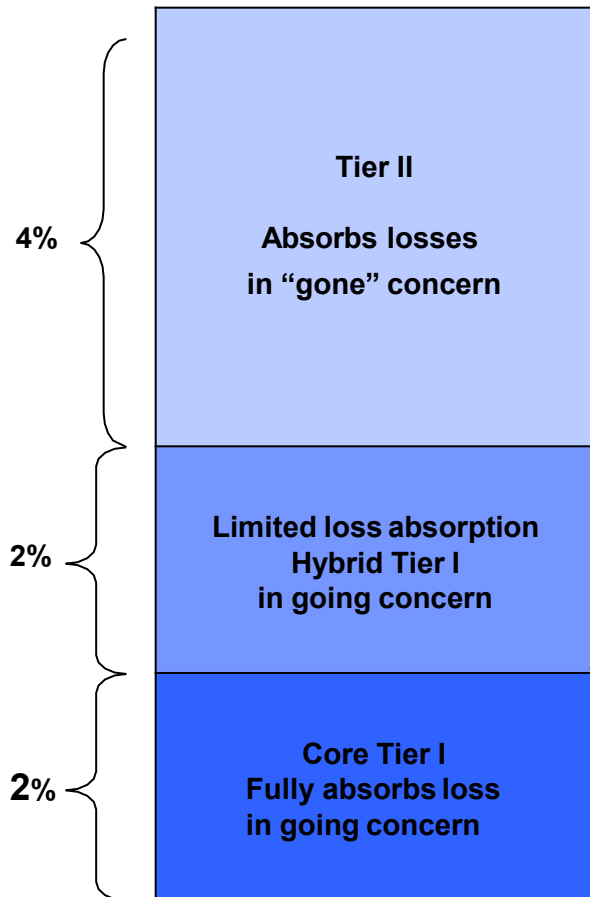
- Raising capital during times of stress is expensive and difficult;
- Banks should seek to operate with some capital in excess of regulatory minimum to provide a buffer against the impact of loss;
- Outside periods of stress banks should hold buffers of capital that can be drawn down;
- Once drawn down, there are constraints on the distribution of capital (including dividends and discretionary bonus payments to staff) until buffers replenished;
- Ensures that shareholders, and not depositors, bear the risk that stresses will not ease.



