



cutting through complexity

**Basel III & TBTF:
Introduction
Risk Management Course
Centro di Studi Bancari
Vezia / TI
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1. International Financial Architecture and BCBS

2. Lessons learned from the crisis: more and better quality capital & liquidity

- Capital surcharges for UBS & CS: pioneer move of EBK & SNB in 2008

3. Basel 2.5 & III

1. Overview and schedule
2. Definition of capital
3. Capital buffers
4. Risk-weighted assets
 1. Basel 2.5 for market risks and securitisations
 2. Counterparty credit risk
5. Leverage Ratio
6. Liquidity (LCR & NSFR)

4. Impact on Swiss banks

5. Swiss implementation of the Basel framework

1. Banking Law, Capital Adequacy Ordinance, FINMA-Circulars
2. Differentiated capital buffers for non-G-SIBs (FINMA Circ. 2011/2)
3. Enhanced risk-weights for riskier residential mortgages
4. Countercyclical buffer

6. Measures against “too big to fail”

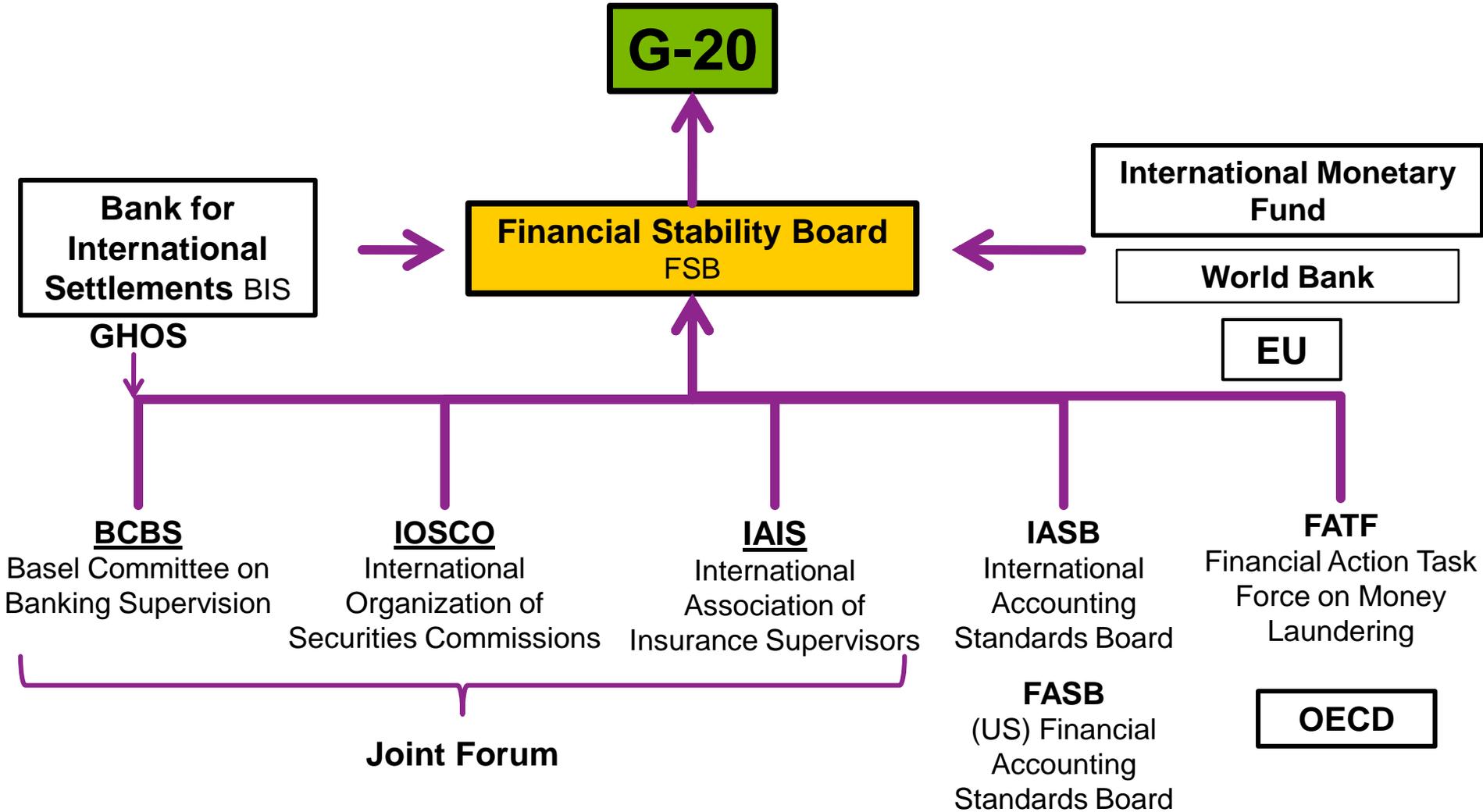
1. Swiss framework for Systemically Important Banks (SIBs)
 1. Switzerland: TBTF²
 2. Objectives
 3. Core elements
 4. Capital
 1. Risk weighted requirements
 2. Leverage Ratio
2. International framework for G-SIBs (BCBS, FSB)

7. Review of Basel III

1. Fundamental review of trading book capital requirements
2. BCBS Regulatory consistency assessment program
3. Align Leverage Ratio with risk-weighted capital ratios
4. Andrew Haldane: “The dog and the frisbee”

International Financial Architecture and Basel Committee

International Financial Architecture



The tower of Basel: BIS building



From 1975: G 10 plus

- Belgium
- Canada
- France
- Germany
- Italy
- Japan
- Luxemburg
- Netherlands
- Spain (2001)
- Sweden
- Switzerland
- United Kingdom
- United States
- Observers: EU Comm., FSI, IMF

From 2009: G 20 plus

- Argentina
- Australia
- Brazil
- China
- Hong Kong SAR
- India
- Indonesia
- Korea
- Mexico
- Russia
- Saudi Arabia
- Singapore
- South Africa
- Turkey

Established under auspices of **BIS** in **1975** after failure of Bank Herstatt

Mandate: primary **global standard-setter for the prudential regulation of banks** and **forum for cooperation on banking supervisory matters** → strengthen regulation, supervision and practices of banks worldwide → enhance **financial stability**

Legal status: No formal supranational authority; no legal force of decisions. BCBS relies on its **members' commitments**, in particular to

- **implement & apply BCBS standards** in their jurisdictions within prescribed timeframe
- undergo and participate in **BCBS reviews** to assess consistency & effectiveness of domestic rules and supervisory practices in relation to BCBS standards
- **promote interests of global financial stability** and **not solely national interests**, while participating in BCBS work and decision-making

Membership: Organisations with **direct banking supervisory authority** and **central banks**. Criterion for new members: **importance of their national banking sector** to international financial stability. → 27 countries, 42 organisations; CH: SNB & FINMA

Representation at Committee meetings: senior officials with authority to commit

Oversight: BCBS reports to a joint committee of central bank **Governors** and (non-central bank) **Heads of Supervision** from its member countries (**GHOS**) and seeks endorsement for its major-decisions and work program

BCBS decisions: taken by **consensus**

Chairman: Appointed by GHOS for term of three years, renewable once. → Stefan Ingves, Governor of Sveriges Riksbank

Secretariat: Provided by BIS, located in Basel. → Secretary General Wayne Byres, supported by a staff of ~17 professionals, mostly on temporary secondment from BCBS members

Frequency of meetings: four times per year, additional meeting decided by Chairman

Levels of standard-setting:

- **Standards:** BCBS expects **full implementation** by BCBS members and their **internationally active banks**. To be **incorporated into local legal frameworks** through each jurisdiction's rule making process; if **deviation** unavoidable, seek greatest possible **equivalence**. **Minimum requirements** → members may decide to go beyond them.
- **Guidelines:** considered **desirable**, supplement standards by additional implementing guidance
- **Sound practices:** Describe actual observed practices to promote common understanding and improving supervisory or banking practices. Members expected to compare / improve own pract.

Observers: EU Commission, ECB, EBA, IMF, FSI (Financial Stability Institute)

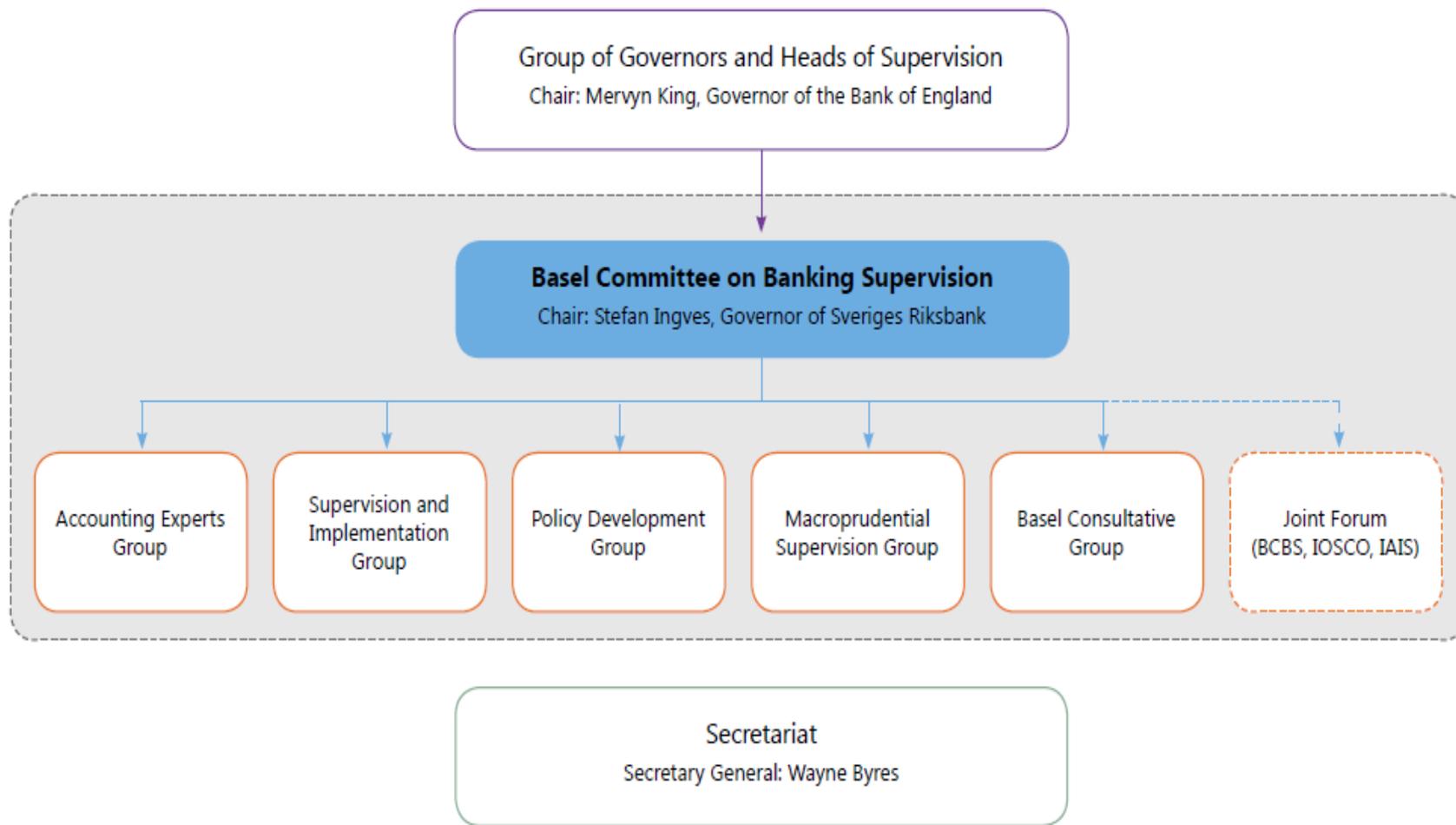
Outreach: Links with **supervisors not directly participating in the committee** with a view to strengthening prudential supervisory standards in all major markets, e.g.

- **Development and dissemination throughout the world of policy papers** on a wide range of supervisory matters;
- Pursuit of supervisory cooperation through **support for regional supervisory committees** and **sponsorship of a global biennial conference** (International Conference of Banking Supervisors, ICBS);
- Cooperation with the **FSI** in providing **supervisory training** both in Basel and at regional or local level. BCBS-FSI High Level Meetings for senior policymakers in central banks and supervisory authorities.

Cooperation with other international financial bodies: esp. FSB, Joint Forum

Public consultation process: Compulsory for BCBS standards. Interaction with **Institute of International Finance (IIF)** as main lobby-group of global banks (and insurers)

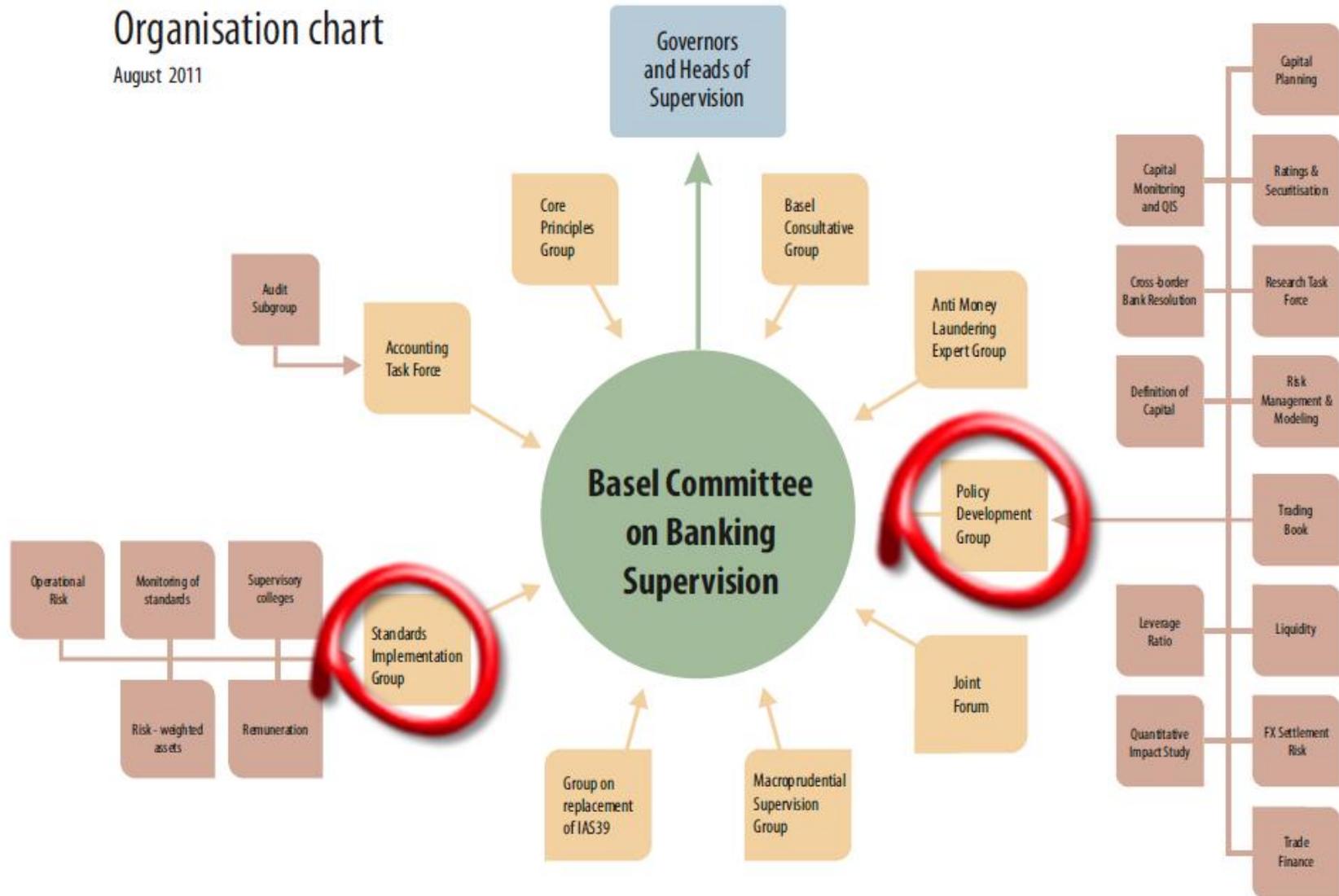
BCBS Charter: The BCBS established for the first time its own written charter in 2013, approved by GHOS on 6 January 2013.





Organisation chart

August 2011



Basel I (Capital Accord) 1988

“International Convergence of Capital Measurement and Capital Standards”

•2 Objectives:

- Strengthen **soundness and stability** of international banking system
- Diminish **competitive inequality** among international banks

•Captures **only credit risks**

•**Minimum standard:** national authorities free to adopt higher levels

•**Definition of capital**

- Core capital (**Tier 1**)
- Supplementary capital (**Tier 2**), max. 50% of Tier 1; subordinated debt max. 50% of Tier 2
- Deductions from capital

•**Standardised risk weights for on balance-sheet assets** (very simplified here)

- 0%: cash, claims on **OECD central governments & central banks** (Club approach)
- 20%: claims on **OECD incorporated banks** or other banks up to 1 year residual maturity
- 50%: residential mortgages
- 100%: claims on **private sector**, other assets like real estate, plants etc.

•**Credit conversion factors** for off-balance sheet items

•**Minimum Capital Ratio:** total capital **8%** of RWA (of which 4% Tier 1)

30 pages only!

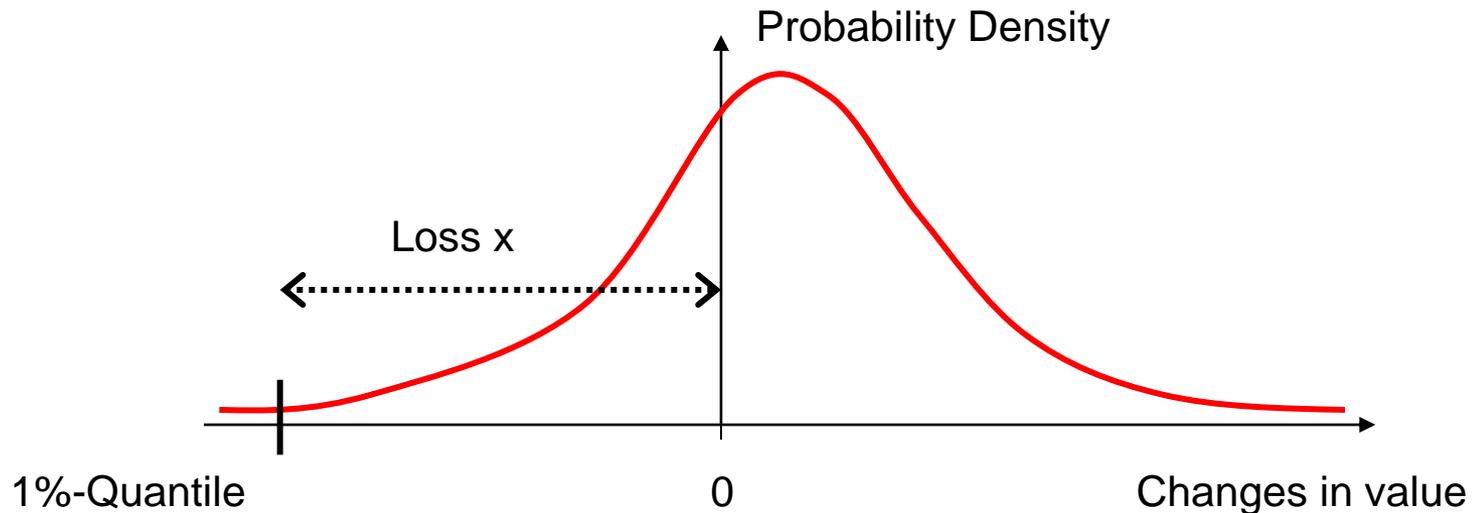
Market Risk Amendment 1996 – internal models approach

In 1996, BCBS published an amendment to the 1988 Basel Accord to provide an **explicit capital cushion** for the **price risks** to which banks are exposed, particularly those arising from their **trading** activities. This amendment was brought into effect in 1998.

- Allows banks to use **proprietary in-house models** for measuring market risks
- Banks using proprietary models must compute **VaR daily**, using **99th** percentile, one-tailed **confidence interval** with a **time horizon of 10 trading days** using a **historical observation period of at least one year**.
- The **capital charge** for a bank that uses a proprietary model will be the **higher of the previous day's VaR** and **3 times** (multiplication factor) **the average of the daily VaR** of the **preceding 60 business days**.
- Use of '**back testing**' (ex-post comparisons between model results and actual performance) to arrive at the '**plus factor**' that is **added to the multiplication factor of three**.
- **Standardized approach** using the 'building block' approach where general market risk and specific security risk are calculated separately and added up.
- Banks to **segregate trading book** and **mark to market** all portfolios/positions in the trading book.
- Applicable to both trading activities of **banks** and non-bank **securities firms** (agreed with IOSCO / US-SEC only in 2005)

Internal VaR Models Approach

VaR = Value at Risk is the predicted threshold amount, which should not be exceeded within a specific **time horizon** (holding period) at a given **confidence level** (probability) by (mark-to market) losses on a specific portfolio of financial assets (assuming no trading in the portfolio).



Confidence level = 99%, Time horizon = 10 days

Basel II 2004: More risk sensitive – internal approaches for credit risks (IRB) & operational risks (AMA)

- Significantly **more risk sensitive** capital requirements and takes into account **operational risk** of banks apart from credit and market risks. It also provides for risk treatment based on **securitization**.
- Great use of **assessment of risk provided by banks' internal systems** as inputs to capital calculations.
- Provides a range of **options** for determining the capital requirements for **credit risk** and **operational risk**
- **Promotes strong risk management practices** by providing **capital incentives** for banks having better risk management practices.
- Basel II does **not include liquidity risk, interest rate risk in banking book, strategic risk, and business risk**. These risks would fall under the **Supervisory Review Process**:
 - If capital held by a bank is considered not sufficient, supervisors can require the bank to **reduce its risk** or **increase its capital** or both.
 - **Interest rate risk in banking book**: Criteria for **outliers**. Where a bank under 200 basis points interest rate shock faces reduction in capital by 20% or more, such banks would be outliers.

•3 Pillars:

1. **Minimum Capital Requirement**
2. **Supervisory Review Process**
3. **Market Discipline through Disclosure**

Basel II – Pillar 1: Minimum Capital Requirements – Range of Options

•Capital for Credit Risk

- **Standardized** Approach
- **Foundation Internal Ratings** Based Approach (F-IRB)
- **Advanced Internal Ratings** Based Approach (A-IRB)

•Capital for Market Risk

- **De Minimis** Approach
- **Standardized** Approach (Maturity or Duration Method)
- **Internal Models** Method

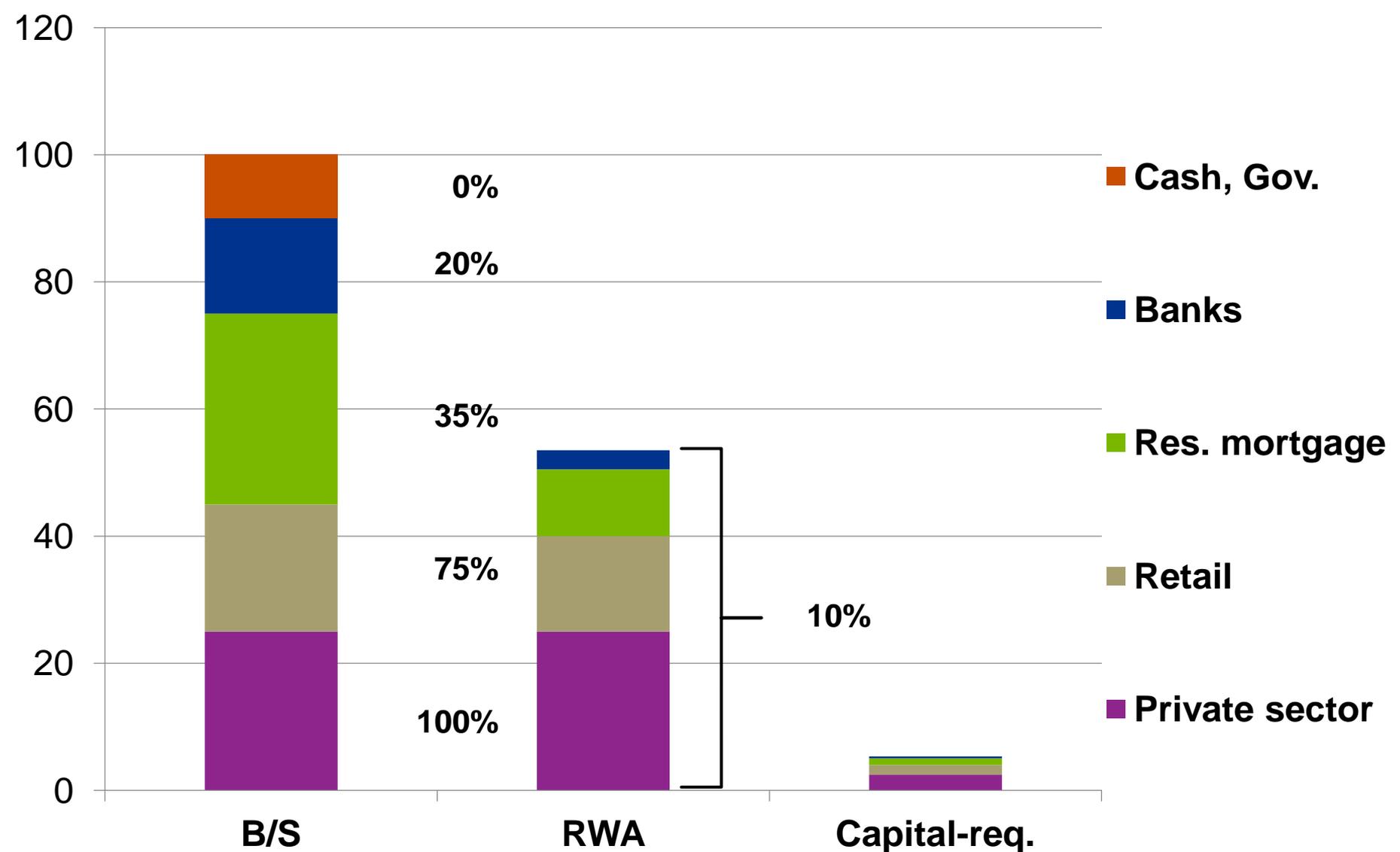
•Capital for Operational Risk

- **Basic Indicator** Approach
- **Standardized** Approach
- **Advanced Measurement** Approach

Transitional **floors** based on Basel I: Year 1: 90%; Year 2: 80%

**Lessons learned from the
crisis: more and better
quality capital & liquidity**

Risk-weighted assets as base for capital requirements – credit risk ex.