# Basel III

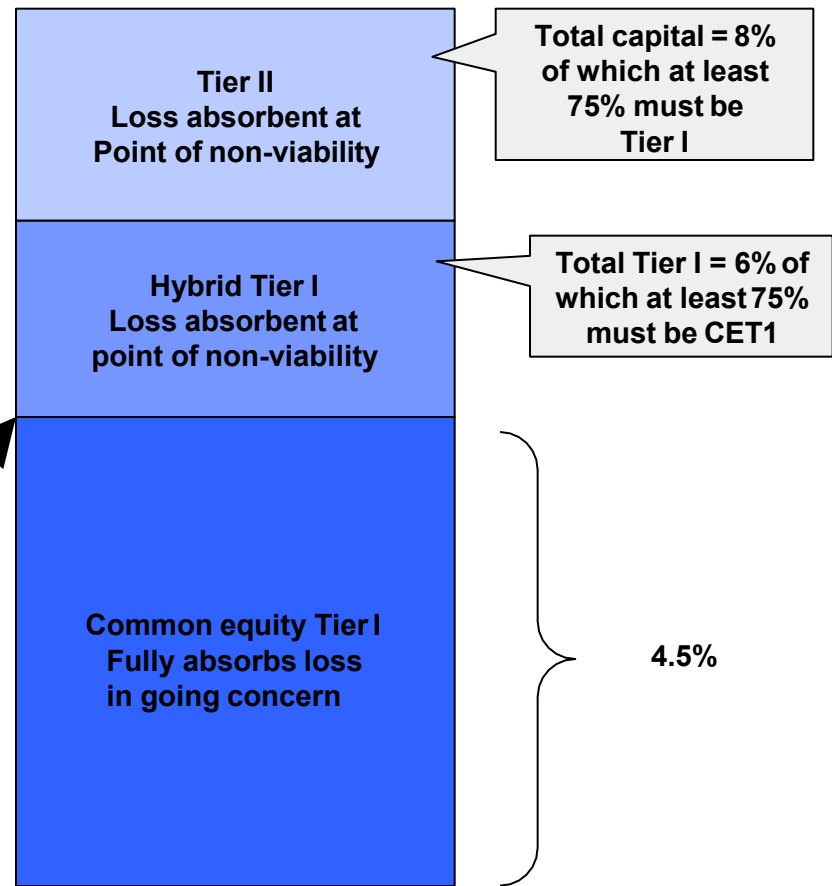
## Basel II / CRD III

Total requirement 8% of RWA



## Basel III / CRD IV\*

\* Excludes capital conservation and countercyclical buffers





# Basel III

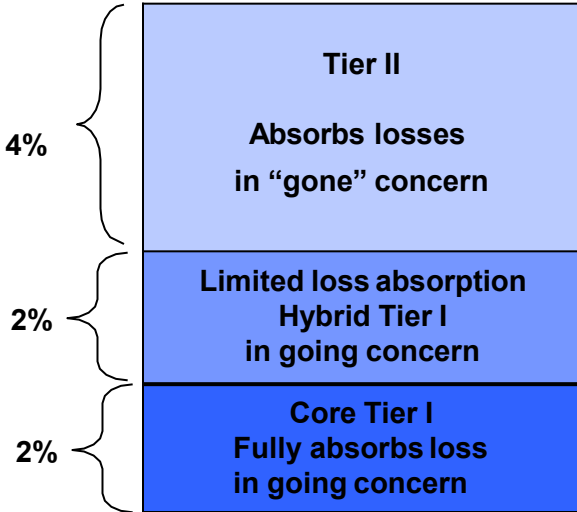
**G-SIFI surcharge (CET 1)**  
 Varies from 1.0% to 2.5% of RWA based on index of systemic importance (size, interconnectedness, lack of substitutability, global (cross-jurisdictional) activity and complexity)

CET1

CET1

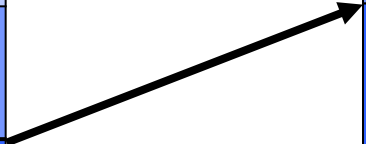
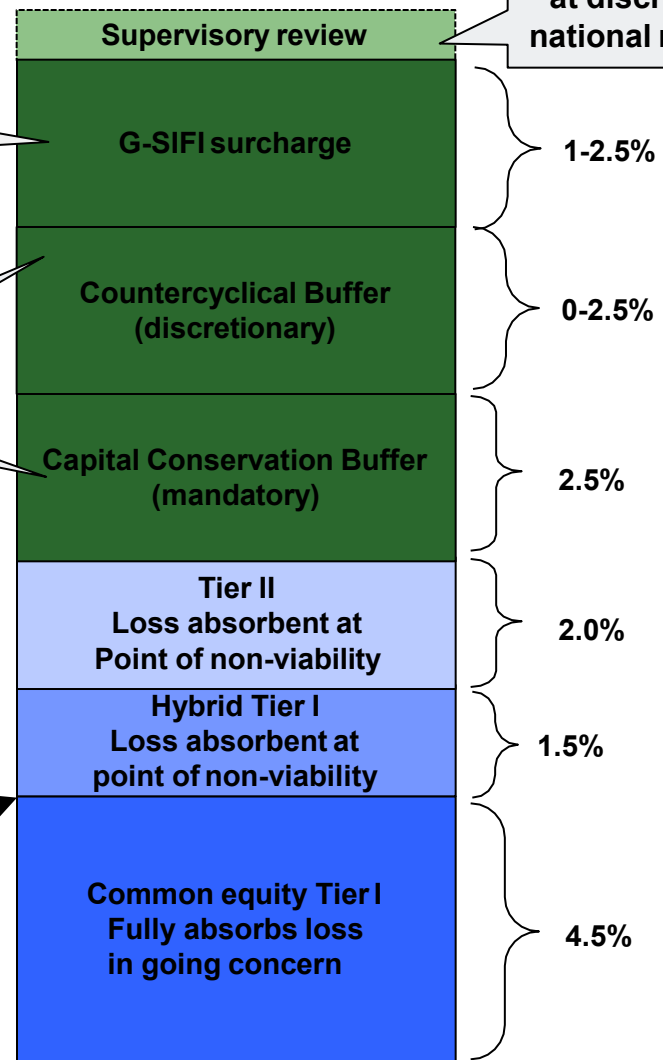
## Basel II /CRD III