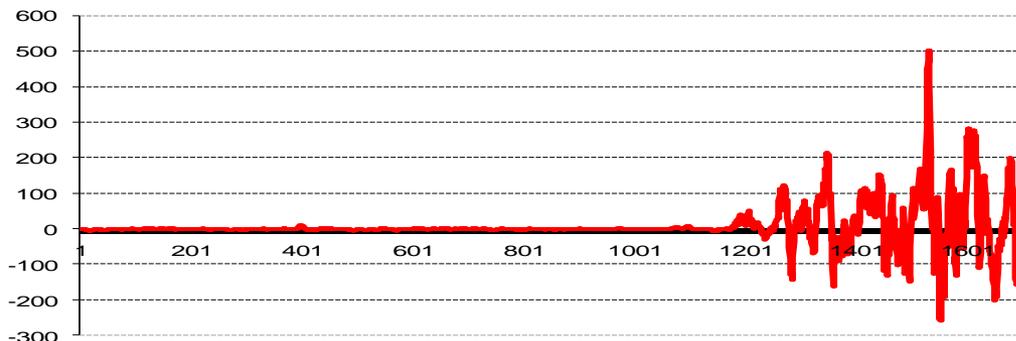
Weaknesses of Basel II / Lessons from the crisis: more and better quality of capital

•VaR-Market Risk Models adopted from Basel I (1996)

- VaR 99% (no tail-risks)
- Holding period of 10 days (wrongly assumes liquid markets)
- Multiplier ≥ 3 (3 x virtually zero will not result in much more capital)
- Trading book definition: intention sufficient, no active trade

•Massive expansion of **trading assets** via transfer of credit risks / structured loans with tiny capital→ excessive **Leverage**

•Extremely procyclical effect



AAA Home Equity Subprime

2003 – July 2009

10-day spread-returns (bp)

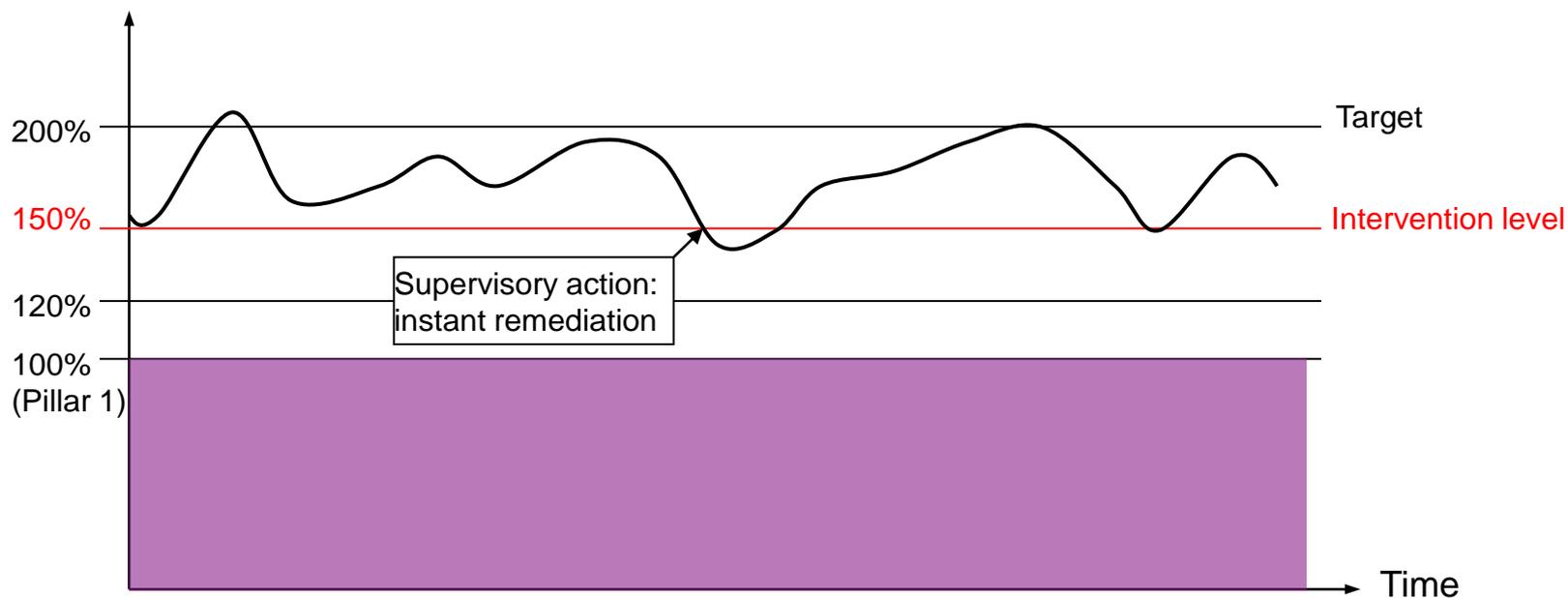
- **New approaches of Basel II (IRB & AMA) calibrated too low:**
 - (modest) **objective** of maintaining capital in banking system not achieved → preferential treatment of internal risk management approaches vs. standardised approaches for SM-banks
 - long-term **trend** towards lower capital requirements for „sophisticated“ global large banks
 - CH-Non-large Banks : Ø 100% above capital minimum
 - **No permanent floors for internal approaches → free fall**
- **Leverage Ratio rejected by BCBS in 2006**
- **Procyclical effect of banking system:** small capital in low-volatility boom periods / no reserves for loss absorption → reduction of problem assets exacerbates shock
- **Capital definition:** BCBS tolerated proliferation of „financial innovations“ (above all hybrid capital) → not fully loss-absorbent in going concern → quality neglected → harmonisation deferred post Basel II

- **Liquidity taken as a free good due to abundant supply before crisis**
- **Complex instruments** without regard of potential illiquidity
- Liquidity demand from **off-balance-sheet** vehicles neglected
- (over)Reliance on **interbank** market and **wholesale funding**
- **Stress scenarios**: w/o assumption of drying-out of core asset- and refinancing markets or systemic connections
- Massive liquidity injections from **central banks** required
- **No international standards for liquidity risks**
 - BCBS in 2000: only **qualitative** principles → poor implementation
 - Liquidity issues **deferred** post Basel II
 - Quantitative **national rules** very diverse
 - BCBS *Principles for Sound Liquidity Risk Management and Supervision*, September 2008, as first reaction to crisis

- **Objective**
 - Protection for Swiss economy & financial center against **systemic risks** of large banks, especially IB trading activities; increase **crisis resilience**
 - **Two complementary measures under Pillar 2**
 - **Risk-weighted target ratios**, based on **Basel II** (Tier 1+2)
 - **200%** (= 100% above Pillar 1) in good times (earnings)
 - **150%**: supervisory intervention level
 - **Capital conservation buffer** similar to Basel III
 - **Leverage Ratio** mainly based on **US-model**
 - Tier 1 capital / Balance sheet
 - Minimum ratio: 3% Group / 4% Parent Bank
 - 5% target ratio in good times
 - Exemption for Swiss loans, CHF reverse repos, cash
 - Adjustments for accounting differences IFRS / US-GAAP; deduction of goodwill & intangibles
- **Capital definition:** Basel II based on EU → **quality** neglected

RWA-Ratios over business cycles – capital conservation buffer

Risk-weighted targets



Risk Weigthed Assets vs. Leverage Ratio



- **Short memory** of bankers (& politicians) → set **ambitious targets in crisis**, but give enough **time for implementation**
- **Gradual implementation until 1 January 2013** based on earnings & de-leveraging → annual capital plan with FINMA
- Expiration of eligibility of subordinated debt 2020
- **Opposition of banks & politicians overcome under stress**
 - (Large) banking **lobby** still strong in summer 2008
 - Standard **objection**: international competitiveness
 - **Political concession** of EBK & SNB: exemption from Leverage Ratio for **domestic loans** → avoid SME issue
 - Failure of **Lehman Brothers** (15/09/08) turning point
- **15/10/08: agreement with CS on key parameters**
- **20/11/08: EBK-decrees for CS & UBS based on Law & Ordin.**
 - Adaptation to future **international standards** (BCBS) reserved

Basel 2.5 & III

Basel III overview

from Basel II ..



.. to Basel III

$$\text{Tier 1 Ratio} = \frac{\text{Tier 1 Capital}}{\text{RWA}} \geq 4\%$$

→ Loss absorbent →

→ Counterparty credit risks ↑
Market risks („Basel 2.5“)
Securitizations in banking book →

<strengthening>

$$\frac{\text{CET 1 + Add. Tier 1}}{\text{RWA}} \geq 6\%$$

↓ CET 1 + Add. Tier 1
↑ RWA

<new> Capital buffers

Conservation buffer
Countercyclical buffer

<new> Leverage ratio

$$\text{LR} = \frac{\text{Tier 1}}{\text{Total Assets}} \geq 3\%$$

<new> Minimum standards for liquidity risks

$$\text{LCR} = \frac{\text{Stock of high quality liquid assets}}{\text{Net stressed outflow}_{30\text{days}}} \geq 1$$

$$\text{NSFR}_{1\text{year}} = \frac{\text{Available amount stable funding}}{\text{Required amount stable funding}} > 1$$

Schedule Basel 2.5 & III: Compromise on hard targets vs. long transition

	2011	2012	2013	2014	2015	2016	2017	2018	2019
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Min.-Capital	Capital Ratio CET1								
	De-recognition of non loss-absorbing elements								

Buffers	Cap. conservation Buffer								
	Anticyclical Buffer								

Leverage Ratio		Observation Period	Publication			
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RWA	Market Risk Rules Basel 2.5	CH	(int.) Implementaton			
	Counterparty Credit Risk					
	Securitisations Banking Book					

Liquidity	LCR	Observation Period				
	NSFR					

Basel III: Calibration of the capital framework (all numbers in percent of RWA)

	Common Equity Tier 1	Tier 1 Capital	Total Capital
Minimum	4.5	6.0	8.0
Conservation buffer	2.5		
Minimum plus conservation buffer	7.0	8.5	10.5
Countercyclical buffer range*	0 – 2.5		

Higher Quality Definition of Capital - Common Equity Tier 1 (CET1) = fonds propres de base durs / hartes Kernkapital

- **Predominant** form of capital must be **fully loss-absorbing in going concern** → **common shares & open reserves / retained earnings = CET1.14 criteria**. **Hybrid capital** ≠ CET1
- **Deductions from CET1** (Basel II: 50/50 from Tier1/Tier2)
 - **Goodwill** & other intangible assets
 - Investments in **own shares** (treasury stock)
 - **Shortfall of provisions to expected losses** (IRB)
 - ❖ **Deferred Tax Assets**
 - ❖ Non-consolidated **participations in financial sector** > 10%
 - ❖ Mortgage Servicing Rights
 - **Defined benefit pension fund assets & liabilities**
- **Minority interest of third parties in fully consolidated subsidiaries**
 - Recognition at group level, minus surplus capital (e.g. CET1 > 7%)
- **Reg. filters: fair value gains / losses on own debt neutralised**

• **Non-CET1 & Tier 2 only recognised as reg. capital**, if issuing conditions or national laws provide, at the **option of relevant authorities**, that instruments be either **written off or converted into CET1** upon following **trigger decisions**

- Bank considered **not viable (point of non-viability = PONV)**, or
- **Public sector capital injection or equivalent support** (e.g. purchase of toxic assets / guarantee)
- ✓ **Capital investors & subordinated creditors must bear losses, before taxpayers are exposed**, if orderly wind-down not possible (esp. TBTF-banks)
- ✓ **Same effect as CoCos. PONV may override contractual trigger**
- ✓ **Applicable to internationally active banks (not only TBTF)**
- **From 2013; Phasing-out for old instruments without PONV-clause (10% per year); CH: from 1.1.2012**

Basel III: Combination of two capital buffers

1. **Capital conservation buffer**: building up capital in good times to absorb losses under stress; observe minimum requirements at all times
 - **Fixed buffer target: 2.5% CET1 of RWA**
 - **Restrictions on discretionary pay-out** (dividends, buy-backs, bonuses), increasing with growing distance from target ratio
 - ~ CH capital surcharges for UBS & CS (2008)
2. **Countercyclical buffer**: enhance shock-resilience of banks and limit expansion in periods of excessive credit growth
 - Based on **credit aggregates**, e.g. deviation from long-term trend of loan to GDP ratio. Scope: all domestic loans or focussed on specific asset classes, e.g. residential mortgages
 - **Applicable system-wide. Variable: 0 – 2.5% CET1. Normal = 0**
 - **National implementation; for internat. banks mix of geographic asset distribution → reciprocal application from 2016**

CH: Early implementation of CCB for real estate bubble

Market Risks

- Higher capital requirements for **trading** activities and reduction of **arbitrage** opportunities between trading / banking book via...
 - **Stressed VaR**: based on 1 year stress period $x \geq 3$
 - **Incremental Risk Charge**: default- & migration risks of debt instr.
 - **Securitisations**: similar to tightened banking book rules
 - **Comprehensive Risk Measure** for correlation trading portfolio
 - More conservative rules for **equities**

Securitisations: ↑ Re-securitisations / liquidity commitments for SPVs

B 2.5 in force: BCBS 31.12.11 / CH 1.1.11

Fundamental review of trading book framework → Consultative Document May 2012

Basel III: Counterparty credit risk from OTC derivatives, securities financing

- **Credit Valuation Adjustment:** capital charge for potential mark-to-market losses associated with deterioration of creditworthiness of counterparties from derivatives and sec. financing (repos, sec. lending)
- **Stressed inputs for capitalisation of counterparty credit risk**
- **Higher IRB-RWs for exposures to large regulated financial institutions (\geq USD 100 bn) and all unregulated FI** → asset value correlation multiplier of 1.25 for systemic risk of *interconnectedness*
- **Promotion of clearing via central counterparties (CCPs)**
 - **Collateral & MTM** exposures to CCPs → 2% RWA
 - **Default fund** exposures to CCPs: risk-sensitive capital charge
 - **Compliance of CCPs** with IOSCO-CPSS standards for FMI
- **Collateral mgmt. / initial margins: longer margining periods**
- **Risk management standards for:**
 - wrong-way risk (exposure increases when credit quality of CP deteriorates)
 - back-testing

• **Objective**: supplement risk-based capital requirements by a simple, transparent, independent measure of risk

- **Constrain leverage** in banking sector → mitigate destabilising **deleveraging** processes which can damage financial system and economy

- Credible **back-stop** against **model risk** and **measurement error**

• **Minimum LR**: Tier 1 (new def.) / Total Exposure = **3%**, test phase

• **Total Exposure**: balance & off-balance items, generally based on accounting measure; adjust for differences in accounting standards

- Securities Financing Transactions: acc. & Basel II netting-rules
- Derivatives: current exp. & add-on for potential future exp. & Basel II netting-rules
- Off.-B/S: 100% credit conversion factor; 10%, if unconditionally cancellable at any time by bank w/o prior notice (US credit cards)
- **No Swiss exceptions** for domestic loans or liquidity (≠ 2008 CH-rules)

• **Transition regime**: **observation** from 2011 / **disclosure** from 2015 / review & decision on migration to Pillar1 and **final rules** in 2017 → in force 2018

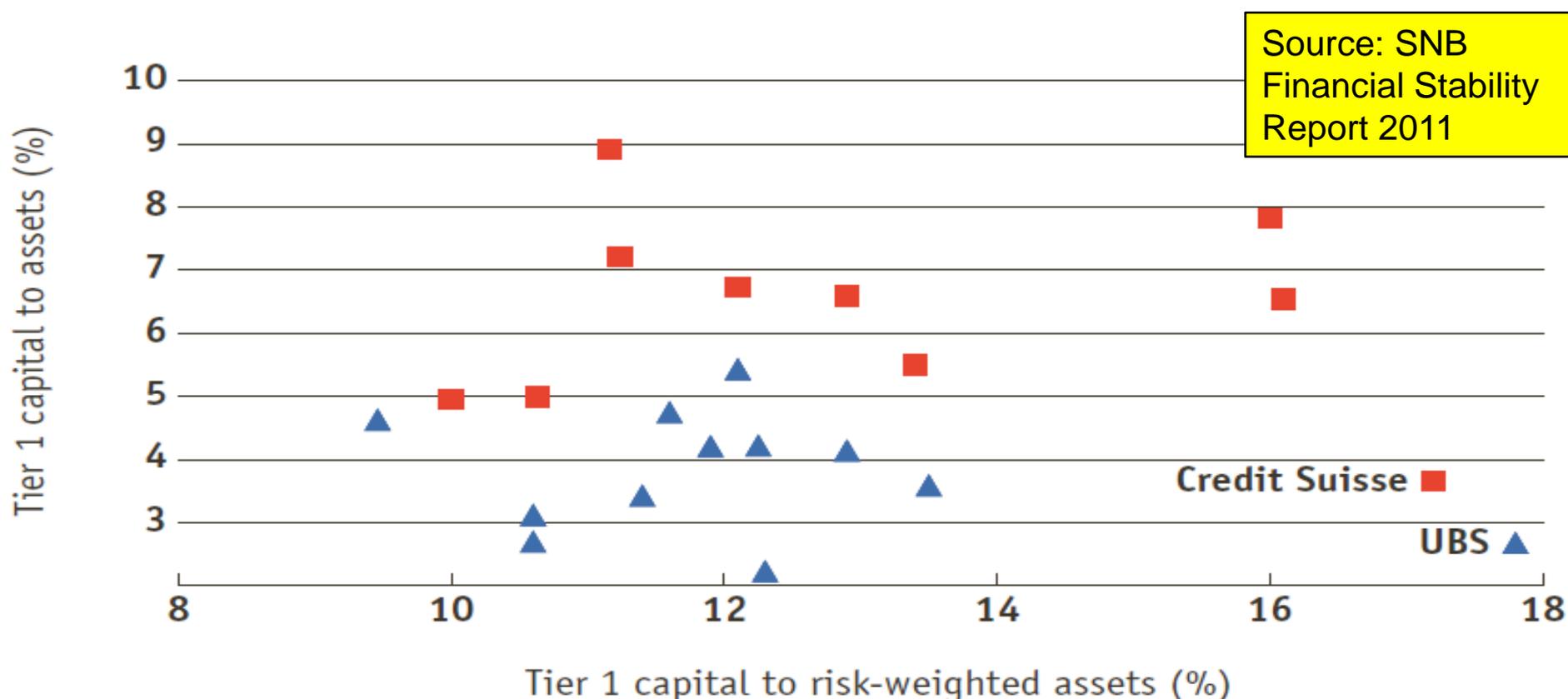
Leverage Ratio vs. RWA-Ratio Basel II

International comparison of capital ratios

Chart 16

Major internationally active banks; by accounting standards

▲ IFRS ■ US GAAP



Basel III: 2 global liquidity minimum standards

1. Liquidity Coverage Ratio LCR

Promote **short-term** resilience of liquidity risk profile through sufficient high quality resources to survive an **acute stress scenario** lasting for **one month**

$$\frac{\text{(Stock of high quality liquid assets)}}{\text{(Net cash outflows over a 30-day time period)}} \geq 100\%$$

Comparable with **CH** G-SIBs regime of 2010; Basel III: milder scenario, narrower definition of liquid assets

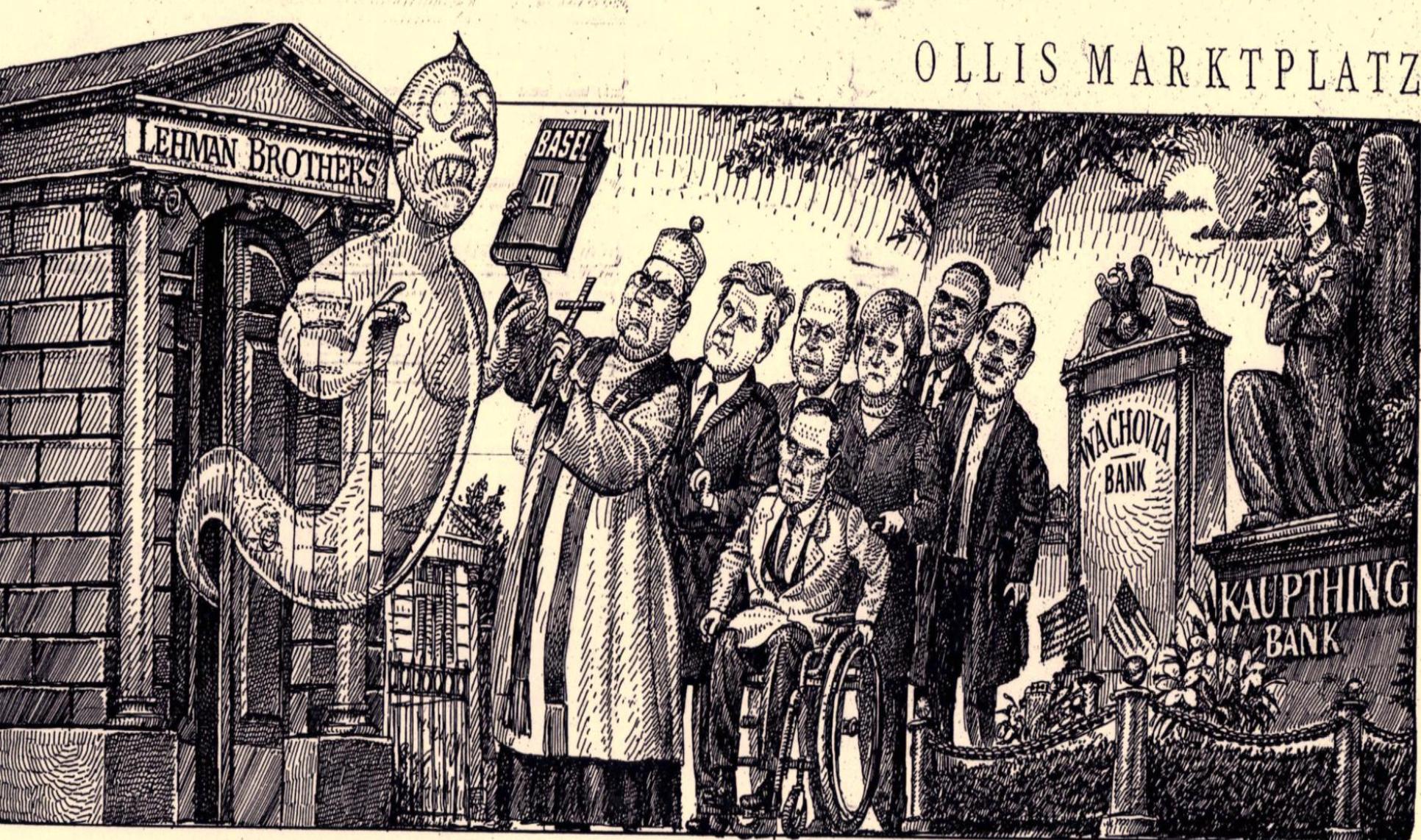
2. Net Stable Funding Ratio NSFR

Promote **longer-term** resilience through more stable sources of funding on an ongoing structural basis (sustainable structure of A/L) over **one year** horizon

$$\frac{\text{Available amount of stable funding}}{\text{Required amount of stable funding}} > 100\%$$

Transition regime: Observation LCR until 2014, NSFR until 2017, both with **review** clause → 7 Jan. 2013 BCBS decision on LCR

Basel III: the new bible



Impact of Basel 2.5 & III on Swiss banks

•Definition of capital

- G-SIBs: massively affected (\neq hybrids; deductions from CET1)
- Others: almost only hold CET1; add PONV-clause for sub. debt issued from 2013

•RWA-requirements

- G-SIBs: major increase for Investment Bank
- Others: marginal increase for trading / OTC derivatives \rightarrow large existing capital buffers (cf. FINMA circ. 2011/2 for non-G-SIBs)
- Abolition of Swiss finish reduces average RWAs (unrelated with Basel III)

•Leverage Ratio

- Exclusive, serious problem for G-SIBs; others comply easily

•Liquidity

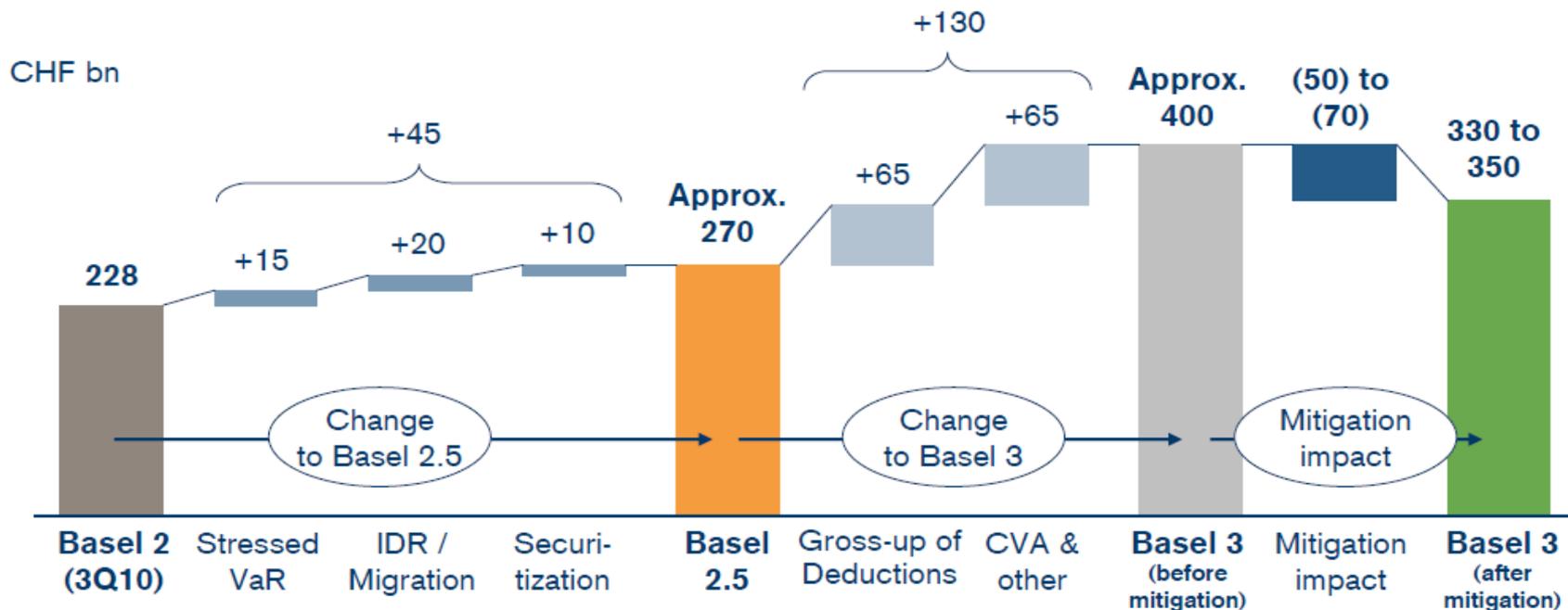
- G-SIBs: already comply with LCR and NSFR
- Others: major implementation effort; Reporting from 2012, in force 2015

•Implementation in Switzerland

- Revision of Capital Adequacy Ordinance (CAO) of 1 June 2012, in force 1 Jan. 2013 (basis for anti-cyclical buffer & higher RWAs for riskier mortgages from 1 July 2012)
- Abolition of Swiss Finish (SA-CH / Multipliers in SA-BIS) with transition until end 2018; change only as a “package” (no cherry-picking)
- FINMA-Circulars

Basel II → Basel 2.5 → Basel III: RWA-projections in Q310 Credit Suisse

Risk-weighted assets projection under Basel rule changes

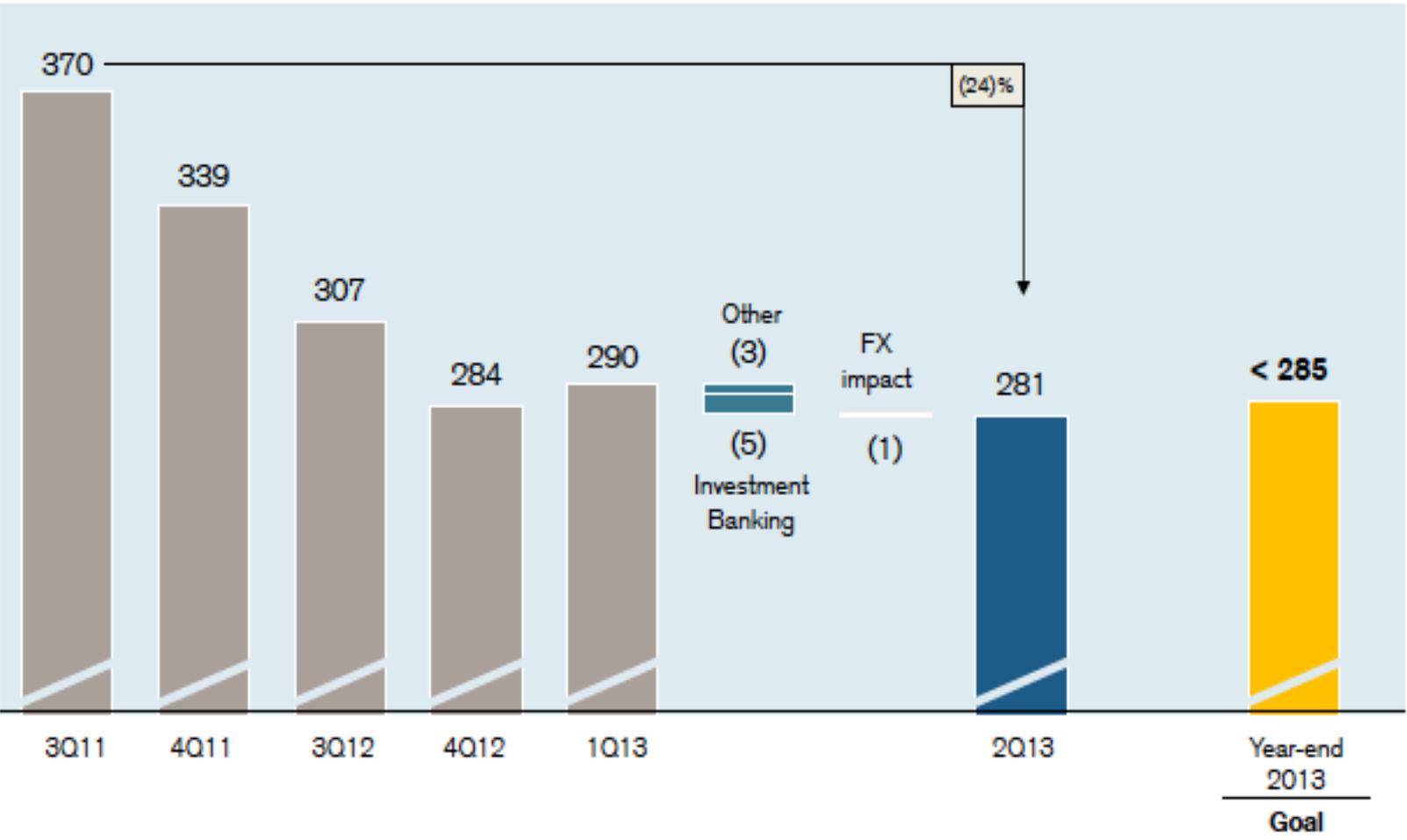


Businesses primarily affected	Emerging markets	Emerging markets	Credit	Structured products	Rates
	▪ Credit	▪ Credit	▪ Structured products	▪ "Exit businesses"	▪ Foreign exchange
	▪ Equity derivatives				▪ Equities

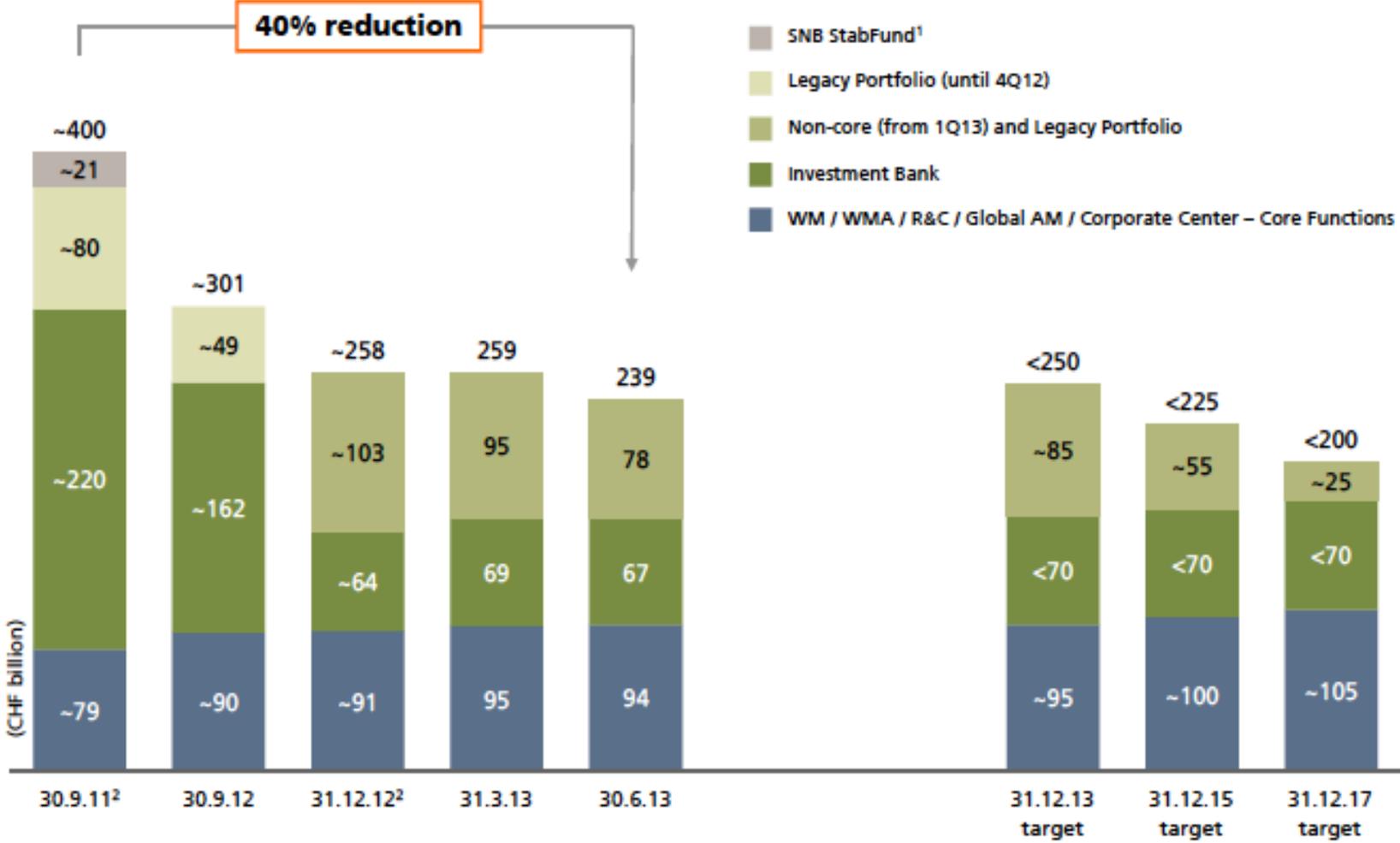
Note: Estimates based on current positions; certain Basel 3 methodology changes are still subject to validation

Exceeded year-end 2013 RWA reduction target

Group Basel 3 "look-through" risk-weighted assets (RWA) in CHF bn



Progress on RWA reduction (fully applied)



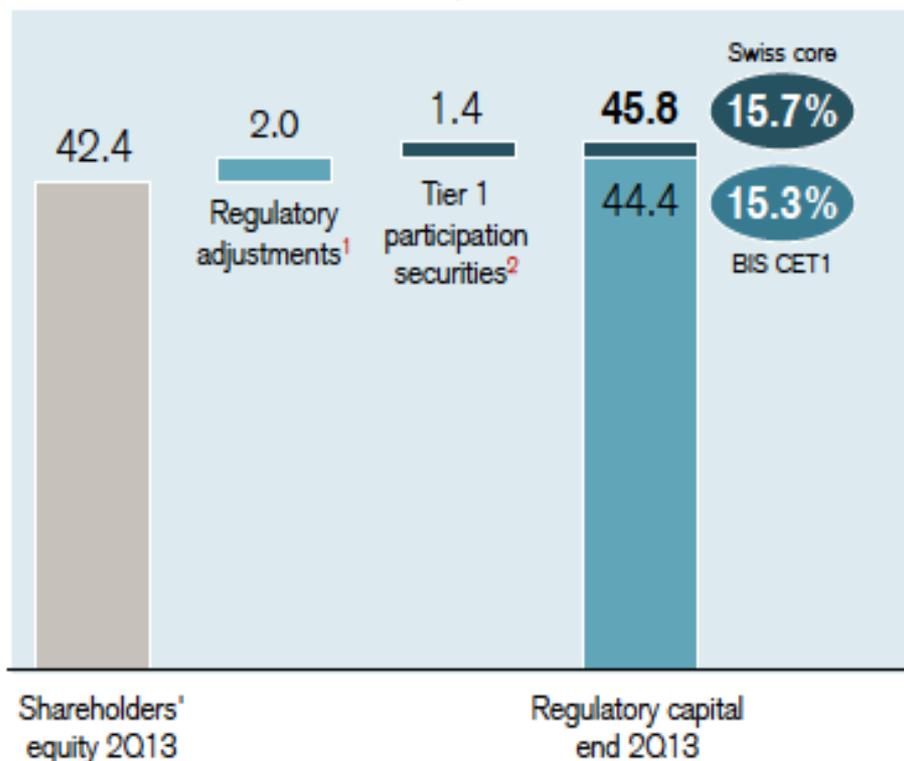
We continue to target future RWA for the Group of <CHF 200 billion



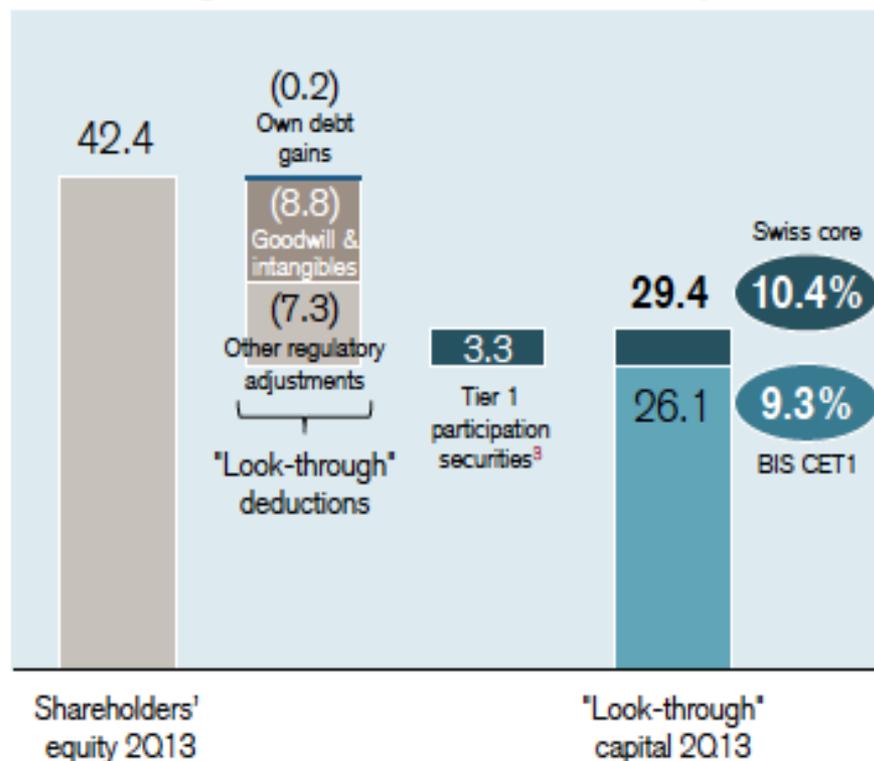
Refer to slide 36 for details about adjusted numbers, Basel III numbers and FX rates in this presentation
 1 RWA associated with UBS's option to purchase the SNB StabFund's equity (treated as a participation with full deduction from CET1 capital starting 2Q12)
 2 Legacy Portfolio included on a pro-forma basis from 30.9.11; Non-core and Legacy Portfolio included on a pro-forma basis from 31.12.12

Strong 2Q13 Basel 3 capital ratios

Swiss core and BIS CET1 capital in CHF bn



"Look-through" Swiss core and BIS CET1 capital in CHF bn



Basel 3 risk-weighted assets in CHF bn

290

281

Rounding differences may occur.

¹ Includes an adjustment of CHF 2.6 bn for the accounting treatment of pension plans pursuant to phase-out requirements and other regulatory adjustments and regulatory adjustments of CHF (0.6) bn not subject to phase-in, including the cumulative dividend accrual. ² Consists of tier 1 participation securities of CHF 2.5 bn, additional tier 1 deductions for which there is not enough tier 1 capital available and therefore is deducted from Swiss Core Capital, and other Swiss regulatory adjustments. ³ Consists of existing tier 1 participation securities of CHF 2.5 bn and other Swiss regulatory adjustments.

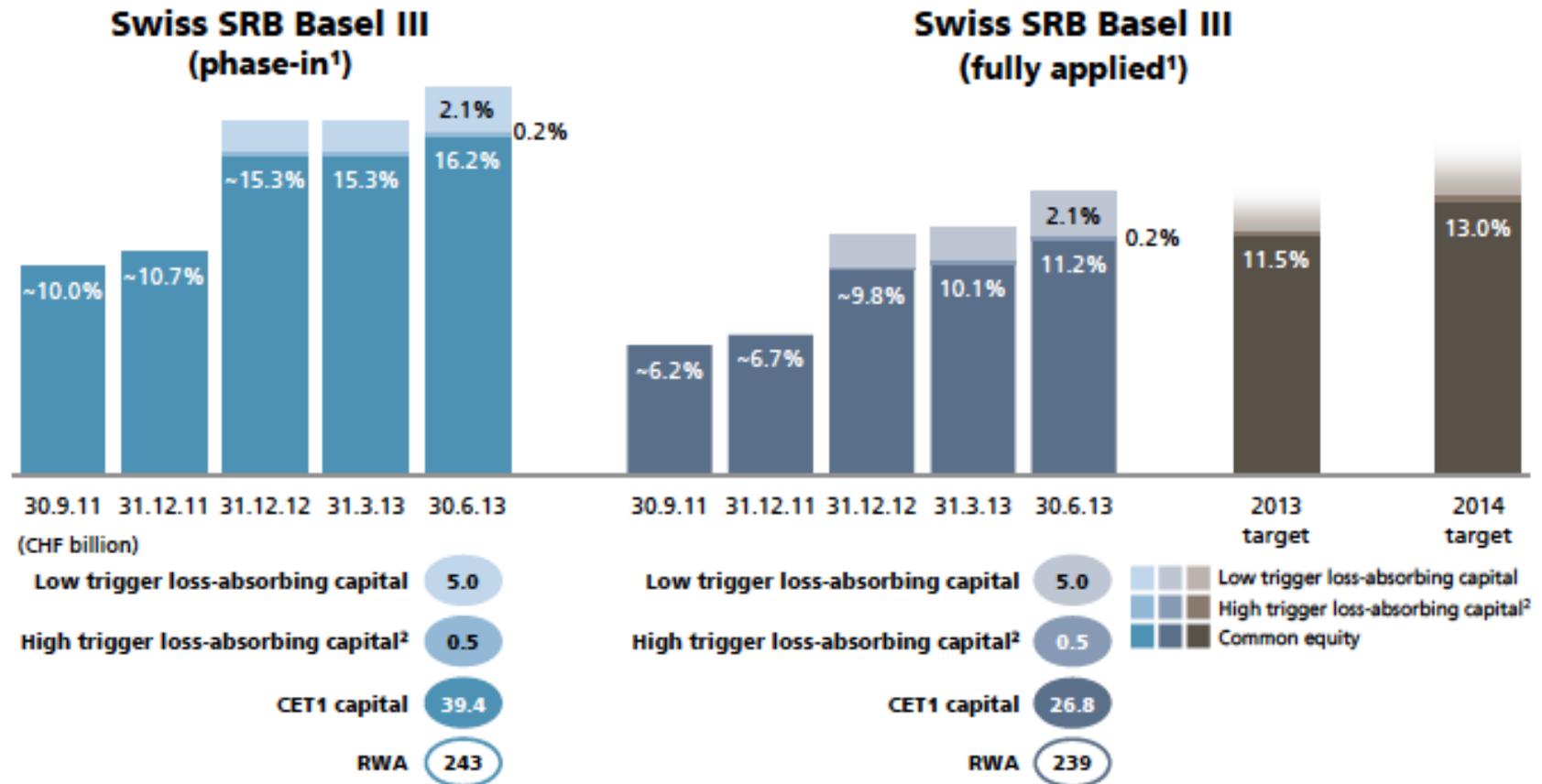


July 25, 2013

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Basel III capital

Basel III fully applied CET1 ratio improved by 110 bps



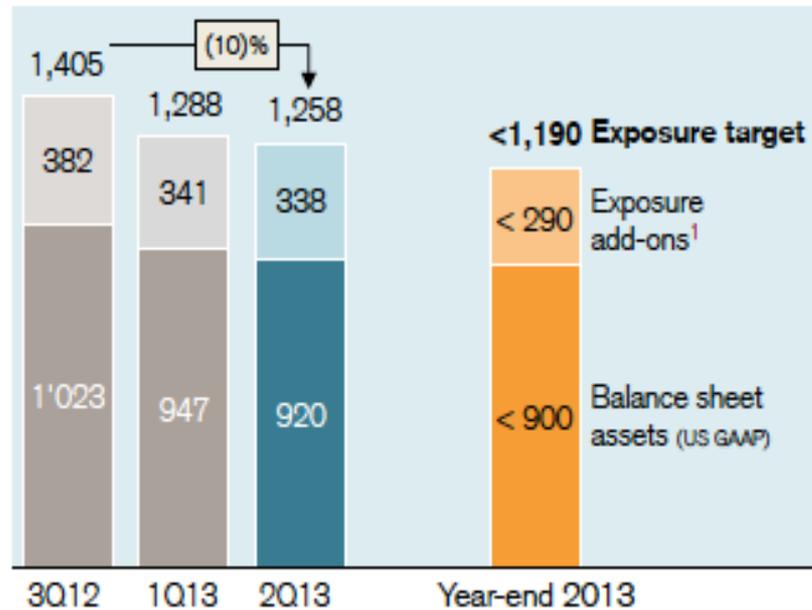
We are on track to achieve our 13% fully applied CET1 target in 2014



Refer to slide 36 for details about adjusted numbers, Basel III numbers and FX rates in this presentation
 1 BIS Basel III CET1 ratios as of 30.6.13: phase-in (16.2%), fully applied (11.2%). The BIS Basel III rules are in line with the Swiss SRB Basel III rules (applicable to systemically relevant banks in Switzerland), except that under the BIS Basel III rules our high trigger loss-absorbing capital which was granted as part of UBS's deferred compensation programs is amortized and that Tier 2 phase-out capital is recognized; 2 Debt issued as part of UBS's 2012 deferred compensation programs. We could build ~100 bps of high trigger loss-absorbing capital from these deferred compensation programs over the next 5 years; CHF 0.5 billion are eligible under Swiss SRB rules (systemically relevant banks in Switzerland) while under BIS rules the amount is amortized and CHF 0.4 billion are eligible on 30.6.13

Swiss leverage exposure reduced by CHF 147 bn since 3Q12

Swiss leverage exposure end of period in CHF bn



- Well advanced leverage reduction program with **exposure reduced by CHF 147 bn** since 3Q12
- **Phase-in leverage ratio of 3.9%** at end 2Q13 **projected to be at ~4.5%** by end 2013
- **"Look-through" leverage ratio projected to be at ~3.2%** by end 2013
- The future issuance of low-trigger contingent capital, in line with the 1.1% requirement, will enable **Credit Suisse to exceed the Swiss leverage requirement of 4.2% ahead of the 2019 deadline**

Reported 2Q13 Swiss leverage ratio

- Including:
- CHF 4.2 bn of issued high-trigger BCNs
 - CHF 2.5 bn of issued Tier 1 participation securities (Claudius)
- 3.9%** phase-in

Projected year-end 2013 leverage ratio

Assumptions:

- CHF 1,224 bn for Swiss leverage exposure, based on simple average of end 2Q13 amount and year-end 2013 target
 - Consensus retained earnings for 2H13²
 - Agreed exchange in October 2013 of CHF 3.8 bn Tier 1 Capital Notes into additional high-trigger BCNs
- ~3.2%** "look-through" **~4.5%** phase-in

Note: this projection assumes no redemption of Tier 1 participation securities or issuance of low-trigger contingent capital

¹ Off-balance sheet exposures and regulatory adjustments. Illustrative purposes. Actual amounts may differ significantly.

² Based on net income and dividend per share estimates as per Bloomberg consensus as of July 23, 2013, which is not endorsed or verified and is used solely for illustrative purposes.