Total requirement 8% of RWA



## Basel III / CRD IV

Additional capital at discretion of national regulator





# Basel III-Determining G-SIBs

## Indicator-based Measurement Approach

12 indicators to reflect attributes of systemic importance grouped into the following five categories:

1. size
2. interconnectedness
3. substitutability
4. cross-jurisdictional activity
5. complexity



## G-SIBs as of November 2024

Bucket	G-SIBs
5 (3.5%)	-
4 (2.5%)	JP Morgan Chase
3 (2.0%)	HSBC, Citigroup
2 (1.5%)	Barclays, BNP Paribas, BOA, Goldman Sachs, Deutsche Bank, Bank of China, ICBC, Mitsubishi UFJ FG...
1 (1.0%)	Agricultural Bank of China, Credit Suisse, Nordea, Royal Bank of Scotland, Santander, Standard Chartered, UBS, State Street, Morgan Stanley, CCB, Crédit Agricole, Mizuho FG...



- **Operational risk** is “the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events.” Basel Committee
- EBA review EU banks confirmed that OR most often falls under the “Clients, Products & Business Practices” and “Internal fraud” categories of the Loss event type classification under Article 324 of the Capital Requirements Regulation.



## Operational risks – case study (2019)

UK Metro Bank mis-reported to the regulator its risk-weighted assets in standardised approach to qualify for lower capital requirement



Once it discovered the mistake, it failed to inform its regulators – the Bank of England/PRA.

Regulator later discovered the errors and cover-up and imposed fines £600 million in disciplinary action



## Leverage ratio

$$\frac{\text{Tier 1 Capital}}{\text{Total Exposure}} \geq 3\%$$

- ❑ 3% minimum requirement became a Pillar 1 minimum requirement in 2018
- ❑ Banks required to make a regular set of disclosures on the level and composition of their leverage ratios



## Leverage ratio

- Excessive levels of leverage in the build up to the financial crisis were a significant factor in the stress and failure of many banks
- Leveraged funding of assets with liabilities rather than equity
- Leverage ratio - a Capital Measure (Tier 1 capital) divided by an Exposure Measure (on-balance sheet assets, derivative exposures, securities financing transaction exposures and off-balance sheet items) □ To act as backstop to the risk-based requirement
- 3% minimum requirement became a Pillar 1 minimum requirement in 2018
- Banks required to make a regular set of disclosures on the level and composition of their leverage ratios



## Liquidity Gap

Amount of assets that will mature in a certain time period (timeband)

Amount of liabilities that will mature within the same time period

$> 1$

- Bank management must manage the risks of the *liquidity gap*
- *Satisfactory Liquidity*
- Liquidity risk is essentially the risk of being unable to honour deposit withdrawals or repay other liabilities at maturity



## Liquidity requirements: LQR

Liquidity Coverage Ratio (LCR)

**Stock of High Quality Liquid Assets**

**Total Net Cash Outflows over a 30 day period**

**>100%**



## Liquidity requirements: NSFR

### General rule:

Net Stable Funding Ratio (NSFR)