Swiss leverage calculation and year-end 2013 projection

in CHF bn	Phase-in view			"Look-through" view		
	2Q13	End 2013 projections	as % of CHF 1,224 bn exposure ¹	2Q13	End 2013 projections	as % of CHF 1,224 bn exposure ¹
Common equity tier 1 (CET1)	44.4 +1.2 ³	45.6	3.7%	26.1 +1.2 ³	27.3	2.2%
Swiss regulatory adjustments ²	(1.1)	(1.1)	(0.1)%	0.8	0.8	0.1%
Tier 1 participation securities (Claudius)	2.5	2.5	0.2%	2.5	2.5	0.2%
Swiss Core Capital	45.8	47.0	3.8%	29.4	30.6	2.5%
High-trigger Buffer Capital Notes	4.2 +3.8 ⁴	8.0	0.7%	4.2 +3.8 ⁴	8.0	0.7%
Low-trigger contingent capital	–	–	–	–	–	–
Swiss Total Capital	50.0	55.0	~4.5%	33.6	38.6	~3.2%

The future issuance of low-trigger contingent capital, in line with the 1.1% requirement, will enable Credit Suisse to exceed the Swiss leverage requirement of 4.2% ahead of the 2019 deadline

Rounding differences may occur.

¹ Simple average of Swiss leverage exposure of CHF 1,258 bn at end 2013 and target of CHF 1,190 bn at year-end 2013.

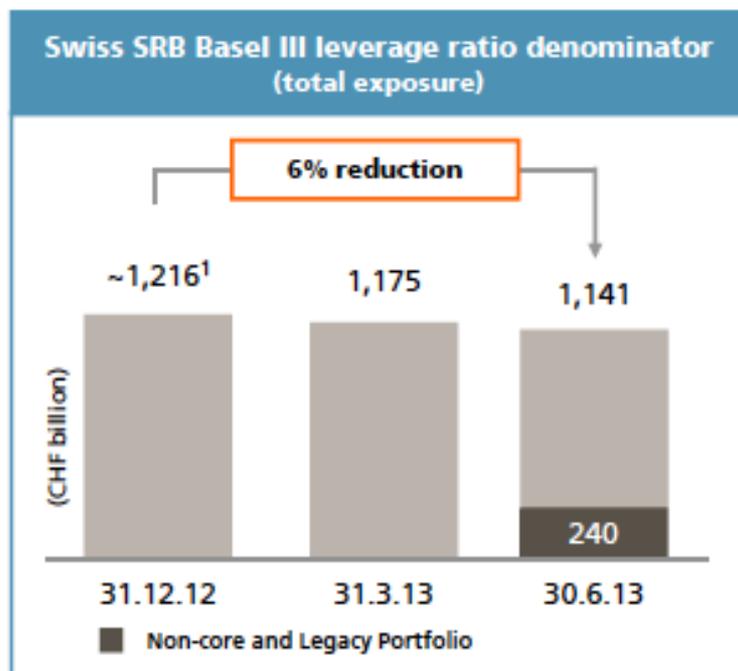
² Consists of additional tier 1 deductions for which there is not enough tier 1 capital available and is therefore deducted from Swiss Core Capital and other Swiss regulatory adjustments.

³ Based on net income and dividend per share estimates per Bloomberg consensus as of July 23, 2013, which is not endorsed or verified and is used solely for illustrative purposes. Actual amounts may differ significantly.

⁴ Assumes exchange in October 2013 of remaining CHF 3.8 bn hybrid tier 1 notes into high-trigger BCNs, subject to FINMA approval.

Leverage ratio

Swiss SRB Basel III leverage ratio (phase-in) 3.9% at 30.6.13



Cumulative impact on leverage ratio over time (illustrative example, bps)

Leverage ratio numerator	
Exercise of the SNB StabFund option	~20-25 ²
Loss-absorbing capital (high-trigger)	~10-15 ³
Loss-absorbing capital (low-trigger)	~30-35 ⁴
Leverage ratio denominator ⁵	
Non-core and Legacy Portfolio run-down	~50-95
Total leverage ratio uplift	110-170 bps

- Fully applied Swiss SRB Basel III leverage ratio will become effective in 2019; on this basis our leverage ratio was 2.9% at 30.6.13
- Illustrative example shows an uplift over time of up to 170 bps helping us to exceed the estimated minimum requirement of 4.2% before 1.1.19⁶

Refer to slide 36 for details about adjusted numbers, Basel III numbers and FX rates in this presentation

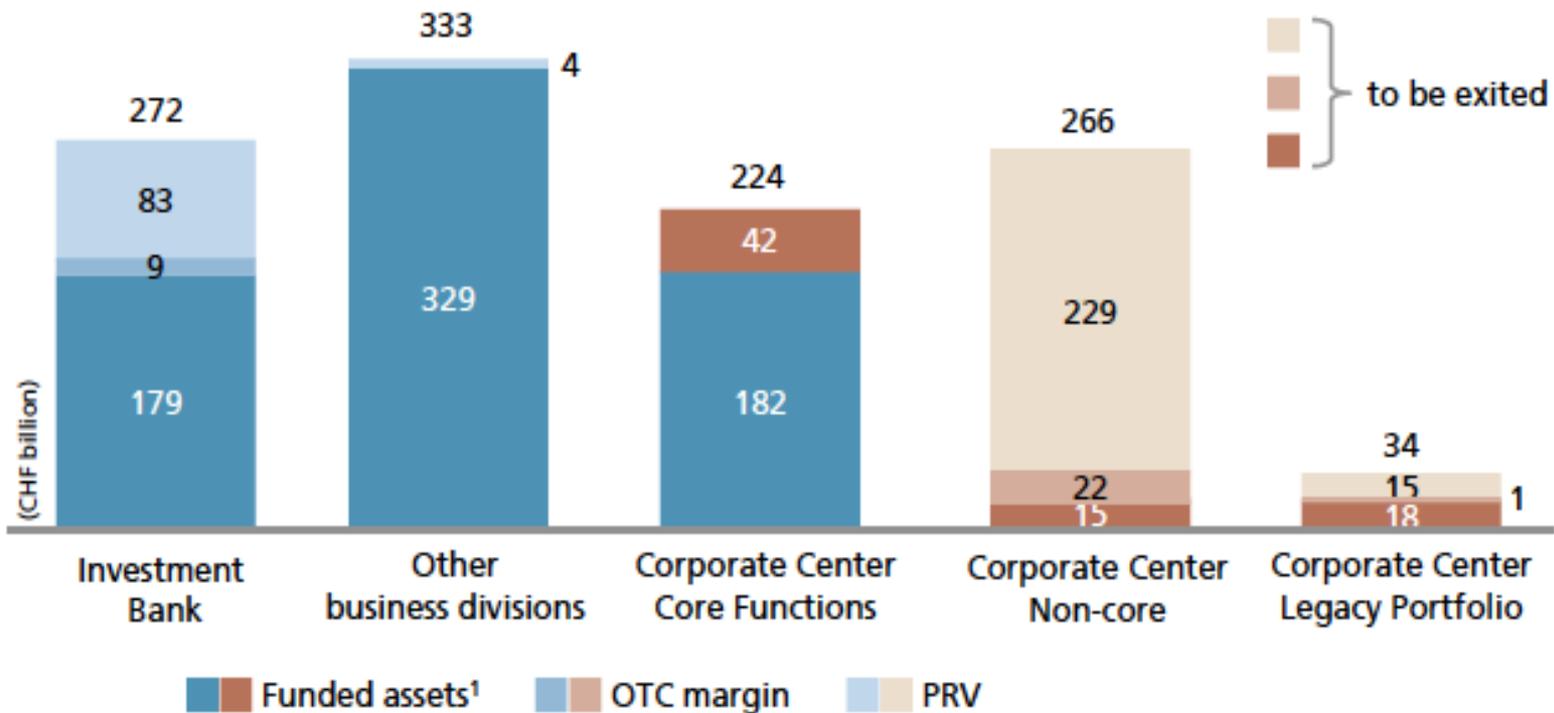
1 Pro-forma number; 2 The value of UBS's option to purchase the equity of the SNB StabFund was CHF 2.5 billion at 30.6.13 and fully deducted from regulatory capital; 3 We could build up ~100 bps of high trigger loss-absorbing capital from deferred compensation programs over the next 5 years based on our RWA target of <CHF 200 billion; 4 CHF 9 billion of low-trigger loss-absorbing capital based on 17.5% fully applied total capital requirement expectation; 5 Any additional measures to reduce leverage ratio denominator are not included; 6 Minimum leverage ratio is based on 17.5% fully applied total capital requirement expectation



Balance sheet

Total assets CHF 1,129 billion or CHF 765 billion excluding PRV and OTC margins

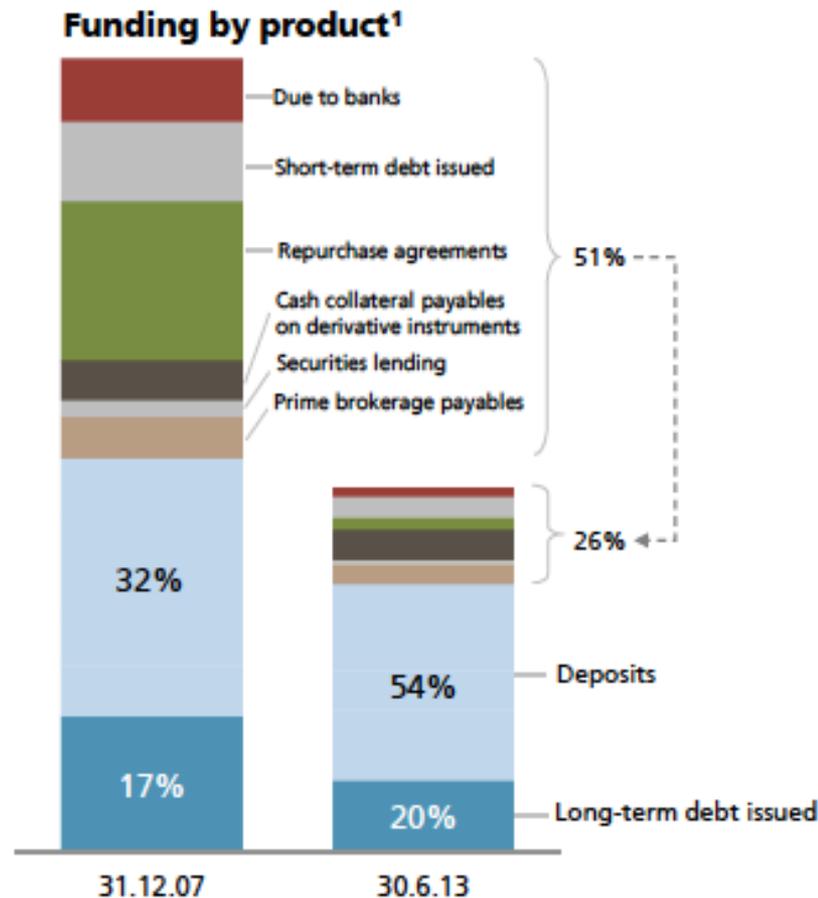
30.6.13



¹ Funded assets defined as total IFRS balance sheet assets less positive replacement values (PRV) and collateral delivered against over-the-counter (OTC) derivatives

Our balance sheet, funding and liquidity positions are strong

Our balance sheet structure has many characteristics of a AA-rated bank



- **Strong and significantly reduced balance sheet**

- Funded assets down >50% from peak in 2007
- Phase-in Swiss SRB Basel III leverage ratio 3.9%²

- **Strong funding profile**

- Well diversified funding sources
- High proportion of stable funding sources with deposits >50% and long-term debt 20%
- Limited use of short-term wholesale funding
- 109% Basel III NSFR³

- **Strong liquidity position**

- 114% Basel III LCR³



Refer to slide 36 for details about adjusted numbers, Basel III numbers and FX rates in this presentation

¹ As a percentage of total funding sources defined as: repurchase agreements, cash collateral on securities lent, due to banks, short-term debt issued, due to customers, long-term debt (including financial liabilities at fair value), cash collateral payables on derivative transactions and prime brokerage payables.

CHF 1,527 billion on 31.12.07 and CHF 702 billion on 30.6.13; ² As of 30.6.13. Refer to the 2Q13 financial report for more information about UBS's Swiss SRB Basel III leverage ratio; ³ As of 30.6.13. Refer to the 2Q13 financial report for details about the calculation of UBS's Basel III LCR and NSFR

33

Strong funding and liquidity

Assets and liabilities by category, end 2Q13 in CHF bn

920			920	
Reverse repo	102	Match funded	Repo	121
Encumbered trading assets	68		Short positions	49
Funding-neutral assets ¹	155		Funding-neutral liabilities ¹	155
		325 ↑		
Cash & due from banks	58	595 ↓	Other short-term liab. ²	33
Unencumbered liquid assets ³	156		Due to banks	65
			Short-term borrowings	21
Loans ⁴	241	122% coverage	Deposits ⁵	293
			Long-term debt	134
Other longer-maturity assets	140		Total equity	49
Assets			Equity & Liabilities	

Well prepared for Basel 3 liquidity requirements

- Basel 3 Net Stable Funding Ratio⁶ (1-year) in excess of 100%
- Short-term (30 days) liquidity under Swiss regulation in excess of requirement

1 Primarily includes brokerage receivables/payables, positive/negative replacement values and cash collateral.

2 Primarily includes excess of funding neutral liabilities (brokerage payables) over corresponding assets.

3 Primarily includes unencumbered trading assets, unencumbered investment securities and excess reverse repurchase agreements, after haircuts.

4 Excludes loans with banks.

5 Excludes due to banks and certificates of deposit.

6 Estimate under current FINMA framework. Basel 3 liquidity rules and FINMA framework are not finalized; amounts and statements and ratios shown here are based on interpretation of current proposals.

Basel III Liquidity Coverage Ratio & Net Stable Funding Ratio

UBS's Basel III Liquidity Coverage Ratio and Net Stable Funding Ratio in excess of 100%¹

Liquidity Coverage Ratio (LCR)	
(CHF billion)	31.12.12
Cash outflows	260
Cash inflows	124
} under 30-day stress scenario ²	
Net cash outflows	136
Liquidity asset buffer ³	153
Regulatory LCR (= 153 / 136)	113%
Additional contingent funding sources ⁴	64
Management LCR (= (153 + 64) / 136)	159%

Net Stable Funding Ratio (NSFR)	
(CHF billion)	31.12.12
Available stable funding ⁵	362
Required stable funding ⁶	336
NSFR (= 362 / 336)	108%

Refer to slide 61 for details about adjusted numbers, IAS 19R, pro-forma Basel III estimates and FX rates in this presentation

1 Pro-forma: Based on current regulatory guidance; 100% = future requirement under the Basel III Liquidity Framework

2 Out- and in-flows up to 30 days under severe general market and firm-specific stress

3 Assets eligible in Basel III LCR framework including dedicated group liquidity reserve, excess cash at major central banks, unencumbered collateral pledged to central banks

4 Additional contingent funding sources including dedicated local liquidity reserves and additional unutilized borrowing capacity

5 Consists mainly of client deposits from our wealth management businesses, long term debt issued and capital

6 Residential mortgages and other loans are the main consumers of stable funding



Swiss implementation of the Basel framework

Banking Law Art. 4: Capital and Liquidity

¹ Banks must maintain individually and on a consolidated basis appropriate capital adequacy and liquidity.

² The Federal Council determines the elements of the capital adequacy and liquidity. It establishes the minimum requirements in accordance with the business practices and the risks. FINMA is authorized to issue implementing provisions.

³ In special cases FINMA is authorized to permit less stringent application of the guidelines or to seek enforcement of more stringent provisions.

⁴ The qualified participation of a bank in a company outside of the financial or insurance industries may not exceed 15 percent of its eligible capital. Such participation may not amount to more than 60 percent of the eligible capital. The Federal Council defines the exceptions.

Capital Adequacy Ordinance, CAO 952.03

Ordinance concerning Capital Adequacy and Risk Diversification for Banks and Securities Dealers (Capital Adequacy Ordinance, CAO)
of 1 June 2012 (status as at 1 January 2013)

FINMA Circulars for the implementation of Basel III and TBTF, of 18 July 2012

- 2008/19 Credit Risks – Banks
- 2008/20 Market Risk – Banks
- 2008/21 Operational Risks – Banks
- 2008/22 Capital Adequacy Disclosure – Banks
- 2008/23 Risk Diversification – Banks
- 2011/2 Capital Buffer and Capital Planning – Banks
- 2013/1 Eligible Capital – Banks

CAO Art. 45 Additional Capital – Pillar 2: differentiated buffers based on supervisory categories

1 FINMA requires banks to hold **additional capital**. FINMA may exclude certain categories of banks from this obligation.

2 This additional capital should specifically cover the **risks that are not covered or not sufficiently covered by the minimum required capital** if applying a risk-oriented approach. Together with the capital buffer, the additional capital is meant to **ensure compliance with minimum capital requirements** as per art. 43 even in **unfavorable conditions**.

3 If a bank does not have additional capital as per para. 1, FINMA may stipulate **special measures to monitor and supervise** the capital adequacy and risk situation.

4 Under special circumstances, FINMA may on an **individual basis demand further capital**, namely if the minimum required capital, the capital buffer and the additional capital do not ensure an appropriate level of security in view of that bank's business activities, its risks taken, its business strategy, the quality of its risk management or the state of development of the techniques used.

Swiss Pillar 2 for non-G-SIBs – Principles

- **Banking Act Art. 4 para. 3: Competence of FINMA to raise or lower capital requirements / change capital definition in special cases**

- **Capital Adequacy Ordinance Art. 45: Additional Capital (Pillar 2)**

- **FINMA Circular 2011/2 “Capital buffer and capital planning in the banking sector”** → applicable from 1/7/11; transition until 31/12/16; amended on 5/7/12

- **Objective:**

- Hold capital for any **risks not covered by Pillar 1**
- Ensure **meeting minimum** requirements even in **adverse** circumstances
- Avoid **procyclical** behaviour & enhance overall financial stability
- Guidelines for internal **capital planning** processes & further P2 req.

- **Scope of application:**

- All banks and securities firms, except Category 1 (UBS & CS)
- For groups: at consolidated and solo level

Prudential supervisory categories for banks

FINMA Circular 2011/2, Annex

	Criteria (in CHF billions)		
Category 1³	Total assets	≥	250
	Assets under management	≥	1,000
	Privileged deposits	≥	30
	Required equity	≥	20
Category 2	Total assets	≥	100
	Assets under management	≥	500
	Privileged deposits	≥	20
	Required equity	≥	2
Category 3	Total assets	≥	15
	Assets under management	≥	20
	Privileged deposits	≥	0.5
	Required equity	≥	0.25
Category 4	Total assets	≥	1
	Assets under management	≥	2
	Privileged deposits	≥	0.1
	Required equity	≥	0.05
Category 5	Total assets	<	1
	Assets under management	<	2
	Privileged deposits	<	0.1
	Required equity	<	0.05

In order to meet the requirements for a category, at least three of the criteria listed above must be satisfied.

Target ranges for capital buffers

	capital ratio ² determining adequacy target	capital ratio below which immediate and extensive action is taken under regulatory law (intervention threshold)
category 2	13.6-14.4%	11.5%
category 3	12%	11%
category 4	11.2%	10.5%
category 5	10.5%	10.5%

Quality of capital to meet the target ranges

	CET1 (art- 21 seqq.- CAO)	AT1 (art. 27 seqq. CAO) or better	T2 (art. 30 seqq. CAO) or better
Category 2	8.7%-9.2%	2.1%-2.2%	2.8%-3.0%
Category 3	7.8%	1.8%	2.4%
Category 4	7.4%	1.6%	2.2%
Category 5	7%	1.5%	2%

- **Fundamental requirements**

- Specific for institution and economic cycle
- Three-year horizon
- Proportionate approach (business model, risk profile, size, complexity)
- Transparent & comprehensive documentation of assumptions

- **Content**

- Analysis in relation to strategic targets / integrated in overall planning (esp. income targets & budget process)
- Reliable forecast of available capital, incl. future profits, dividend policy & corporate actions
- Realistic assumptions with regard to business performance

- **Governance & process**

- **Management** determines plan & is responsible for process; **Board of Directors** approves capital plan at least annually

- **Review**

- **Audit firm** in supervisory audit; **FINMA** along categories

Higher capital requirements for riskier residential mortgages (permanent)

CAO Annex 3: Risk Weights for mortgages

3.	Positions in directly or indirectly secured mortgage loans	Risk Weights
3.1	Residential properties in Switzerland and abroad, up to two-thirds of the current market value.	35%
3.2.	Residential properties in Switzerland and abroad, above two thirds and up to 80% of the current market value.	75%
3.3.	Residential properties in Switzerland and abroad, above 80 % of the current market value.	100%
3.4.	Other properties and objects	100%

Art. 72 Para. 5 CAO

⁵ The risk weighting for mortgage-backed positions according to Appendix 3 is 100% as long as the credit business does not comply with the self-regulation minimum standards recognized by the FINMA (art. 7 para. 3 of the Financial Market Supervision Act of 22 June 2007¹⁵). The minimum standards must include:

- a. the borrower has contributed a reasonable minimum of capital to finance the property that neither originates from a pledge nor from an advance withdrawal as per art. 30 b and 30c of the Federal Act on Occupational Retirement, Surviving Dependents' and Disability Pension (BVG);
- b. the loan will be amortized in a reasonable timeframe and amount.

Exigences minimales pour les financements hypothécaires – Autoréglementation SwissBanking, juin 2012

2.1 Fonds propres

Pour les financements hypothécaires, une **part minimale de fonds propres** sur la valeur de nantissement, **ne provenant pas de l'avoir du 2^e pilier** (versement anticipé et mise en gage), est requise. Cette part minimale s'élève à **10%**.

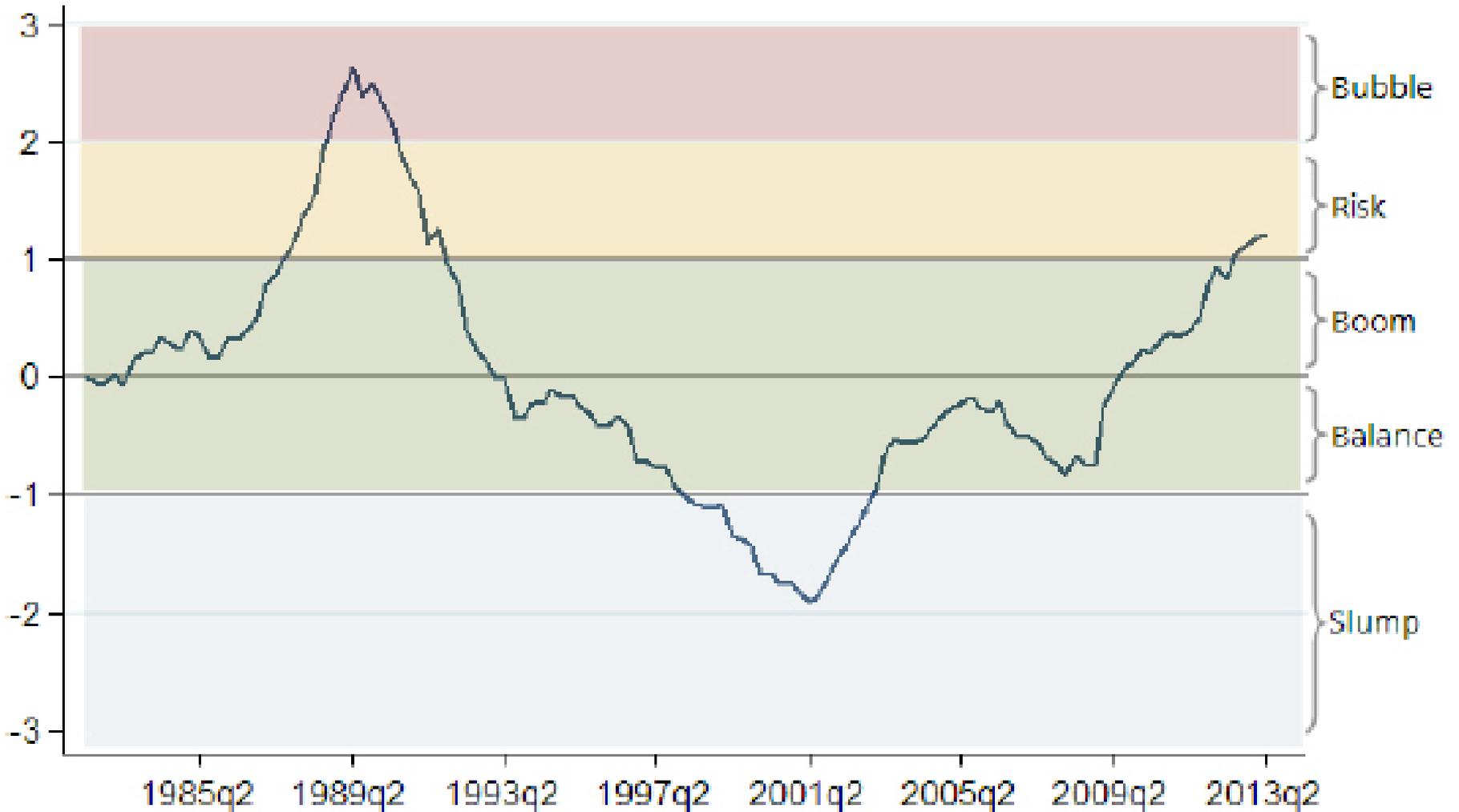
Cette disposition **ne s'applique** pas aux cas suivants énumérés de manière exhaustive:

- nouvelles réglementations de conventions d'utilisation (p. ex. prolongation d'hypothèques à taux fixe);
- reprises avec montant de crédit inchangé;
- augmentations dans le cadre de la gestion de positions Recovery;
- octroi de crédits d'exploitation avec des immeubles comme couverture complémentaire.