**Available amount of stable funding**

**—————**

**Required amount of stable funding**

**>100% over 1 year**

**For residential mortgages designed to support banks in making home mortgage loans:**

**Available amount of stable funding**

**—————**

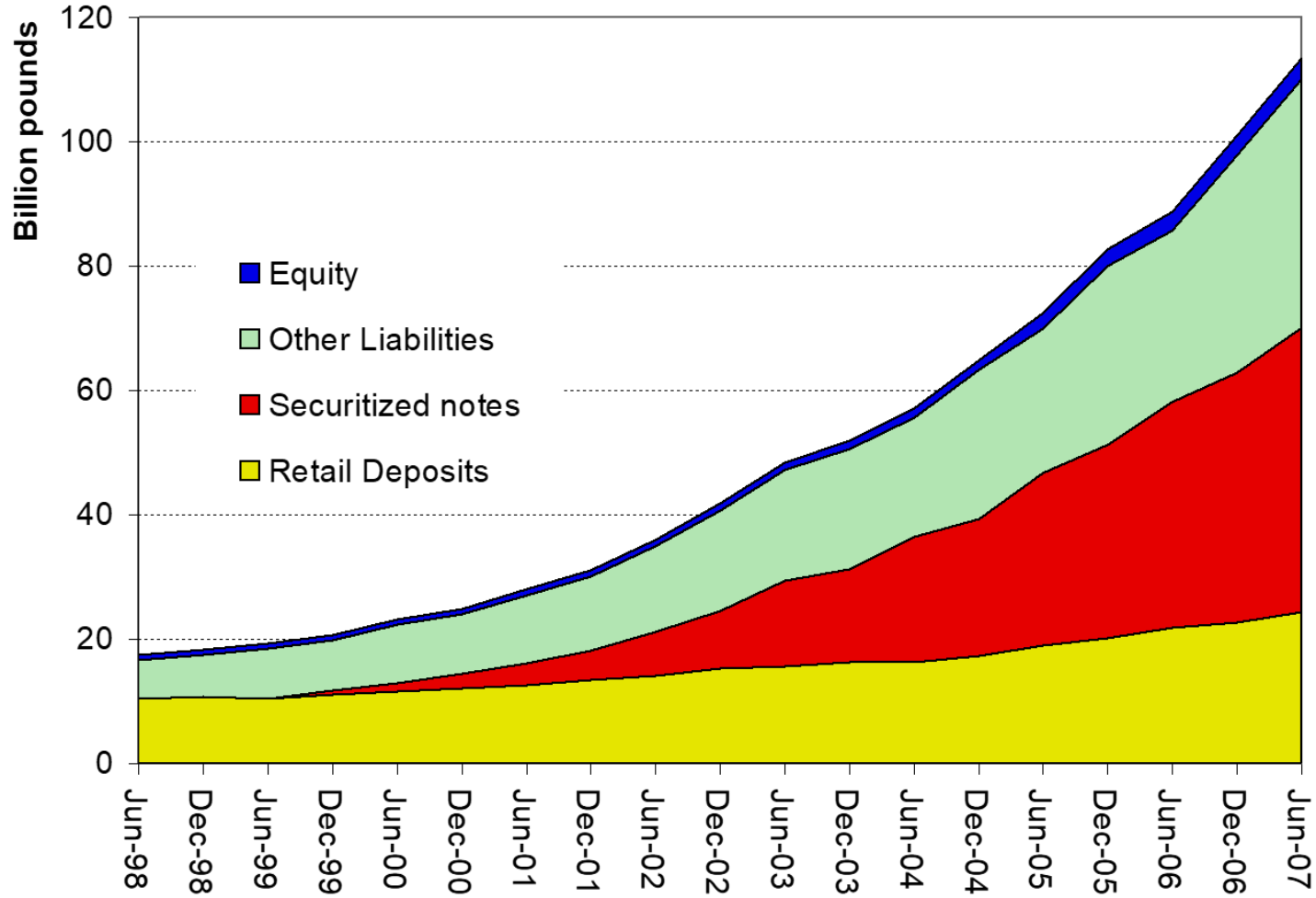
**Required amount of stable funding**

**>65% over 1 year**



# Composition of Northern Rock's Liabilities

(June 1998 - June 2007)





# Liquidity requirements

## Liquidity Coverage Ratio (LCR)

- ▶ Banks should have sufficient high quality, unencumbered assets in order to meet stress scenario, specified by the supervisor
- ▶ Stock of high quality liquid assets > 100% (broadened to include more sovereigns and level 2 assets 40% of stock – e.g., covered bonds, non-financial corporates)
- ▶ Net cash outflows over 30 days
  - ▶ Run off rate floors reduced - e.g., retail/ SME-SME lowered to 5% (stable), 10% (less stable)

## Net Stable Funding Ratio (NSFR)

- ▶ Intended to promote longer-term structural funding by requiring that the ratio of available stable funding to required stable funding exceeds 100% over a one year time horizon.
- ▶ Available amount of stable funding > 100%
  - ▶ Considering raising available stable funds factors for retail & SME
- ▶ Lower required stable funding for residential mortgages – 65% not 100%
  - ▶ Transition observation phase up to 1st January 2018

## Reporting

- ▶ Contractual cash flow mismatch reporting (regulatory report)
- ▶ Concentration of funding (regulatory report)
- ▶ Available unencumbered assets (regulatory report)
- ▶ Market-related monitoring tools



## Governance dimension:

### Basel III requires robust Pillar 2 implementation

- Corporate governance failures in banks one of the causes of the 2007 crisis.
- Citi's board of director's failures (former Treasury Secretary Robert Rubin on Citi board):

*“the bank’s directors were the principal authors of its difficulties, in view of the ‘reckless business model’ that they pursued”*

- De Larosière Report:

*“in Europe, failures in risk assessment and risk management were aggravated by the fact that the checks and balances of corporate governance also failed”*



## Governance dimension: Basel III robust Pillar 2 implementation

- Regulators now focus on risk management and corporate governance
- Institutions can be subject to discretionary Pillar 2 capital charges
- Stress testing is a core part of the capital framework which sits alongside risk-based capital and leverage requirements. Stress tests provide an integrated forward-looking assessment of resilience and aim to ensure that banks can continue to support the real economy even in difficult economic conditions.
- The Bank of England develops regular stress testing of the UK banking system to assess the system's capital adequacy. Banks are expected to also perform their own stress tests.



## Basel III – Pillar 2

- Supervisory Review of **Capital Adequacy** as regulatory response to the first pillar
- Framework dealing with systemic, concentration, strategic, reputational, liquidity and legal risks
- Internal Capital Adequacy Assessment process (**ICAAP**) as a result of Pillar 2
  - Bank internal process is subject to supervisory review and intervention
- Four important elements in any ICAAP:
  - assessment (identification & measurement) of actual and potential risks
  - application of risk mitigation techniques
  - stress-testing techniques
  - role of the board of directors and management
- Supervisory Review Evaluation Process (SREP)
  - Stress testing – scenario analysis



# Basel III – builds on Basel II framework

Pillar 1	Pillar 2	Pillar 3
Minimum Capital Requirements	Supervisory Review Process	Market Discipline
Additional / Refined Capital Basis - Liquidity Coverage Ratio (LCR) - Net Stable Funding Ratio (NSFR) - OTC Derivatives Charge - <b>Quality and Level of Capital</b> - Leverage Ratio - Capital Conservation Buffers - Countercyclical Buffers - Enhanced Loss Absorption Clause (Write-Off or Debt Conversion)	Supervision (Dialogue) - Firm-wide Corporate Governance - Managing Risk Concentrations - Alignment of LT Incentives - Sound Compensation Practices - Supervisory Colleges <b>Capital (ICAAP)</b> - Firm-wide Risk Management - Valuation Practice, Stress Tests <b>Supervisory Review Evaluation Process (SREP)</b> - Capital	<b>Additional / Enhanced Disclosure</b> - Risk Management <ul style="list-style-type: none"> <li>• Market</li> <li>• Credit</li> <li>• Operational</li> </ul> - Regulatory Capital Components - Detailed Reconciliation of Capital - Regulatory Capital Ratios - Securitisation Exposures

ICAAP and SREP can be used to assess portfolio risk exposures to systemic risks

Standardised or harmonised disclosure of information about exposure to, and management of, systemic risks could form part of additional or enhanced disclosure requirements



## Basel III – summing up

### Regulatory change- Basel III

#### Increasing the quantity and quality of bank capital

##### Quality of bank capital

- \* Tier1 will be largely equity and reserves

##### Quantity of capital

The overall ratios will rise and a leverage ratio to be introduced

- \*Capital conservation
- \*Countercyclical capital buffer
- \*Forward looking provisions?