2.2 Amortissement

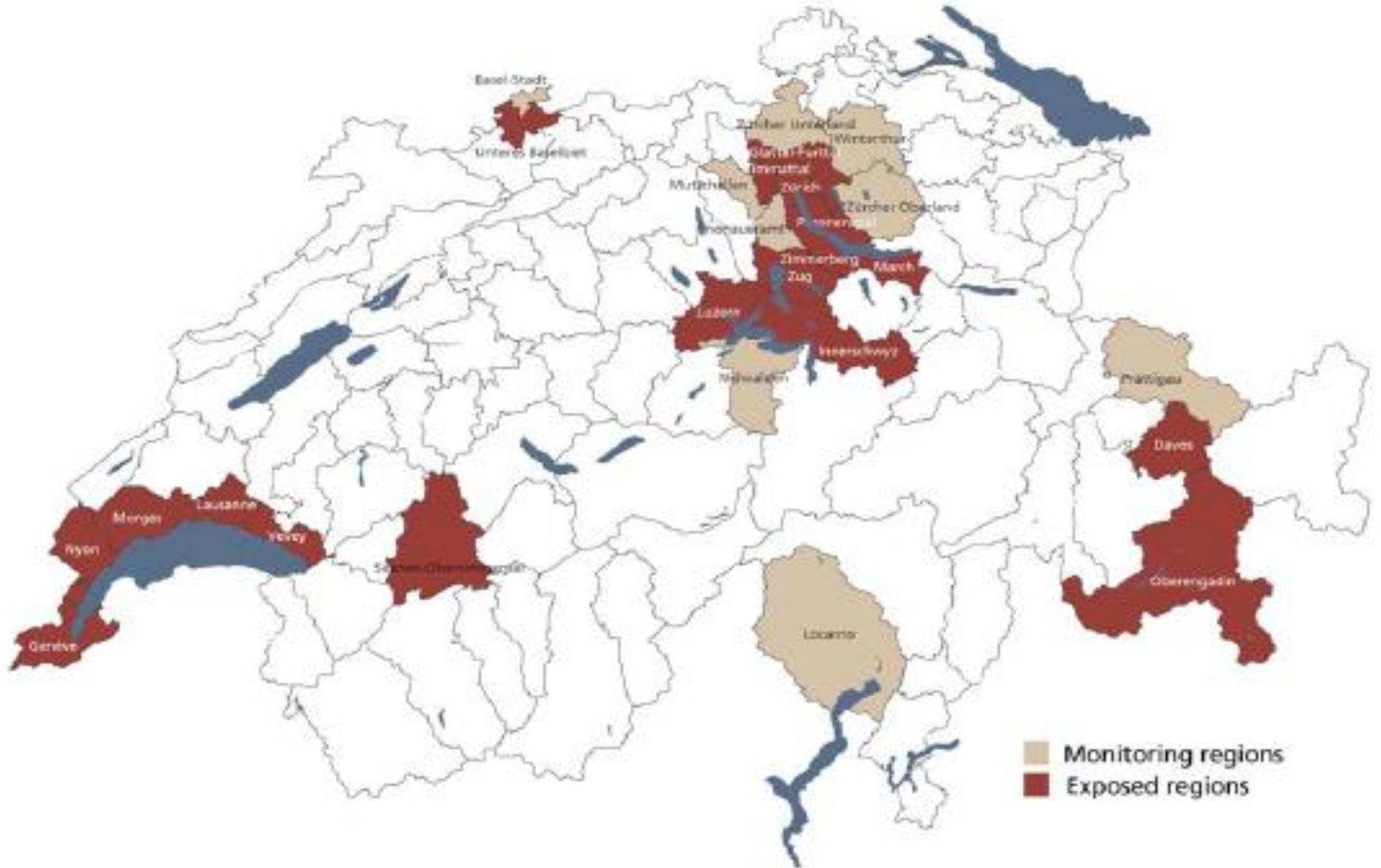
La dette hypothécaire doit être **ramenée aux deux tiers** de la valeur de nantissement de l'immeuble en l'espace de **20 ans maximum**.

UBS Swiss Real Estate Bubble Index – second quarter 2013



— UBS Swiss Real Estate Bubble Index

Regional risk map – second quarter 2013



CAO Art. 44: Counter-cyclical buffer

1 Upon the **Swiss National Bank's** request, the Federal Council may, if necessary, require the banks to hold a **counter-cyclical buffer of a maximum of 2.5%** of their risk-weighted positions in Switzerland in the form of common equity tier 1 capital to:

- a. **enhance** the banking sector's **resilience** against the **risk of excessive credit growth**; or
- b. **counteract excessive credit growth**.

2 The Swiss National Bank must **consult FINMA** prior to issuing such a request and simultaneously informs the Federal Department of Finance. If the Swiss Federal Council approves the request, this ordinance will be amended with a corresponding appendix.

3 The counter-cyclical buffer **may be limited to cover only certain credit positions**. Should the prevailing criteria for the buffer no longer apply, it will be **abolished or adjusted** to reflect the changed conditions. This procedure is based on paras. 1 and 2.

4 Art. 43 paras. 2 and 3 also apply to the counter-cyclical buffer.

Federal Council decision of 13 Feb. 2013: partial activation of CCB → 1% on residential mortgages from 30 Sept. 2013

Too big to fail (TBTF)

Not just a Swiss problem, but an extreme case: UBS & CS

•Dominant domestic market share

- **added ~ 40%** of deposits & loans; 45% of unsecured loans; 70% of export / trade finance
- UBS customers: 1/3 of households & pension funds; 40% of corporates; 85% of CH-domiciled banks
- Assets u. Management: UBS & CS ~ 50%
- Payment system (UBS: 1 mio trans. / day) & financial infrastructure

•Balance sheet before crisis (Q2/07)

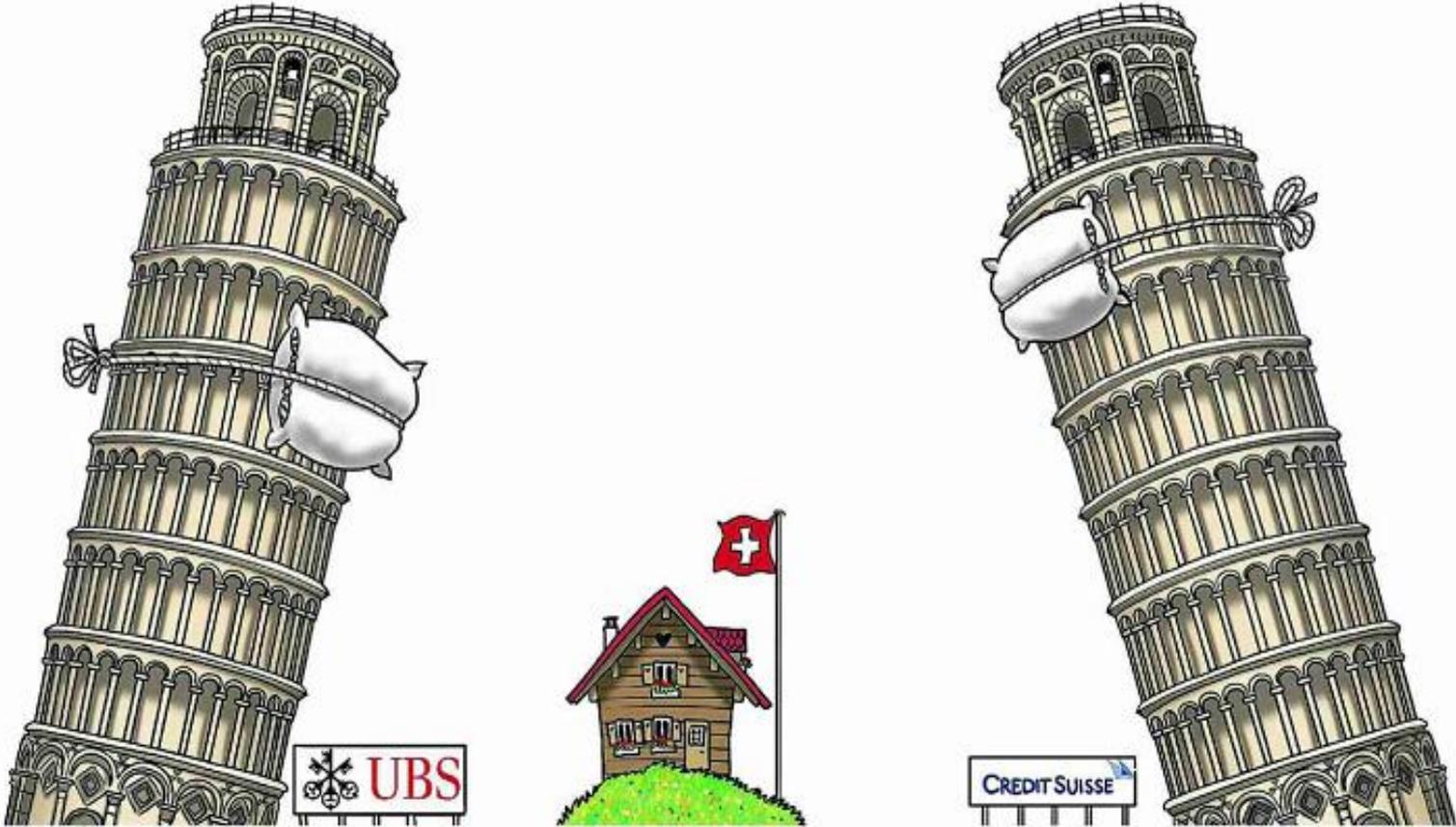
- UBS 2'542 bn CHF = 5,2 x GDP (2Q13: 1'129 bn. CHF) IFRS
- CS 1'415 bn CHF = 2,9 x GDP (2Q13: 920 bn. CHF) US-GAAP

•Main risks in **Investment Banking** abroad / risks in USA

•Potential damage of **bankruptcy**: GDP 15-30% s-t / 60-300% l-t

➤**Too big to fail / too big to rescue: CH-SIBs = TBTF²**

Switzerland: TBTF²



SILVAN WEGMANN

Objectives of Swiss SIB policy

- 1. Reduce risks** for the stability of Swiss financial system by enhancing resilience of SIBs
→ **reduce probability** of failure
- 2. Safeguard continuation of (systemically) important functions for the economy** in case of imminent insolvency of SIBs and enable **orderly resolution / liquidation** for global group
→ **reduce impact** of failure
- 3. Avoid public sector support and eliminate implicit state guarantee for SIBs**
→ protection of **tax-payers** / reinstate **market economy**

Art. 7 Definition and purpose

1 Systemically important banks are banks, financial groups and bank-dominated financial conglomerates, the **failure of which would cause considerable damage to the Swiss economy and the Swiss financial system.**

2 The provisions of this section, in conjunction with the generally applicable Banking Act provisions, **aim at further mitigating the risks presented by systemically important banks to the stability of the Swiss financial system**, thus ensuring the **continuation of these banks' economically important functions and avoiding recourse to state aid.**

Art. 8 Criteria and determination of systemic relevance

1 **Functions** are **system-relevant** if they are **indispensable to the Swiss economy** and **cannot be substituted at short notice**. System-relevant functions are, in particular, the **domestic deposit and lending business** as well as **payment transactions**.

2 A **bank's systemic importance** is determined by its **size**, its **interconnectedness** with the financial system and the economy as well as the **speed** at which the bank's services can be **substituted**. The following **criteria** in particular apply:

- a. the **market share** of system-relevant functions as per para. 1;
- b. the **amount of secured deposits** as per art. 37h para. 1 that **exceeds the maximum amount** as per art. 37 para. 3 lit. b;
- c. the **ratio of the bank's total assets to Switzerland's annual Gross Domestic Product**;
- d. the bank's **risk profile** as determined by its business model, balance sheet structure, asset quality, liquidity and debt/equity ratio.

3 After consulting the FINMA, the **Swiss National Bank** (SNB) will issue a **formal decision designating the systemically important banks** and their **system-relevant functions**.

1. Capital

- Increase ability to absorb financial shocks (more and better quality capital)
- New capital instruments (reserve and convertible capital)

2. Liquidity

- Increase crisis resilience with liquidity requirements based on sufficiently severe stress scenarios
- Liquidity Coverage Ratio (~ Basel III) implemented by FINMA 30.6.10 at group level

3. Risk diversification

Reduce interconnectedness within banking sector (large exposure limits / operational dependence) → lower limits for exposures of other banks to G-SIBs & G-SIBs' exposures

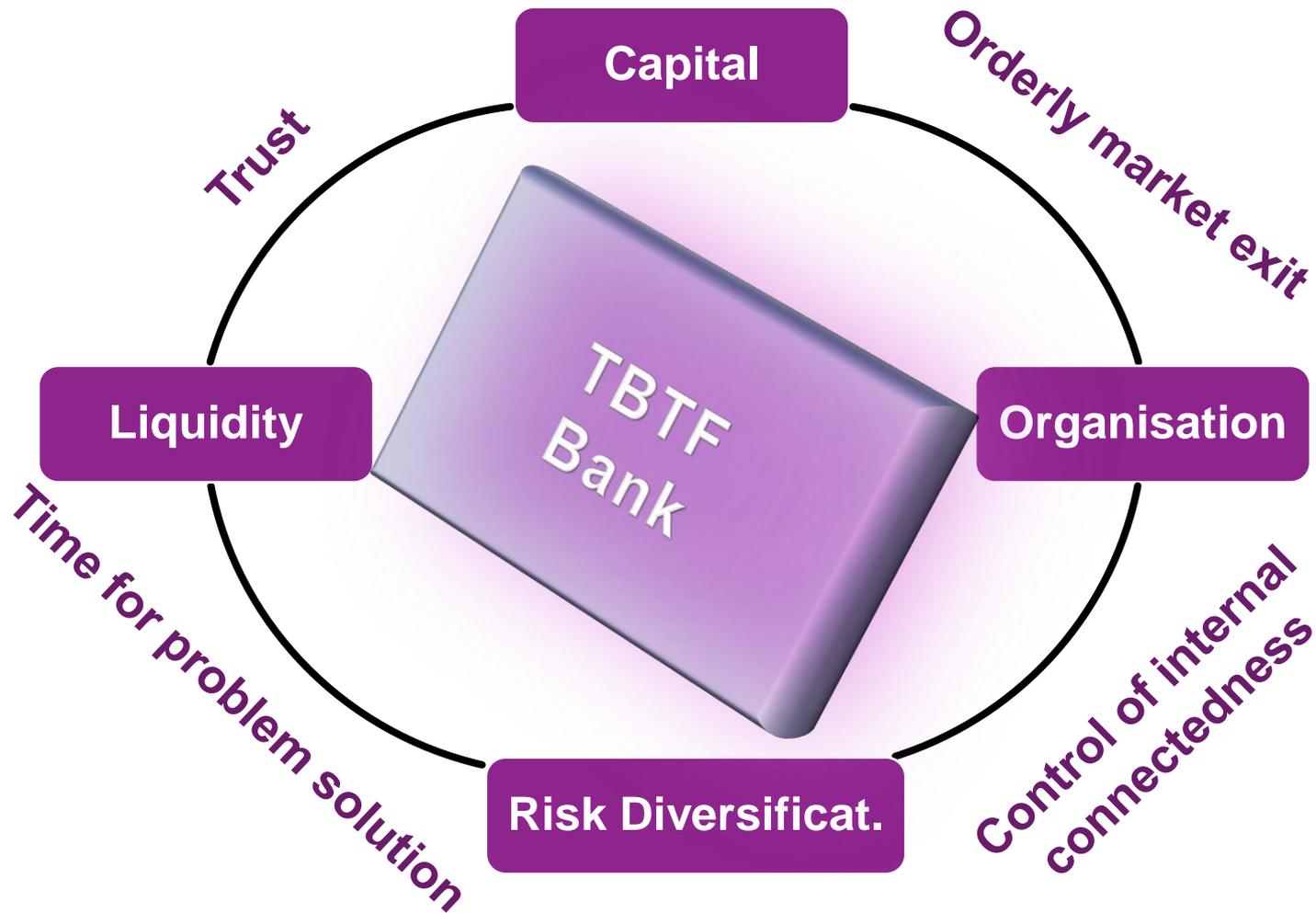
4. Organisation (Resolvability)

- Minimum: ensure continuation of systemically important functions in a crisis
- Improve resolvability / orderly liquidation of entire banking group

Effective combination of elements

- Contingent capital to fund resolution while maintaining vital services / functions
- Discounts from progressive capital charge for significantly improved global resolvability

Core elements: inter-related



Special requirements for systemically important banks in Banking Law

Art. 9 Special requirements

1 Systemically important banks must meet **special requirements**. The scope and structure of these are based on the **degree of systemic importance** of the bank concerned. The requirements must be **proportionate** to their benefit, make allowance for their **impact on the banks concerned** and on their **competitiveness**, and must also take into account **internationally recognized standards**.

2 In particular, systemically important banks must:

a. dispose of **capital** that:

1. shows a **higher loss absorbency** than that of not systemically important banks, as defined by legal requirements,

2. significantly contributes to ensuring the **continuation of system-relevant functions** in the event of **impending insolvency** (PONV),

3. is of a quality that sets incentives for the banks **to limit their degree of systemic importance** as well as to **improve their capacity to be restructured or liquidated** in Switzerland and abroad,

4. is measured for **its risk-weighted** assets on the one hand and for its **non-risk-weighted** assets (that may also contain off-balance sheet transactions) on the other hand;

b. dispose of **liquidity** that ensures a better absorbency of liquidity shocks compared to banks that are not systemically important and that can also service its outstanding payment commitments even in times of unusual stress;

c. **diversify risks** so as to limit counterparty risk and large exposures;

d. design its **emergency planning** with respect to structure, infrastructure, management and control as well as intra-group liquidity and capital flows in a way that it can be implemented immediately and ensures the continuation of the bank's system-relevant functions in the event of impending insolvency.

Capital Ordinance (OFR): Regulation for G-SIBs

Titre 5 Dispositions applicables aux banques d'importance systémique

Chapitre 1 **Dispositions générales**

[Art. 124 Principe](#)

[Art. 125 Assouplissements pour les groupes financiers et les établissements individuels](#)

Chapitre 2 **Capital convertible pris en compte**

[Art. 126 Description et émission](#)

[Art. 127 Prise en compte](#)

Chapitre 3 **Exigences en matière de fonds propres pondérées en fonction des risques**

[Art. 128 Exigence de base](#)

[Art. 129 Volant de fonds propres](#)

[Art. 130 Composante progressive](#)

[Art. 131 Taux de progression](#)

[Art. 132 Volant anticyclique](#)

Chapitre 4 **Exigences non pondérées en matière de fonds propres («leverage ratio»)**

[Art. 133 Principe](#)

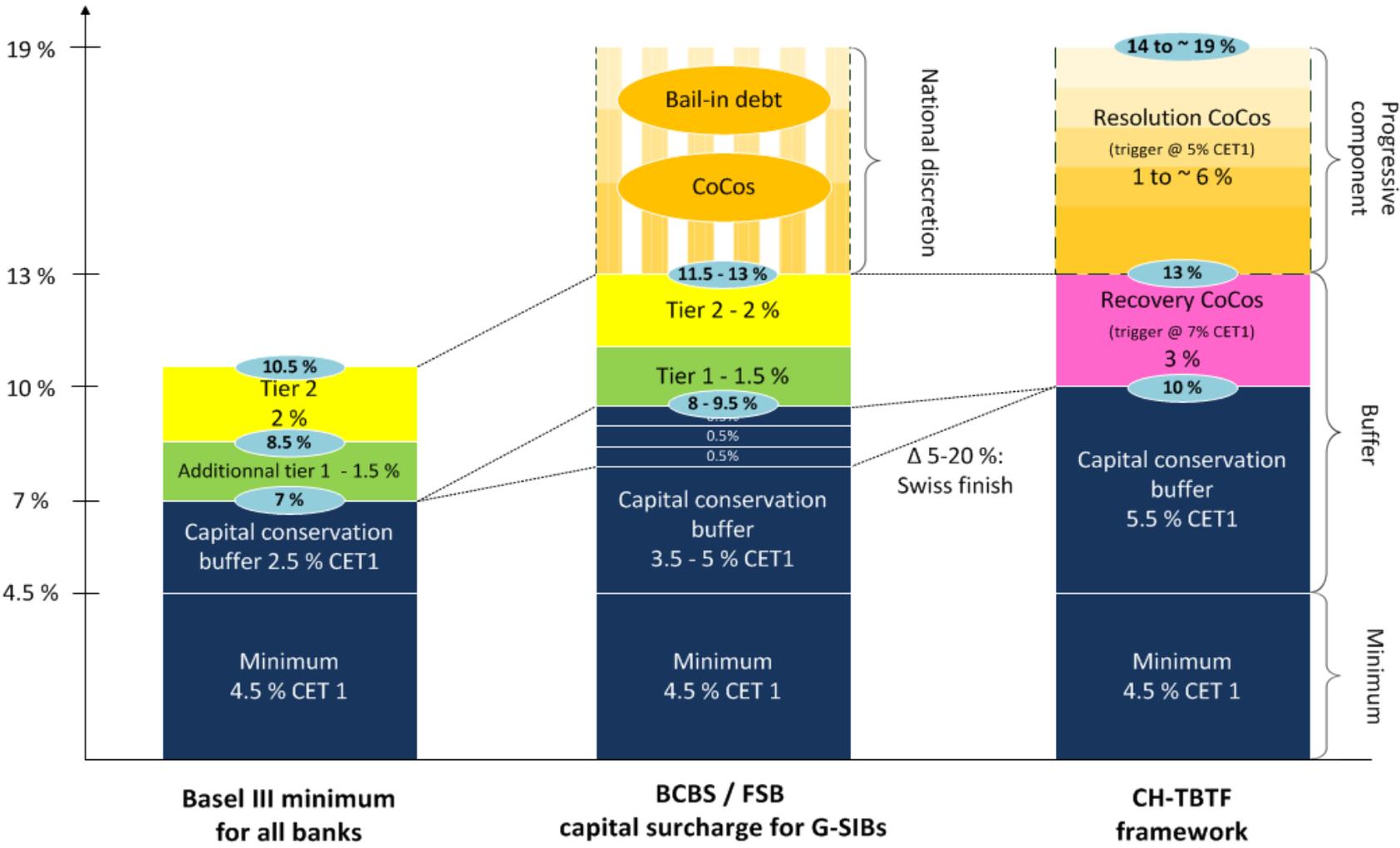
[Art. 134 Calcul](#)

[Art. 135 Engagement total](#)

Chapitre 5 **Prescriptions particulières sur la répartition des risques**

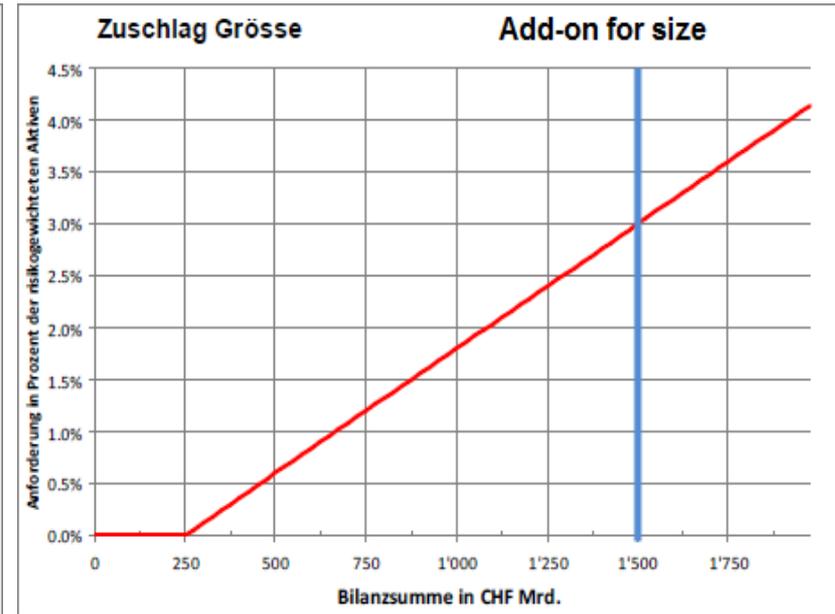
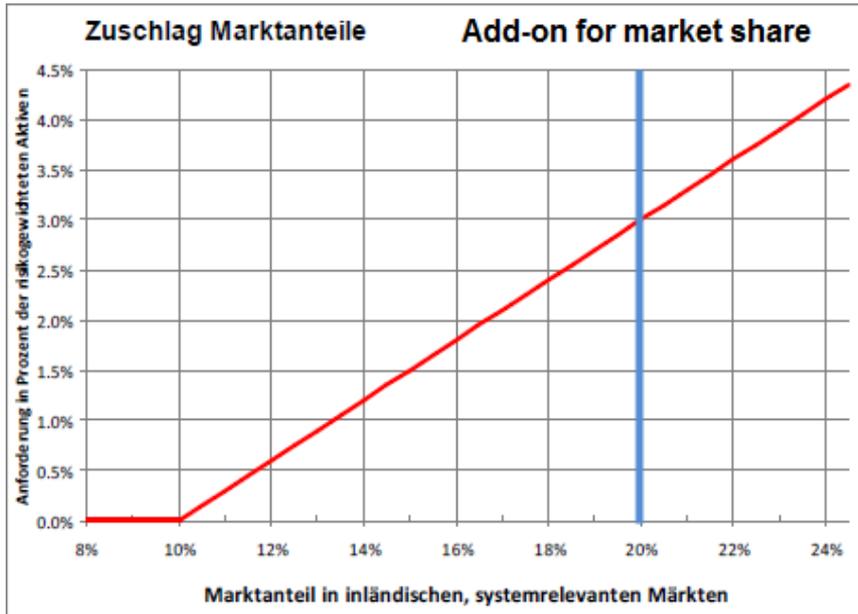
[Art. 136 Gros risque](#)