- \*Capital requirements increasing
- \*Trading book and securitisations

##### Global requirements for liquidity buffers

- \* Liquidity coverage ratio – requires stock of high quality liquid assets
- \*Stable funding ratio- illiquid assets have to be backed by stable funding

##### Counterparty risk

- \*Changes to capital requirements

- \*Changes to risk management
- Enhanced reporting – Pillar 3 - market discipline



# Basel IV reforms (‘Basel IV endgame’)



## Background – Dec 2017

“The package of reforms endorsed by the Group of Central Bank Governors and Heads of Supervision (GHOS) now **completes** the global reform of the regulatory framework, which began following the onset of the financial crisis.” Mario Draghi, Chairman of the GHOS

"These reforms will help **reduce excessive variability in risk-weighted assets** and **will improve the comparability and transparency of banks' risk-based capital ratios**. Now that the Basel III regulatory reform agenda is complete, we must focus on the important task of ensuring the standards are implemented consistently around the world. The Committee, through its **Regulatory Consistency Assessment Programme**, will therefore continue to monitor closely the implementation of the Basel III standards." Stefan Ingves, Chairman of the Basel Committee (Dec 2017)



## Basel IV - Output floor – key elements

An aggregate output floor, which will ensure that banks' risk-weighted assets (RWAs) generated by internal models are no lower than 72.5% of RWAs as calculated by the Basel III framework's standardised approaches. Banks will also be required to disclose their RWAs based on these standardised approaches (details on disclosure to follow in a consultation paper)

- Revised floor places a limit on capital benefits a bank using internal models can derive relative to the standardised approaches



## Key elements-credit risk

A revised standardised approach for credit risk, which will improve the robustness and risk sensitivity of the existing approach

- For example, Basel II standardised approach assigns a flat risk weight to all residential mortgages. In the revised standardised approach, mortgage risk weights depend on the loan-to-value ratio of the mortgage

Revisions to the internal ratings-based (A-IRB) approach for credit risk, where the use of the most advanced internally modelled approaches will be limited to low-default portfolios

- For example, banks will use the foundation IRB (F-IRB) approach for exposures to large and mid-sized corporates, banks and other financial institutions (ie asset classes that cannot be modelled in a robust and prudent manner) which applies fixed values to loss-given-default and exposure at default parameters



## Key elements-G-SIB leverage ratio buffer

A leverage ratio buffer for global systemically important banks (G-SIBs), which will take the form of a Tier 1 capital buffer set at 50% of a G-SIB's risk-weighted capital buffer

- For example, a G-SIB subject to a 12% risk-weighted higher-loss absorbency requirement will be subject to a 6% leverage ratio buffer
- Capital distribution constraints will be imposed on a G-SIB that does not meet its leverage ratio buffer



## Summing up

Transition to regulatory reforms will require additional costs in capital and liquidity buffers. Regulatory capital should be a constraint on the growth of assets

- Capital Regulation – more macroprudential and focused on systemic risks. Basel IV limits use of risk weightings
- Liquidity identified as important problem
- Pillar 2 focus on supervisory approach to bank corporate governance and risk management
- Environmental risks (climate change) (Lecture 5)



## Swiss Regulatory Reforms – Focus: UBS

- Background: Following the emergency takeover of Credit Suisse by UBS in March 2023, the Swiss Federal Council published a comprehensive reform package on 7 June 2025 aimed at strengthening financial stability and oversight.
- Objectives of the Reform:
  - Limit systemic risks posed by large institutions
  - Establish clear individual accountability in leadership
  - Enable earlier crisis detection and intervention
  - Reinforce trust in Swiss financial supervision
- Implementation Timeline: Consultation in Autumn 2025  
→ Legislation by 2026 → In force from 2028 at the earliest.



## Stricter Capital Requirements

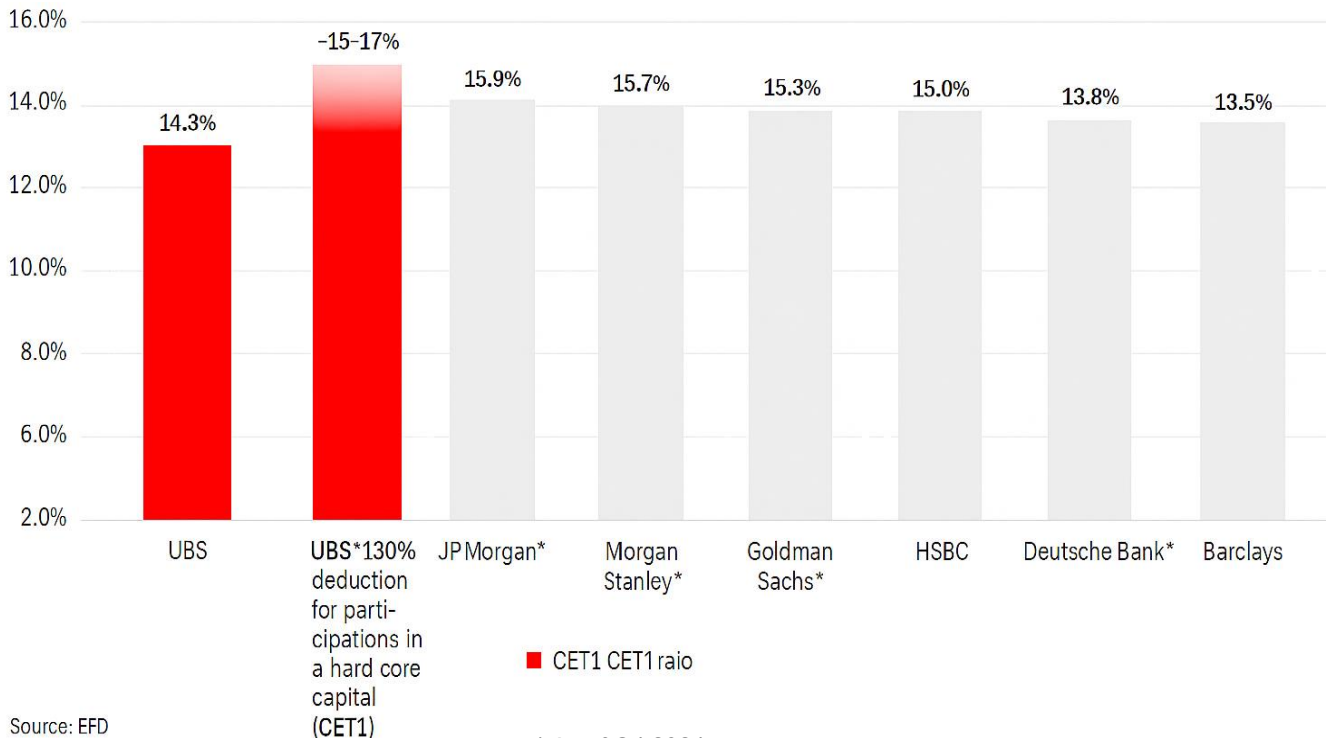
- Full deduction of investments in foreign subsidiaries from CET1 (UBS AG level):
  - Current requirement: 60% of capital in foreign subsidiaries backed by CET1.
  - Proposed requirement: 100%, *i.e., full deduction of the book value of UBS AG's equity stakes in overseas subsidiaries from CET1 capital.*
  - UBS estimates this would require \$23 bn more CET1 capital.
- Stricter valuation rules for intangible assets (software, DTAs) to enhance loss-absorbency, plus stricter prudential valuation adjustments (PVAs).
- Total incremental CET1 capital required at UBS AG:
  - Estimated at \$24 bn, reflecting all proposed adjustments.
  - CET1 ratio at UBS Group level would increase to 19% before, and fall to 17% after deductions.
  - Combined with Credit Suisse integration requirements, total CET1 impact: \$42 bn.



# Stricter Capital Requirements: Core Capital Ratios in an International Comparison

## Core capital ratios in an international comparison

If all measures proposed by the Federal Council were implemented, UBS' Common Equity Tier 1 (CET1) ratio would, according to current estimates, be slightly above that of other internationally active major banks. To some extent, this ratio can also be influenced by management decisions.