Risk-weighted capital requirements CH-TBTF rules vs. Basel III & G-SIBs



Progressive component of Swiss capital surcharge

Design & Calibration as of end 2009



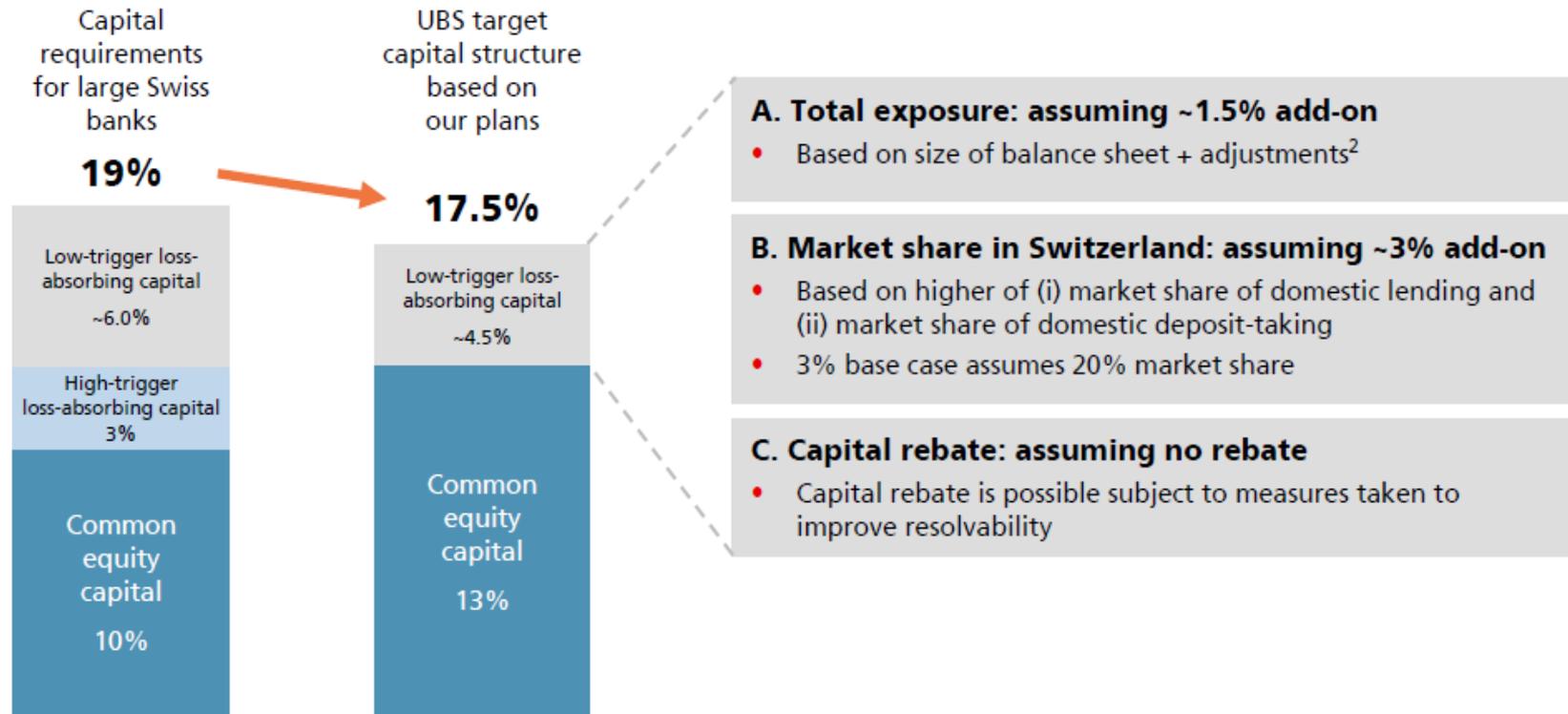
Assumption for each bank:
20% of share in domestic, systemic markets
Add-on = 3% RWA

Assumption for each bank:
Balance sheet 1500 bn CHF
Add-on = 3% RWA

Total add-on = 6% RWA
Discounts for enhanced
resolvability

FINMA Basel III total capital requirements for large Swiss banks¹

UBS's total capital requirement will be a function of total exposure, market share in Switzerland and a possible capital rebate



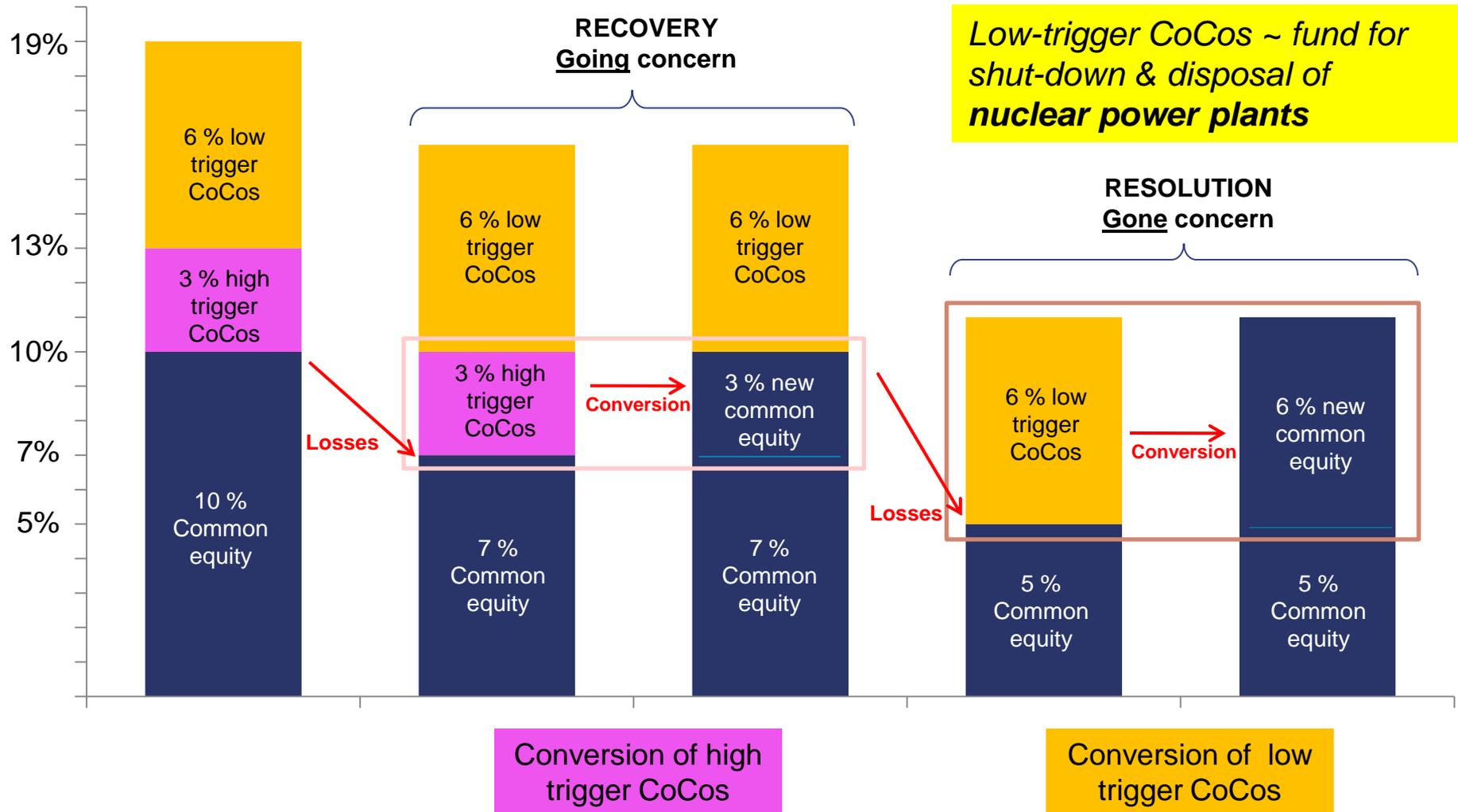
Our total capital requirements are expected to fall to 17.5% reflecting the planned decrease in RWAs and balance sheet



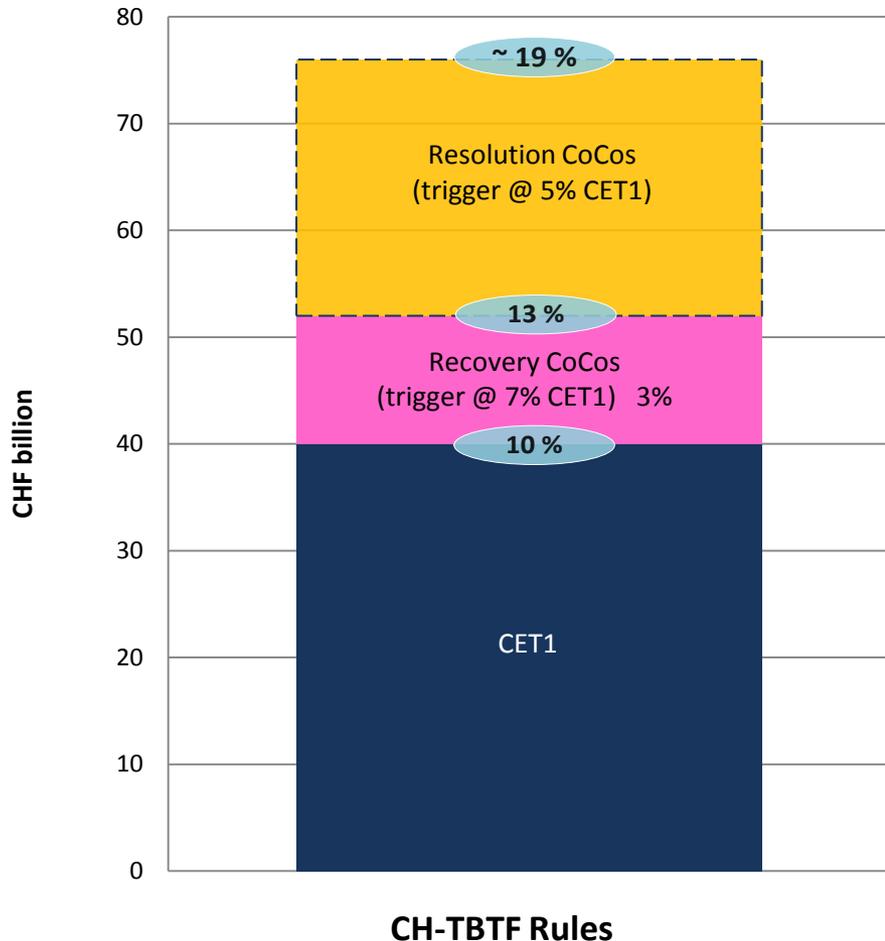
¹ Based on Swiss capital adequacy ordinance

² Balance sheet exposures net of specific provisions, derivative exposure netting and repurchase agreements; adjustments for OTC derivatives, off-balance sheet commitments and contingent liabilities

CoCos - Conversion Mechanisms



CH-TBTF Rules: illustration of risk-weighted requirements in CHF billion



Assumptions for each bank (end 2009)

- RWAs Basel III 400 bn CHF
- B/S 1500 bn CHF
- Market share 20%
(domestic, system. relevant)

Risk-weighted capital requirements

- 10% CET1
 - @ 400 bn RWAs = **40 bn CHF**
 - @ 300 bn RWAs = **30 bn CHF**
 - @ 200 bn RWAs = **20 bn CHF**

UBS crisis losses (Q3 07 – Q4 09)

- Net loss 40 bn CHF
- Losses/write-downs 57 bn USD

Losses in going concern!

Gone concern much more expensive

Calibration of LR under status quo: in normal case slightly below RW-requirements and thus no constraint for banks

- If RWA and B/S change in same proportions: LR should keep same distance below RW-requirements
- LR with **buffer & progressive component** as in RWA-Ratio
 - ✓ Principle of higher LR for Swiss G-SIBs correct (**no 3% flat rate** as in Basel III)
 - but diluted by design

Problems of CH-LR vs. Basel III LR

- ⊗ **Definition of capital**: includes **all CoCos** for LR in same proportion as RWA-Ratio (35% of buffer & 100% of progressive component) → **wider definition than Basel III** test LR (=Tier 1); low-trigger CoCos @5% CET1 not eligible as Tier 1 → only gone concern ~ reserve for shut-down & disposal of nuclear power plants
- ⊗ **Low Assumption for Ratio RWAs / Total Exposure** → high leverage
 - CH-TBTF Expert Commission: 400 / 1500 bn. = 27%
 - Basel III Minimum: 3% LR / 6% Minimum Tier 1 RWA-Ratio = 50%
 - Art. 134 CAO: **Leverage Ratio fixed at 24% of RWA-Ratios**

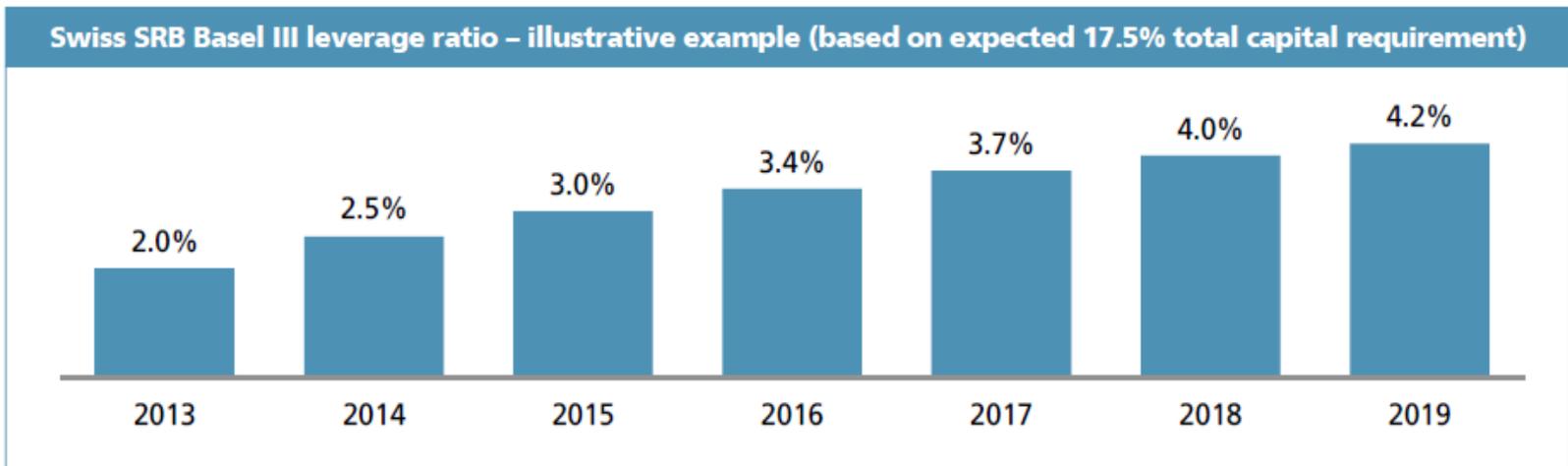
Swiss SRB Basel III leverage ratio

UBS's phase-in Swiss SRB Basel III leverage ratio above minimum requirements

- **UBS's phase-in Swiss SRB Basel III leverage ratio of 3.9% on 30.6.13¹**

$$\frac{\text{Total capital (Phase-in CET1 + loss absorbing capital)}}{\text{Total exposure (Total IFRS assets + adjustments)}} = \frac{\text{CHF 44.9 billion}}{\text{CHF 1,141 billion}} = 3.9\%$$

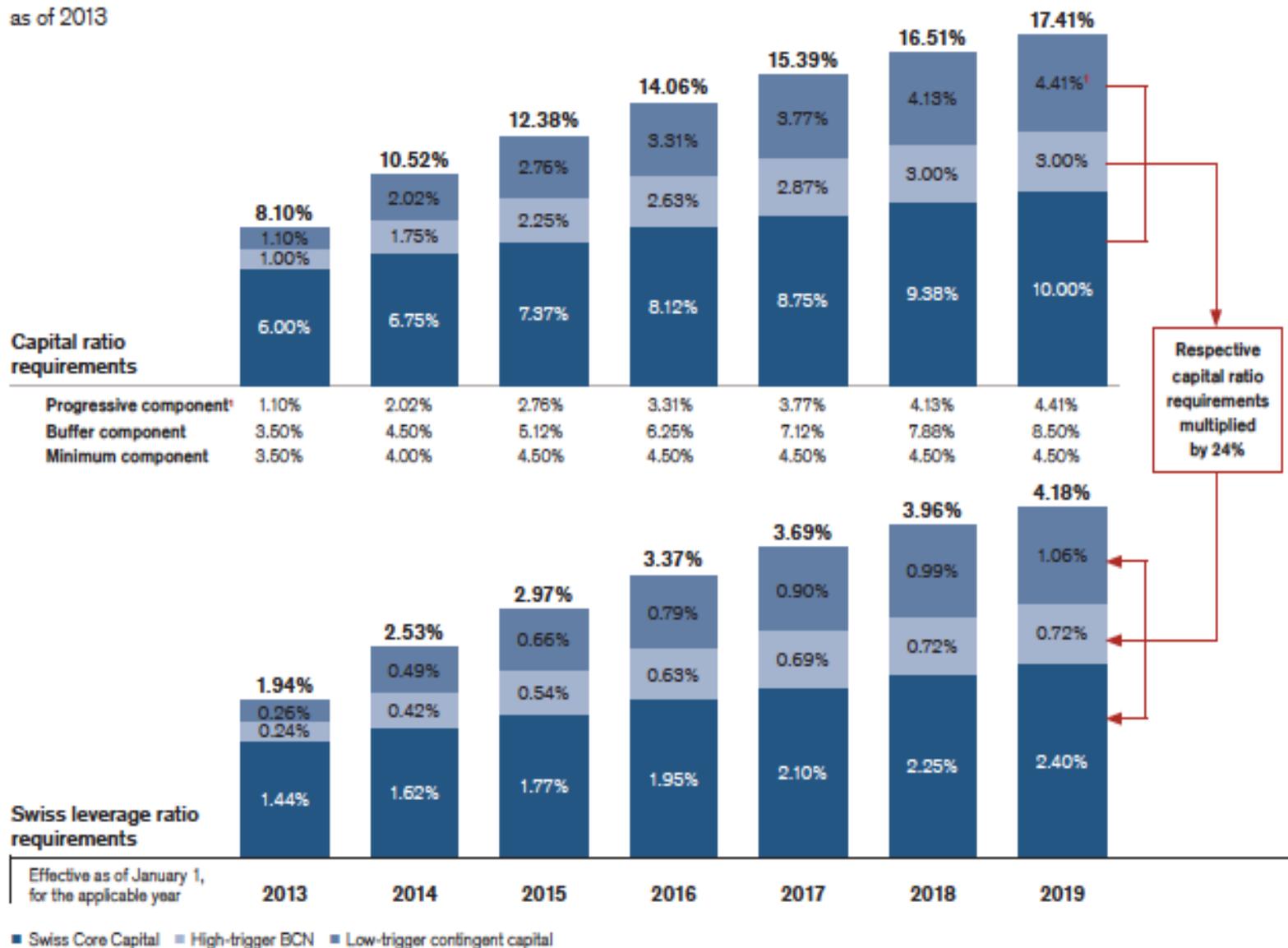
- The minimum leverage ratio is defined as the total capital requirements x 24% (e.g. expected 17.5% total capital requirement x 24% = 4.2%)



Refer to slide 36 for details about adjusted numbers, Basel III numbers and FX rates in this presentation
1 For information on the leverage ratio refer to pages 75-76 of the 2Q13 financial report

Swiss capital and leverage ratio phase-in requirements for Credit Suisse

as of 2013



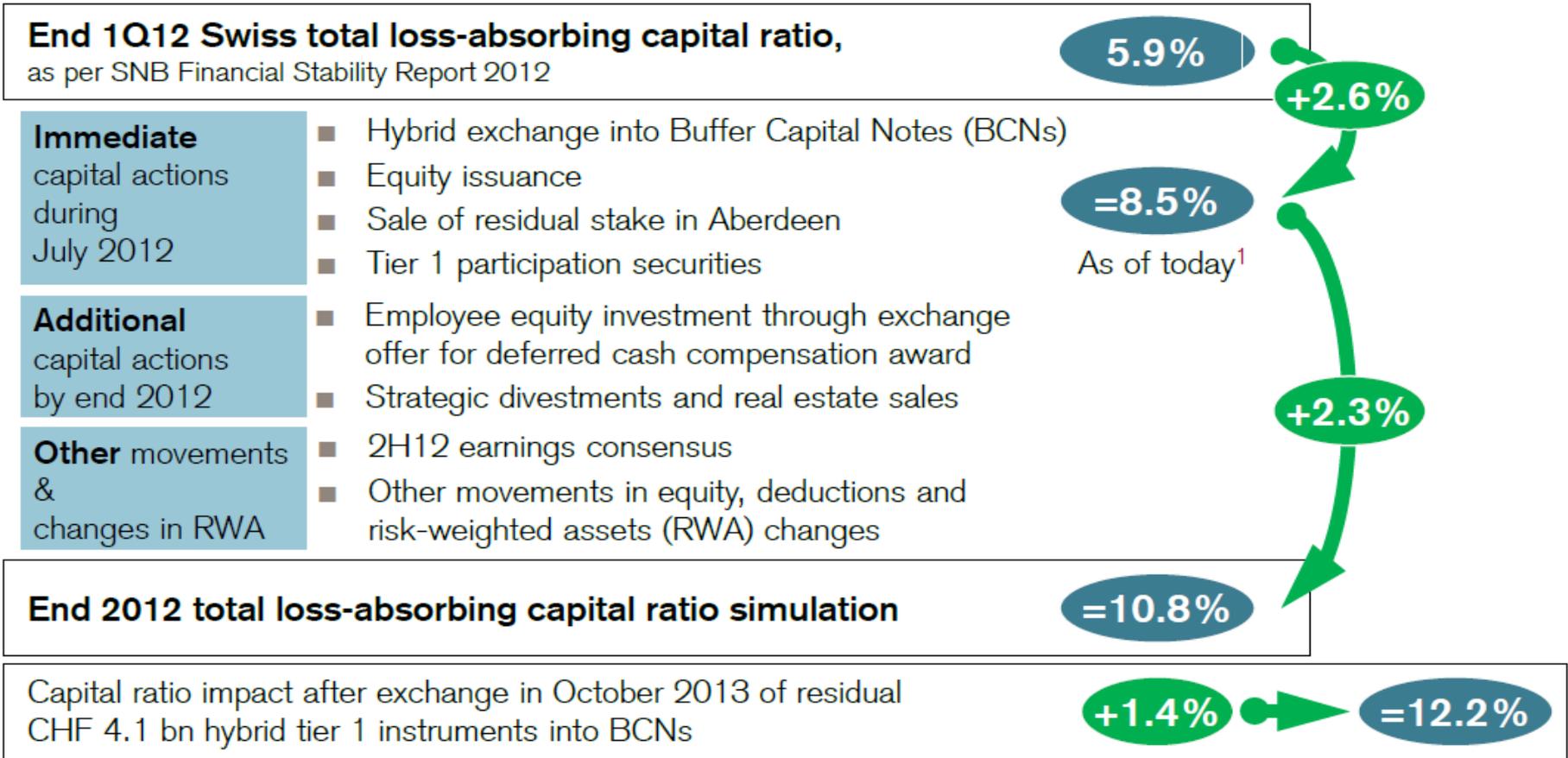
Despite progress achieved, the SNB considers that, in view of the loss potential under this scenario, the big banks' loss-absorbing capital is still below the level needed to ensure sufficient resilience. At the end of March 2012, risk-weighted capital ratios calculated using loss-absorbing capital¹ and risk-weighted assets under the new regulations, i.e. Basel III and Swiss 'too big to fail' regulations, came to about 5.9% for Credit Suisse² and 7.5% for UBS.³ Relative to the net balance sheet total,⁴ however, loss-absorbing capital only amounted to around 1.7% at Credit Suisse and 2.7% at UBS. This capital would, for example, be insufficient to absorb losses such as those experienced by UBS in the recent crisis (over 3% of the net balance sheet total).

The SNB is therefore of the view that both big banks should further expand their loss-absorbing capital. For UBS, this implies a continuation of its capital strengthening process; and for Credit Suisse, an acceleration of the process, with a marked increase during the current year. Strengthening

both institutions should report each quarter on the new regulatory indicators under full Basel III implementation – as, indeed, UBS has done in the two most recent presentations of its quarterly results. To transparently demonstrate their ongoing progress in risk reduction, they should calculate and disclose their risk-weighted assets not just according to internal models, but also according to the Basel standardised approach.

Reaction of Credit Suisse to SNB Financial Stability Report 2012

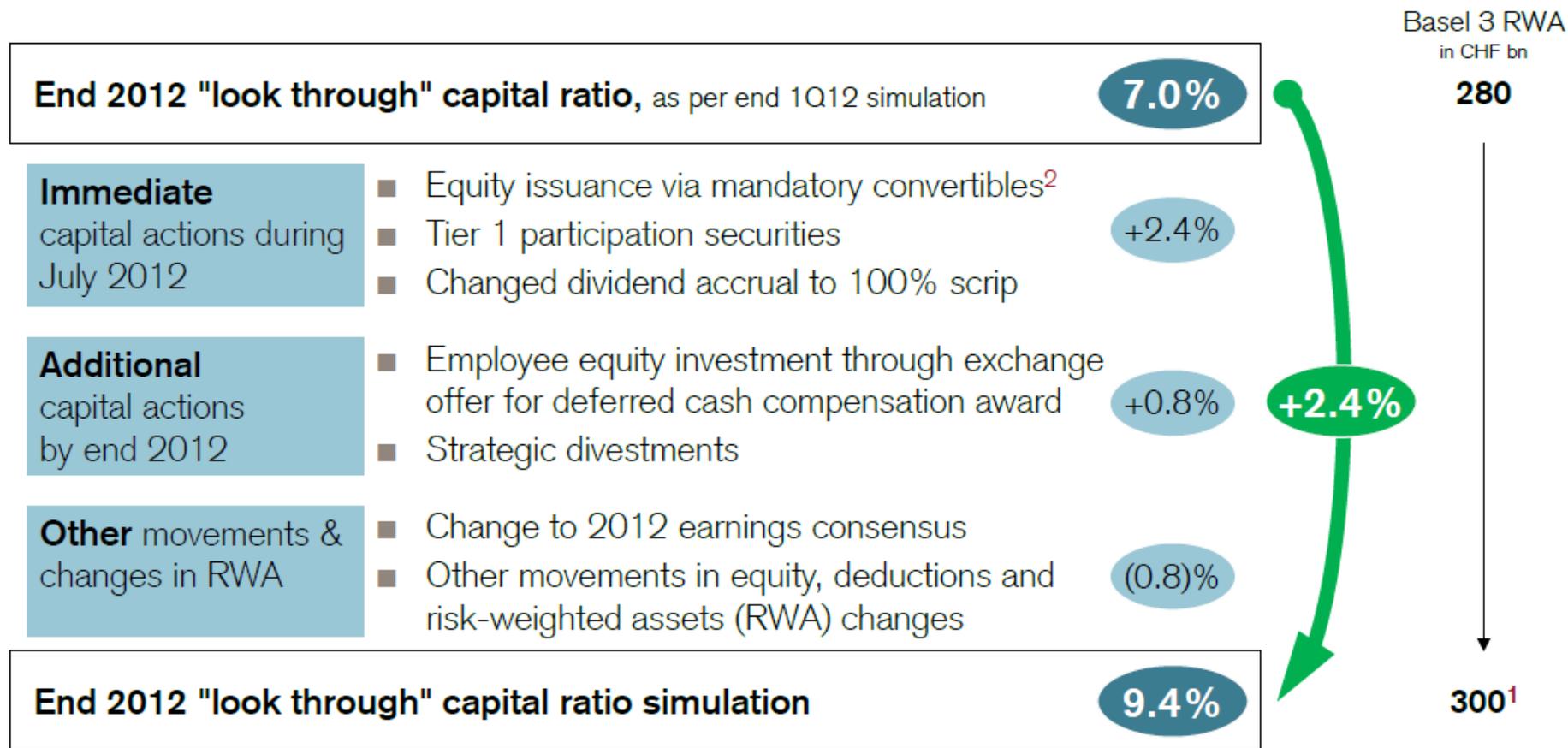
Impact on total loss-absorbing capital ratio as per SNB Financial Stability Report



¹ End 2Q12 actual adjusted for immediate capital measures and related benefit from lower threshold deductions. Using actual end 1Q12 regulatory deductions, instead of end 2012, the ratio would be 8.5% (see page 26).
 Note: Strategic divestments may be announced but potentially not closed by year-end 2012; Simulation assumes constant FX rates

„Look through“ CET 1 simulation: Credit Suisse

"Look through" Swiss core capital ratio of 9.4% by end 2012



Note: Strategic divestments may be announced but potentially not closed by year-end 2012; Simulation assumes constant FX rates

1 End 2012 goal of CHF 300 bn reflects current FX rates and estimates for Basel 3 treatment; includes RWA in Investment Banking at or below current levels (in USD)

2 Excludes 33.5 million shares in respect of the purchase of the residual minority stake in Hedging-Griffo as already included in 7% as per end 1Q12



- **Law: surcharges apply on consolidated and solo level, just as general rules of Banking Act on capital, liquidity, large expos.**
- **Banks' position:** ExCo only agreed on level of surcharges at consolidated group level – application of 19% RWA-charge to parent bank would raise aggregate charge to 23-26%
- **Parliamentary debate:** big confusion and strong minority for total cap at 19%
- **Non-Alignment between group and solo level comes from**
 - **Deduction** of participations in Subs. from parent CET1, circumvented by intermediate financial holding companies
 - **Centralised treasury** function of parent for funding of Subs.: exempted from capital requir. at parent by EBK via G10-Relief
- **FINMA forced to grant exemptions at parent bank / solo level**
→ **weakening of parent bank** Art. 125 CAO (ERV / OFP)

Alleviations at group and individual entity level (Art. 125 CAO)

1 FINMA grants **alleviated provisions at individual entity level**, if:

- a. the **requirements at financial group level increase** due to the requirements imposed at stand-alone entity level; and
- b. the bank has taken **reasonable measures to avoid increased requirements at financial group level**.

2 Measures enforcing the implementation of a **specific corporate structure or organization** are considered **unreasonable**.

3 Changes to the corporate structure or organization make a bank entitled to alleviated provisions only if doing so will satisfy the requirements of paragraph 1.

4 In particular, the following **alleviated provisions** may be granted **individually or in combination** according to paragraph 1:

- a. the **capital adequacy** requirements for individual entities are defined in view of the requirements of the financial group. For **systemically important individual entities** the capital must amount to **at least 14%** of risk-weighted positions;
- b. the deductions for interests are reduced;
- c. the capital adequacy requirements are **reduced for intra-group exposures**; and
- d. the **group's financing** is exempt.

5 The **particular requirements** at financial group level and at systemically important stand-alone entity level as well as the **granted alleviated provisions** are to be **disclosed** by:

- a. FINMA in regard to their main features; and
- b. the bank or financial group concerned in its ordinary disclosures, including the capital ratio.

Resolution and Organisation

• Domestic Resolution Regime

- Allows continuation of banking services in an insolvency → transfer to bridge-bank
- Supports rapid restructuring
- Facilitates recognition of measures adopted by foreign resolution authorities

• International Regime

- Cross Border Crisis preparation groups
- Bilateral agreements / MoUs
- International resolution regime

• Preparation by Banks

- **Recovery** (Bank) and **Resolution** (Authorities) Plans
- Reduce internal interconnectedness
- Ensure continuation of vital services in an insolvency
- Reduce complexity of structures, intra-group financial flows and commitments
- Avoid geographical asymmetries

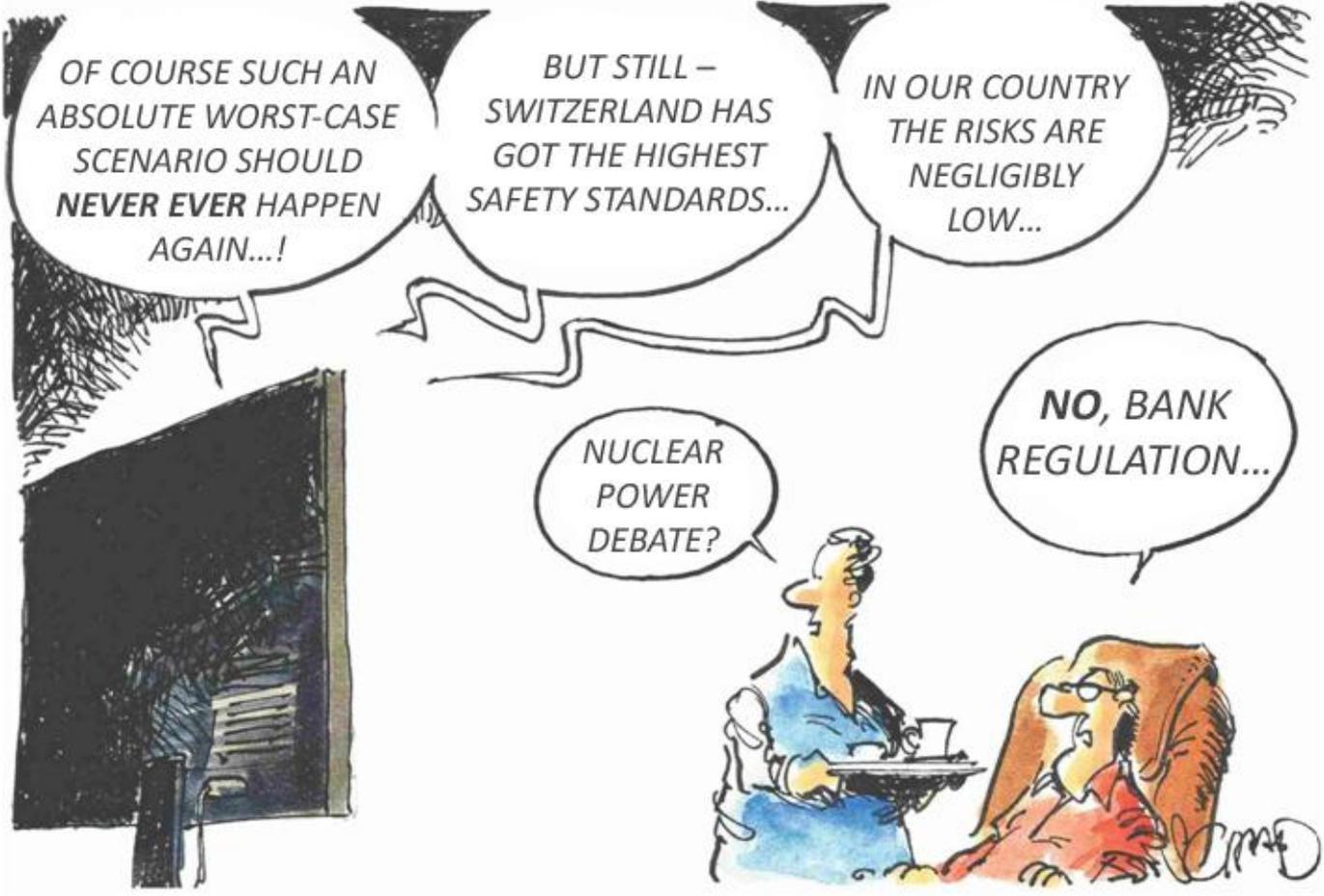
FSB Document 4/11/11: Effective Resolution of Systemically Important Banks
FSB Thematic Review on Resolution Regimes, Peer Review Report, 11 April 2013

Section XV: Transitional and Final Provisions

Art. 52

The Swiss **Federal Council** must **review** the provisions in regard to their **comparability** with the corresponding **international standards** and their **degree of implementation abroad** no later than **3 years after the entry into force** of Sections V and VI of the amendment dated 30 September 2011, and after this, at an interval of **2 years**. It will **report** its findings to the Swiss **Federal Assembly** and highlight the **possible need for amending laws and ordinances**.

Swiss political debate about tail risks



Source: Tages-Anzeiger, Zurich, 24.03.2011; Translated by FINMA

• Identification of SIFIs (initial focus on banks = SIBs)

- Global = **G-SIBs** ~ 28
- **Methodology** comprises **5 indicators**: global activity / size (total assets) / interconnectedness / substitutability / complexity
- domestic / regional SIBs (D-SIBs) → from 2016

• Measures / policy framework to address G-SIBs

- **Higher loss absorbency** (CET1, CoCos, bail-in bonds)
- **Large exposure** rules / enhanced **liquidity**?
- **Supervisory intensity & effectiveness** → FSB SIE Recommendations 2/11/10
- **Resolvability** (incl. nat. resolution frameworks / cross-border crisis management / RRP = recovery & resolution plans of banks & authorities) → FSB Key Attributes of **Effective Resolution Regimes** for FI, Oct. 2011
- (Bank levies)
- **FSB Peer Review** to monitor implementation

• **FSB SIB Policy Framework approved by G20-Summit on 4/11/11** → phase-in 1/1/2016 - 2019

BCBS indicators for systemic relevance

Indicator-based measurement approach

Table 1

Category (and weighting)	Individual indicator	Indicator weighting
Cross-jurisdictional activity (20%)	Cross-jurisdictional claims	10%
	Cross-jurisdictional liabilities	10%
Size (20%)	Total exposures as defined for use in the Basel III leverage ratio	20%
Interconnectedness (20%)	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Securities outstanding	6.67%
Substitutability/financial institution infrastructure (20%)	Assets under custody	6.67%
	Payments activity	6.67%
	Underwritten transactions in debt and equity markets	6.67%
Complexity (20%)	Notional amount of over-the-counter (OTC) derivatives	6.67%
	Level 3 assets	6.67%
	Trading and available-for-sale securities	6.67%

BCBS progressive capital surcharges for G-SIBs

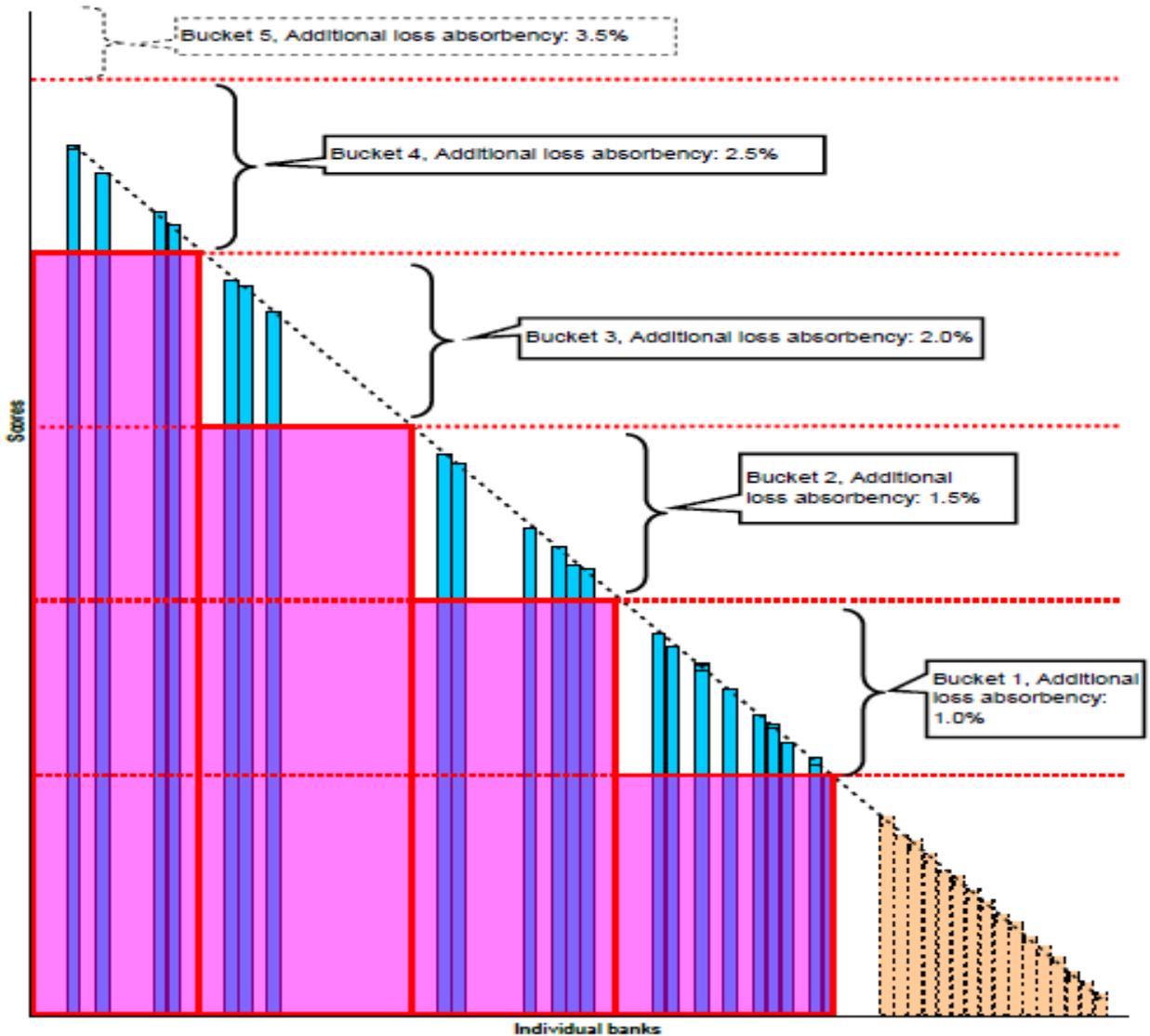
Bucketing approach

Table 2

Bucket	Score range*	Higher loss absorbency requirement (common equity as a percentage of risk-weighted assets)	
5	empty	D-E	3.5%
4		C-D	2.5%
3		B-C	2.0%
2		A-B	1.5%
1		Cutoff point-A	1.0%

* All score ranges are equal in size. Scores equal to one of the boundaries are assigned to the higher bucket.

Illustrative distribution of scores of G-SIBs and their allocation to buckets (BCSB report July 2013: updated assessment methodology)



G-SIBs as of November 2012 allocated to buckets corresponding to required level of additional loss absorbency (FSB, 1 November 2012)

Bucket ⁴	G-SIBs in alphabetical order within each bucket
5 (3.5%)	(Empty)
4 (2.5%)	Citigroup Deutsche Bank HSBC JP Morgan Chase
3 (2.0%)	Barclays BNP Paribas
2 (1.5%)	Bank of America Bank of New York Mellon Credit Suisse Goldman Sachs Mitsubishi UFJ FG Morgan Stanley Royal Bank of Scotland UBS
1 (1.0%)	Bank of China BBVA Groupe BPCE Group Crédit Agricole ING Bank Mizuho FG Nordea Santander Société Générale Standard Chartered State Street Sumitomo Mitsui FG Unicredit Group Wells Fargo

Have we solved the TBTF problem? – No!

Andrew Haldane, Bank of England, **On Being the Right Size – Understanding Systemic Risk**, Swiss Finance Institute, Zurich, 24 January 2013

<http://www.swissfinanceinstitute.ch/podcasts.htm>

Basel III review - Regulatory Consistency Assessment Program

BCBS: Fundamental review of trading book capital requirements

Consultative Document, May 2012

- **More objective boundary between Trading Book – Banking Book** → reduce scope for regulatory arbitrage. Two alternative boundary definitions:
 - **Trading evidence:** evidence on ability to trade & risk manage on trading desk
 - **Valuation based:** when changes in fair value pose risks to solvency
- **Move from VaR to expected shortfall** → better capture **tail risk** – expected value of losses beyond given confidence level
- **Stressed calibration** for both SA and internal models
- **Comprehensive incorporation of risk of market illiquidity**
- **Reduce model risk** by more granular models approval process & constraints on diversification
- **Revised Standardised Approach (SA)** → more risk sensitive and credible fallback to internal models
- **Strengthen relationship between internal models and SA**
 - **Mandatory calculation of SA by all banks**
 - **Consider merits of SA as floor or surcharge to internal models approach**
 - Closer alignment of treatment of **hedging & diversification** in both approaches

BCBS: Regulatory Consistency Assessment Program (RCAP)

Report to G20 Leaders on Basel III implementation, June 2012

•Level 1: Timely adoption of Basel III

- Ensure that Basel III is transformed into domestic regulation according to international timelines. **No review of content / substance** of domestic rules.

•Level 2: Regulatory consistency

- Ensure **compliance of domestic regulations with international minimum requirements**, starting with EU, Japan and US; 2013 SGP, CH, China (priority: home countries of G-SIBs)

•Level 3: **Consistency of outcomes**, initially focussed on **risk-weighted assets**

- Examine whether there are **unjustifiable inconsistencies in risk measurement approaches** across banks and jurisdictions → review of banks' risk-weighting practices via test portfolio exercises, horizontal reviews & joint on-site visits to large, internationally active banks → **expert groups** on banking / trading book → **policy recommendations** to address identified inconsistencies
- BCBS report: Analysis of RWA for **market risk in trading book**, January 2013
- BCBS report: Analysis of RWA for **credit risk in banking book**, July 2013

BCBS Regulatory Consistency Assessment Program – Analysis of RWAs for market risk in the trading book, January 2013: key findings

• Analysis based on **public reports**:

- **Considerable variation** in average published **mRWAs / trading assets**
 - from **10% to nearly 80%** (most banks between 15% to 45%)
 - Only part of the variations can be explained by **actual risk taking**, but **other factors** may be driving variations across banks & jurisdictions:
 - **Differences in supervisory approaches and requirements**
 - **Differences in methodologies and modelling choices**

• Hypothetical **test portfolio exercise**

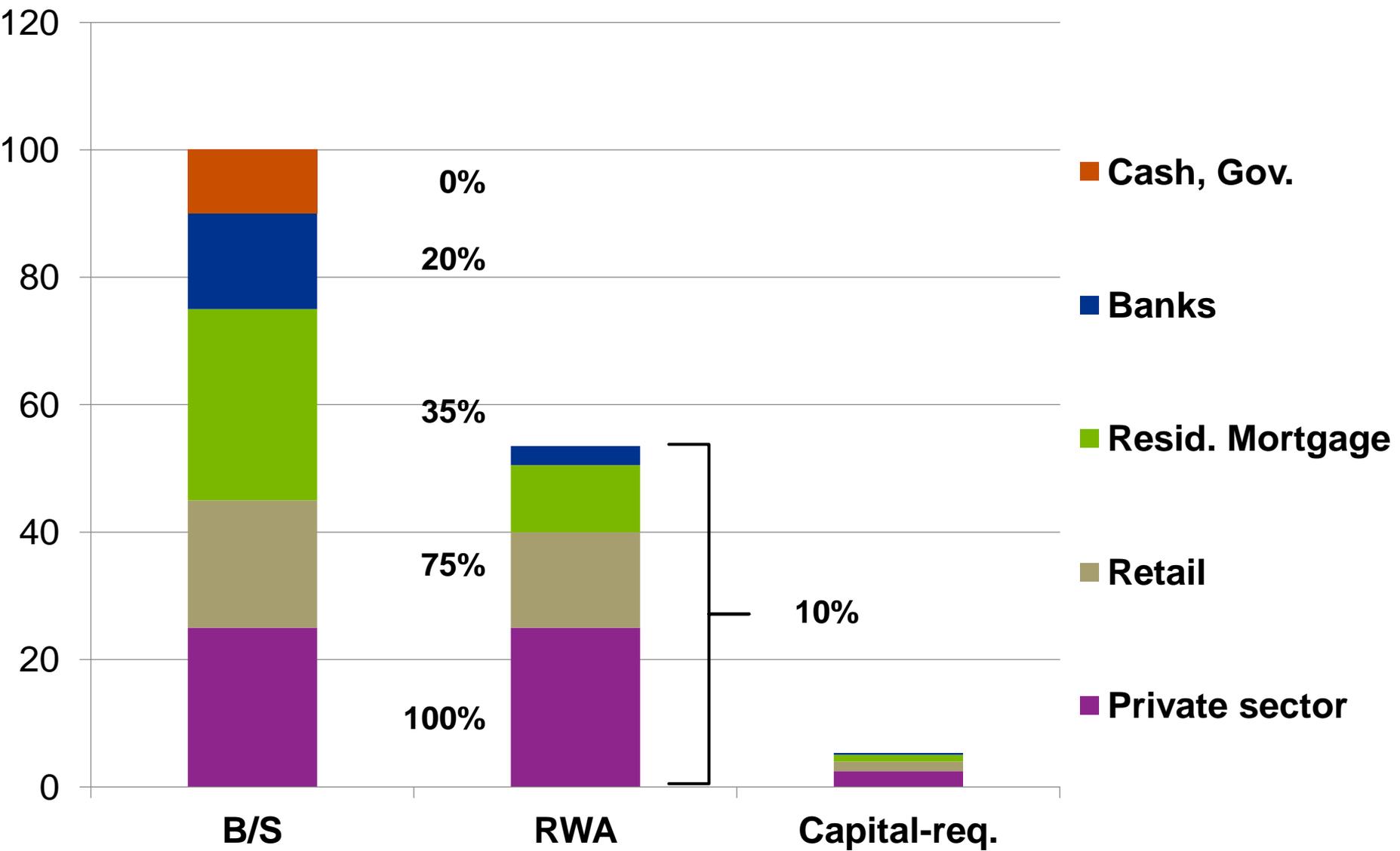
- **Substantial difference** between bank with lowest / highest mRWAs, due to
 - Variation caused by **banks' model choices** (e.g. length of data period)
 - Variation caused by **differences in supervisory multipliers** ($\frac{1}{4}$ of total)
 - ranging from 3 to 5.5

• **Potential policy responses**: improved public disclosure; narrow down banks' modelling choices; further harmonisation of supervisory practices