# Swiss Capital Reform Debate (since Federal Council Proposal, 2025-2026)

## Federal Council Proposal (June 2025)

- Part of the Swiss government's post-Credit Suisse reform package to strengthen financial stability.
- Proposal: require 100% CET1 backing of UBS AG's equity investments in foreign subsidiaries (currently ~60%).
- Aim: ensure the Swiss parent bank holds sufficient loss-absorbing capital and reduce potential taxpayer exposure.

## Estimated Impact on UBS

- UBS estimates the proposal could require around USD 23–24 billion of additional CET1 capital at the parent-bank level.
- The requirement mainly reflects the full deduction of foreign subsidiary investments from CET1.

## Political Debate (2025–2026)

- UBS and banking industry groups argue the proposal goes beyond Basel standards and may weaken the competitiveness of the Swiss financial center.
- The Federal Council argues stricter rules are necessary given UBS's systemic importance after the Credit Suisse takeover.

## Parliamentary Developments & Current Status

- In December 2025, a parliamentary committee recommended reviewing the proposal to ensure the requirements are "more proportionate."
- Possible adjustments discussed include modifying the capital treatment of foreign subsidiaries or allowing broader forms of regulatory capital (bonds instead of equity capital).
- Reform proposals remain under political debate in Parliament.
- Legislative process expected 2026–2027; implementation unlikely before ~2028.



# Senior Managers Regime & Remuneration Controls (Pillar 2 focus)

- Formal «senior managers regime» requiring clear assignment of individual responsibility.
- Introduction of clawback mechanisms: ability to cancel bonuses, claw back variable remuneration, withdraw FINMA recognitions.
- Caps on bonuses were considered but rejected; focus instead on effective clawbacks.



# Supervisory Treatment of Foreign Bank Subsidiaries – BCBS Guidance

- Solo (stand-alone) capital requirements
  - Regulators should ensure each subsidiary holds sufficient own capital independent of group capital.
  - The Committee does not specify a method – national authorities determine how to measure this (solo) adequacy.
- Group-level capital inclusion
  - When calculating group consolidated capital, include both:
    - The subsidiary's own capital (net of intra-group exposures), and
    - Ist required contribution to total group capital.
- No double-counting
  - Gains from intra-group transactions should be adjusted.
  - Subsidiary contributions are fully included – no deduction or add-backs back into CET1 at group level.



## Michelle Bowman, Speech: «Taking a Fresh Look at Supervision and Regulation» (June 6, 2025) and

- Objective: Holistic Review of Bank Capital Framework
  - Reassess whether capital, leverage ratios, stress testing, GSIB surcharges and Basel III standards are working in harmony.
- Fit to the Enhanced Supplementary Leverage Ratio (eSLR)
  - The eSLR has become overly binding for large banks, particularly affecting low-risk business like Treasury market intermediation.
  - Bowman noted it was based on outdated reserve forecasts, leading to unintended market distortions; She announced a forthcoming proposal to recalibrate or partially eliminate the eSLP as a «backstop».
  - Reconsider adoption of the Basel framework and reassess its Governance structure – too much European influence



## Michelle Bowman, Speech: «Taking a Fresh Look at Supervision and Regulation» (June 6, 2025)

- Stress-Testing and Transparency Reforms
  - Proposed phase-in extensions to reduce volatility in stress capital buffer requirements.
  - The Board plans broader changes later in the year aimed at supporting transparency, fairness, and predictability in stress-testing processes.
- Reassessing GSIB Surcharges & Basel III Calibrations
  - The July conference will re-evaluate Global Systemically Important Bank (GSIB) surcharge guidelines and Basel III risk-based reforms for large banks.
- Tailoring for Smaller & Community Banks
  - **Recent testimony in Congress (Feb 2026)**
  - Recognizing that capital frameworks affect banks of all sizes, Bowman emphasized reviewing community bank ratios, calibration of leverage ratios, and suitability of capital rules for mutual banks.



## Concluding points

- Regulatory Capital - Basel Capital Accord (Basel III/IV) evolving standards
- Liquidity requirements
- Capital regulation become stricter, less reliance on models
- Governance - conduct and operational risk (now more important)
- But we still have banking crises – *SVB Bank* (2023) and *Credit Suisse* (2023)