BCBS Regulatory Consistency Assessment Program – Analysis of RWAs for credit risk in the banking book, July 2013: key findings

- **Focus on credit risk important:** largest component of RWAs (60-80%); dominant source of variation at bank level (77% of observed variation)
- Focus on banks under **internal ratings-based (IRB) approach**
- **Top down analysis:** Supervisory data on > 100 major banks worldwide
- **up to ¾ of RWA-variation** driven by underlying **differences in risk composition** of banks' **assets** → consistent with higher risk sensitivity intended by Basel framework
- **Remaining variation** driven by **practices of supervisors** (e.g. floors, partial use of standardised app.) or **banks** under IRB (e.g. Advanced vs. Foundation; model assumptions)
- **Bottom up hypothetical portfolio benchmarking exercise (HPE):** matching **wholesale exposures** (sovereign, bank, corporate) of 32 large international banking groups from 13 jurisdictions (~ G-SIBs)
 - **High degree of consistency** in banks' assessment of the **relative riskiness of obligors** (same ranking order of individual borrowers within portfolio); however, **differences in levels** of estimated risk → notable **dispersion in estimates for PD and LGD** assigned to same exposures
 - **Material impact on capital ratios:** extremes of 1.5 – 2 percentage points around 10% benchmark; however most banks (22 of 32) lie within one percentage point
- **Policy options for consideration:** enhanced disclosure (short-term); further harmonise national implementation & put constraints on IRB parameter estimates (medium term)

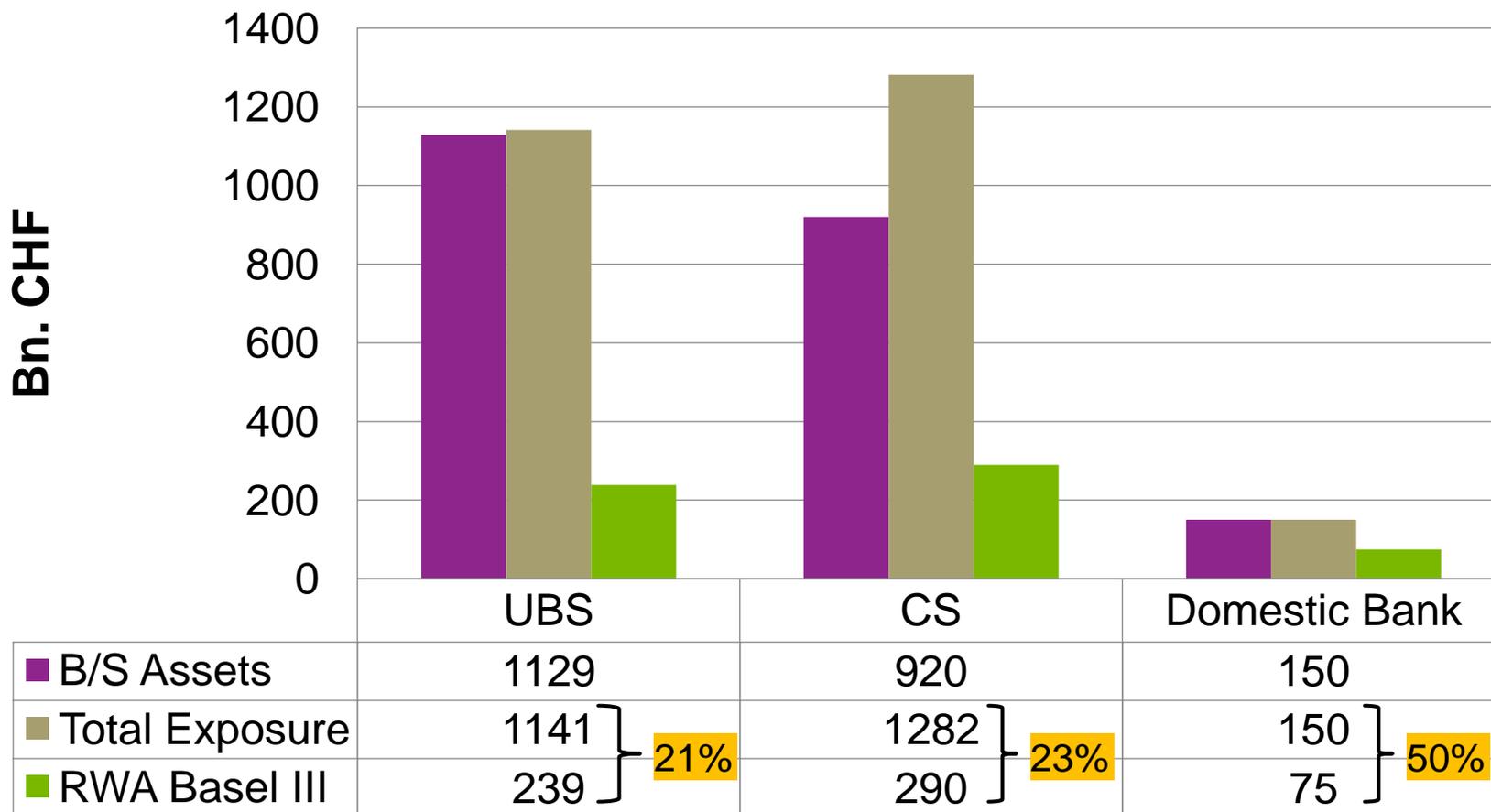
Risk-weighted assets as base for capital requirements – credit risk standardised approach



Risk density: Ratio of RWAs / Total Exposure

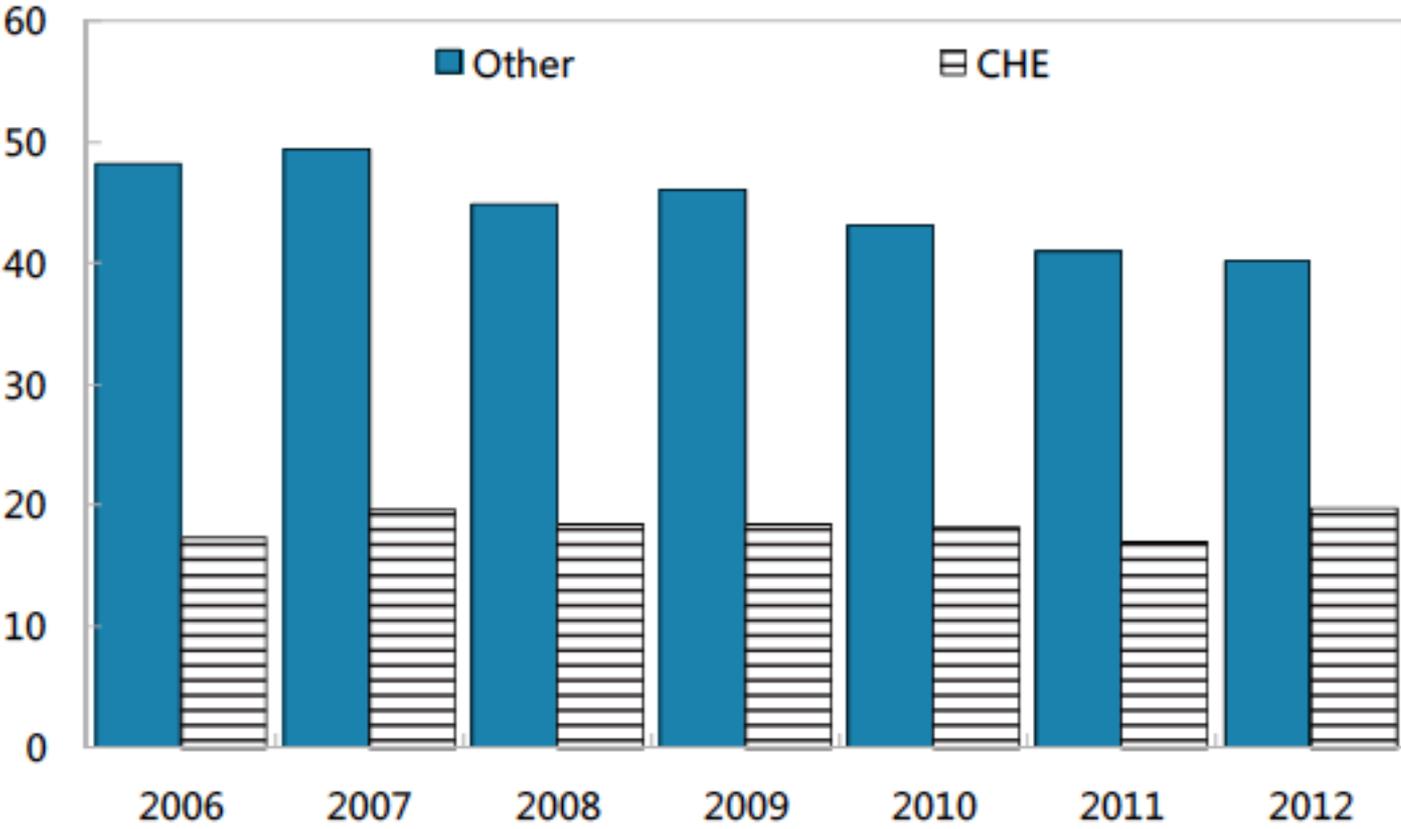
2Q13

Risk density



IMF: Swiss G-SIBs have among the lowest ratios of RWAs/Total Assets within G-SIBs

Risk Weighted Assets to Total Assets (Percent)

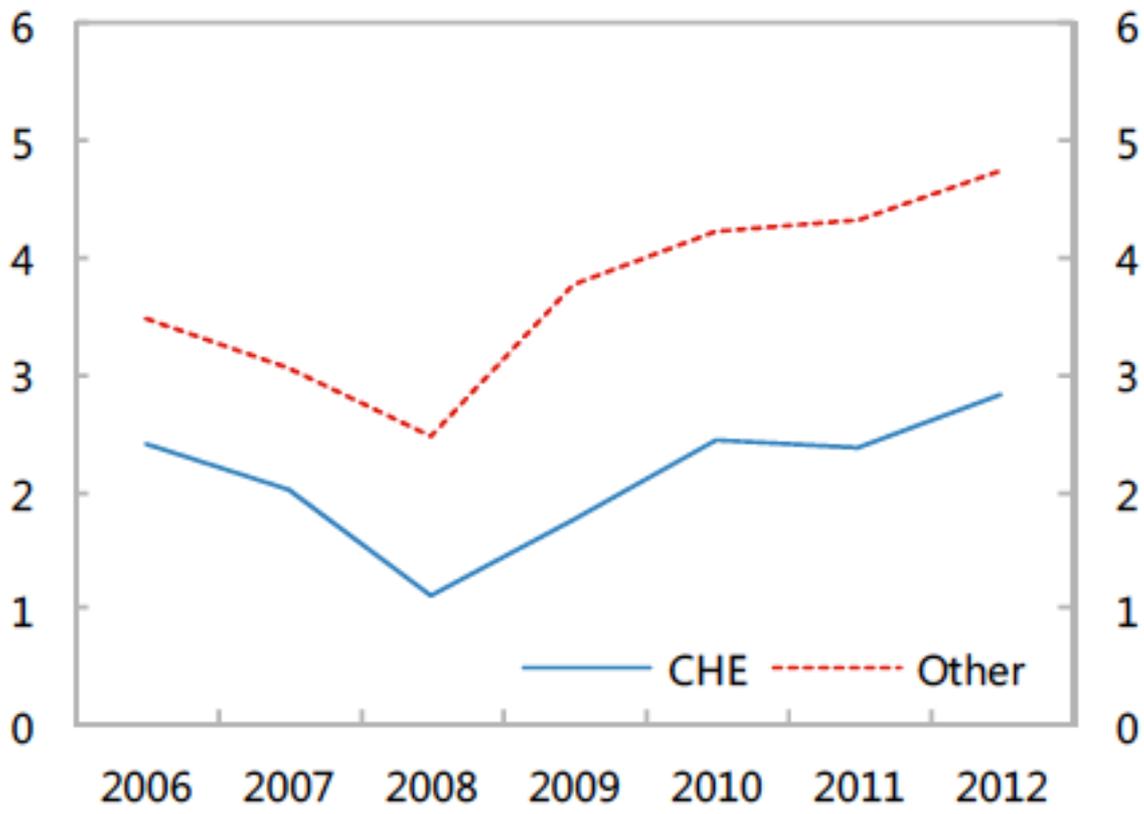


Sources: Bankscope

IMF Country Report No 13/129, May 2013, Switzerland: Selected Issues Paper

IMF: Swiss G-SIBs are still well below their peer average and below most of their peers – simple leverage ratio: tangible equity / total assets

Leverage Ratio
(Percent)



Sources: Bankscope

*IMF Country Report No 13/129, May 2013,
Switzerland: Selected Issues Paper*

Table 1: Capitalization Ratios for Global Systemically Important Banks

Basel III Capital: A Well Intended Illusion
T. Hoenig, FDIC, Speech at IADI, 9/4/13

Data as of Fourth Quarter 2012

Institution ¹	Basel Risk-Based Capital			Tangible Capital				Components of Tangible Capital				Price-to-Book	
	Tier 1 Capital ² (\$Billions)	Risk-Weighted Assets (\$Billions)	Tier 1 Capital Ratio ³ (Percent)	GAAP		IFRS ESTIMATE ⁴		Total Equity ⁵ (\$Billions)	Goodwill (\$Billions)	Other Intangibles (\$Billions)	Deferred Tax Assets (\$Billions)	Price-to-Book Ratio ⁷ (Percent)	Price-to-Adjusted Tangible Book Ratio ⁷ (Percent)
				Total Assets (\$Billions)	Leverage Ratio ⁶ (Percent)	Total Assets (\$Billions)	Leverage Ratio ⁶ (Percent)						
U.S. G-SIBs													
Bank of America	155	1,206	12.89	2,212	5.79	3,540	3.55	237	70	13	33	0.57	1.22
Bank of New York Mellon	17	111	15.02	359	4.02	381	3.77	36	18	5	0	0.85	2.40
Citigroup	137	971	14.05	1,865	5.61	2,878	3.57	189	26	8	56	0.64	1.24
Goldman Sachs	67	400	16.75	939	7.07	1,707	3.87	76	4	1	5	0.88	1.03
JPMorgan Chase	160	1,270	12.59	2,359	5.89	3,947	3.48	204	48	10	11	0.86	1.33
Morgan Stanley	54	307	17.72	781	5.79	1,749	2.55	62	7	4	8	0.62	0.89
State Street	14	72	19.13	222	5.78	228	5.64	21	6	3	0	1.06	1.82
Wells Fargo	127	1,077	11.75	1,423	8.13	1,485	7.78	158	26	20	0	1.24	1.82
Average U.S. G-SIBs	730	5,415	13.49	10,160	6.17	15,914	3.88	983	204	63	113	0.85	1.28
Foreign G-SIBs													
Banco Santander (Spain)	80	716	11.17			1,631	2.97	108	32	4	25	0.84	2.35
Bank of China Limited (China)	121	1,149	10.54			2,009	6.53	136	0	2	3	0.94	0.98
Barclays (UK)	82	611	13.35			2,354	3.08	89	8	4	5	0.60	0.75
BBVA (Spain)	46	423	10.77			819	4.04	56	9	3	13	0.91	1.67
BNP Paribas (France)	97	709	13.63			2,451	3.47	111	14	3	10	0.67	0.92
BPCE Group (France)	60	491	12.17			1,474	4.27	70	5	2	0	...	...
Crédit Agricole Group (France)	79	617	12.85			2,580	2.72	98	19	2	7	...	...
Deutsche Bank (Germany)*	65	458	14.19			2,734	1.47	72	20	0	12	0.50	0.92
HSBC (UK)	151	1,124	13.44			2,693	5.16	175	21	8	8	1.13	1.44
ING Bank (Netherlands)	51	358	14.35			1,074	4.11	48	2	1	2	...	...
Nordea bank (Sweden)	31	276	11.17			870	3.65	36	3	1	0	1.03	1.18
Royal Bank of Scotland (UK)	90	726	12.43			2,073	3.72	103	0	21	5	0.53	0.71
Société Générale (France)	52	416	12.50			1,607	2.84	61	7	2	7	0.48	0.66
Standard Chartered (UK)	41	302	13.45			637	5.77	44	7	1	1	1.36	1.65
UBS (Switzerland)	44	205	21.29			1,343	2.52	49	6	1	9	1.17	1.71
UniCredit (Italy)	63	549	11.44			1,191	5.57	85	15	5	n/a	0.34	0.46
Average Foreign IFRS	1,151	9,129	12.61			27,540	3.70	1,342	168	61	106	0.84	0.98
Other Foreign G-SIBs													
Credit Suisse (Switzerland; CHF, U.S. GAAP)	37	239	15.56	986	3.69			45	9	0	n/a	...	...
Mitsubishi UFJ FG (Japan; JPY, Local GAAP)	136	1,114	12.22	2,672	5.07			151	0	13	4	0.68	0.79
Mizuho FG (Japan; JPY, Local GAAP)	81	633	12.75	2,064	3.66			86	0	6	5	0.85	1.06
Sumitomo Mitsui FG (Japan; JPY, Local GAAP)	84	654	12.81	1,692	4.76			95	0	10	5	0.81	1.06
Average All Foreign G-SIBs	1,489	11,769	12.65	34,954	3.85			1,719	177	90	121	0.83	1.02
Average U.S. BHC by Size Group⁸													
U.S. G-SIBs	730	5,415	13.49	10,160	6.17	15,914	3.88	983	204	63	113	0.85	1.28
Ten Largest Non-G-SIBs ⁹	171	1,499	11.41	1,913	8.21	1,927	8.15	226	57	12	6	0.94	1.59
Ten Largest Less Than \$50 Billion ¹⁰	24	191	12.85	293	7.91	293	7.91	33	8	1	2	1.07	1.51
Ten Largest Less Than \$1 Billion ¹⁰	1	7	13.40	10	8.67	10	8.67	1	0	0	0	...	...

Source: Bankscope (Data updated as of April 4, 2013), Bloomberg LP, Federal Reserve Y-9C Reports, International Monetary Fund, and 10-Q reports.

RWA for residential mortgages – Standardised Approach (CAO, App. 3)

3.	Positions in directly or indirectly secured mortgage loans	Risk Weights	
3.1	Residential properties in Switzerland and abroad, up to two-thirds of the current market value.	Basel I: 50%	35%
3.2.	Residential properties in Switzerland and abroad, above two thirds and up to 80% of the current market value.		75%
3.3.	Residential properties in Switzerland and abroad, above 80 % of the current market value.		100%
3.4.	Other properties and objects		100%

Ø RWA for residential mortgages – A-IRB UBS 2012

in %	Internal UBS rating					Regulatory net credit exposure-weighted average risk weight	
	0/1	Investment grade		Sub-investment grade		31.12.12	31.12.11
Internal UBS rating		2/3	4/5	6-8	9-13		
Regulatory net credit exposure-weighted average risk weight							
Corporates	6	10	46	43	72	31	35
Sovereigns	1	20	94	49	103	8	14
Banks	11	12	26	42	159	17	20
Retail							
Residential mortgages		3	7	17	48	10	7
Lombard lending		3	10	18	30	5	4
Other retail		3	4	48	33	34	42
Average 31.12.12	2	8	17	32	64	16	
Average 31.12.11	2	9	20	37	77		19

UBS Annual Report 2012, p. 195

Ø RWA for residential mortgages – A-IRB Credit Suisse 2012

Gross credit exposures by regulatory approach and risk-weighted assets

end of	PD/LGD		A-IRB	Stan- dardized	Total	Risk- weighted assets
	Pre- substitution	Post- substitution	SRW			
2012 (CHF million)						
Sovereigns	64,930	63,378	–	6,165	60,543	4,831
Other institutions	5,737	5,431	–	433	5,864	1,387
Banks	46,403	50,822	23	1,122	51,987	14,382
Corporates	177,115	174,564	1,014	505	176,073	76,373
Total institutional credit exposures	294,185	294,185	1,037	8,225	303,447	96,973
Residential mortgage	96,425	96,425	–	10.5%	96,425	10,148
Qualifying revolving retail	156	156	–	–	156	260
Other retail	57,768	57,768	–	8	57,776	9,823
Total retail credit exposures	154,349	154,349	–	8	154,357	20,231
Other exposures	–	–	–	14,164	14,164	7,876
Total gross credit exposures	448,534	448,534	1,037	22,397	471,968	125,080

Credit Suisse Basel II Pillar 3 – disclosures 2012, p. 9

CAO, Appendix 2

No.	Position categories (SA-BIS) with the option to use external ratings	Rating categories								Fixed
		1	2	3	4	5	6	7	Unrated	
7.	Corporates	20%	20%	50%	100%	100%	150%	150%	100%	-

CAO, Appendix 3

1.	Individuals and small businesses (retail positions)	
1.1.	Retail positions, if the total position value as per art. 49 para. 1, excluding residential mortgage-backed security, does not exceed CHF 1.5m or 1% of all retail positions to a single counterparty.	75%
1.2.	Other retail positions	100%

Ø RWA for Corporates & SME – A-IRB UBS 2012

in %	Internal UBS rating					Regulatory net credit exposure-weighted average risk weight	
	0/1	2/3	4/5	6-8	9-13	31.12.12	31.12.11
Internal UBS rating							
Regulatory net credit exposure-weighted average risk weight							
Corporates	6	10	46	43	72	31	35
Sovereigns	1	20	94	49	103	8	14
Banks	11	12	26	42	159	17	20
Retail							
Residential mortgages		3	7	17	48	10	7
Lombard lending		3	10	18	30	5	4
Other retail		3	4	48	33	34	42
Average 31.12.12	2	8	17	32	64	16	
Average 31.12.11	2	9	20	37	77		19

Ø RWA for Corporates & SME – A-IRB Credit Suisse 2012

Gross credit exposures by regulatory approach and risk-weighted assets

end of	PD/LGD		A-IRB	Standardized	Risk-weighted assets	
	Pre-substitution	Post-substitution	SRW		Total	
2012 (CHF million)						
Sovereigns	64,930	63,378	–	6,165	60,543	4,831
Other institutions	5,737	5,431	–	433	5,864	1,387
Banks	46,403	50,802	23	1,122	51,967	14,382
Corporates	177,116	174,554	1,014	506	176,073	76,373
Total institutional credit exposures	294,185	294,185	1,037	8,225	303,447	96,973
Residential mortgage	96,425	96,425	–	–	96,425	10,148
Qualifying revolving retail	156	156	–	–	156	260
Other retail	57,768	57,768	–	8	57,776	9,823
Total retail credit exposures	154,349	154,349	–	8	154,357	20,231
Other exposures	–	–	–	14,164	14,164	7,876
Total gross credit exposures	448,534	448,534	1,037	22,397	471,968	125,080

43%

17%

Die Selbstregulierung der Grossbanken hat versagt

Das Konzept der Berechnung risikogewichteter Aktiven mittels bankeigener Modelle der UBS und der CS steht zunehmend in der Kritik

Martin Lanz, NZZ vom 25.5.2013, S. 31

Weitergeleiteter Artikel aus der «Neuen Zürcher Zeitung» vom 21.06.2013, Seite 21:

Die Grossbanken und des Kaisers neue Kleider

Die Credit Suisse und die UBS können sich nicht mehr hinter ihren vergleichsweise hohen risikogewichteten Kapitalquoten verstecken. Einfache Masse sind gefragt. Von Martin Lanz

Measures to correct too low RWAs – Bottom-up approach

- **Enhanced disclosure**
 - Internal models: **parallel calculation** based on standardised approach (Art. 47 CAO, FINMA) and **publish** (SNB recom. in FSR 2012 & 2013)
 - **Publish quantitative assessment of total risk**, e.g. CS Economic Risk Capital (SNB recom. in FSR 2013)
 - Increase **transparency of RWA-reduction**: break-down by cause, esp. proportion attributable to **model adjustments** (SNB recom. FSR 2013)
- **Multipliers on internal models** (as on VaR for market risk)
 - FINMA-Multiplier for IRB residential mortgages (incremental from 2013)
 - Multipliers for all internal models
- **Permanent floor** for internal models based on **standardised approach**
 - e.g. 30% for residential mortgages
- **Countercyclical buffer**: multiplier for IRB banks (A-IRB \approx 3)
 - **Urgent**: stop additional competitive distortion / maximise macro impact

Calibration of LR under status quo: in normal case slightly below RW-requirements and thus no constraint for banks

- If RWA and B/S change in same proportions: LR should keep same distance below RW-requirements
- LR with **buffer & progressive component** as in RWA-Ratio
 - ✓ Principle of higher LR for Swiss G-SIBs correct (**no 3% flat rate** as in Basel III)
 - but diluted by design

Problems of CH-LR vs. Basel III LR

- ⊗ **Definition of capital**: includes **all CoCos** for LR in same proportion as RWA-Ratio (35% of buffer & 100% of progressive component) → **wider definition than Basel III** test LR (=Tier 1); low-trigger CoCos @5% CET1 not eligible as Tier 1 → only gone concern ~ reserve for shut-down & disposal of nuclear power plants
- ⊗ **Low Assumption for Ratio RWAs / Total Exposure** → high leverage
 - CH-TBTF Expert Commission: 400 / 1500 bn. = 27%
 - Basel III Minimum: 3% LR / 6% Minimum Tier 1 RWA-Ratio = 50%
 - Art. 134 CAO: **Leverage Ratio fixed at 24% of RWA-Ratios**

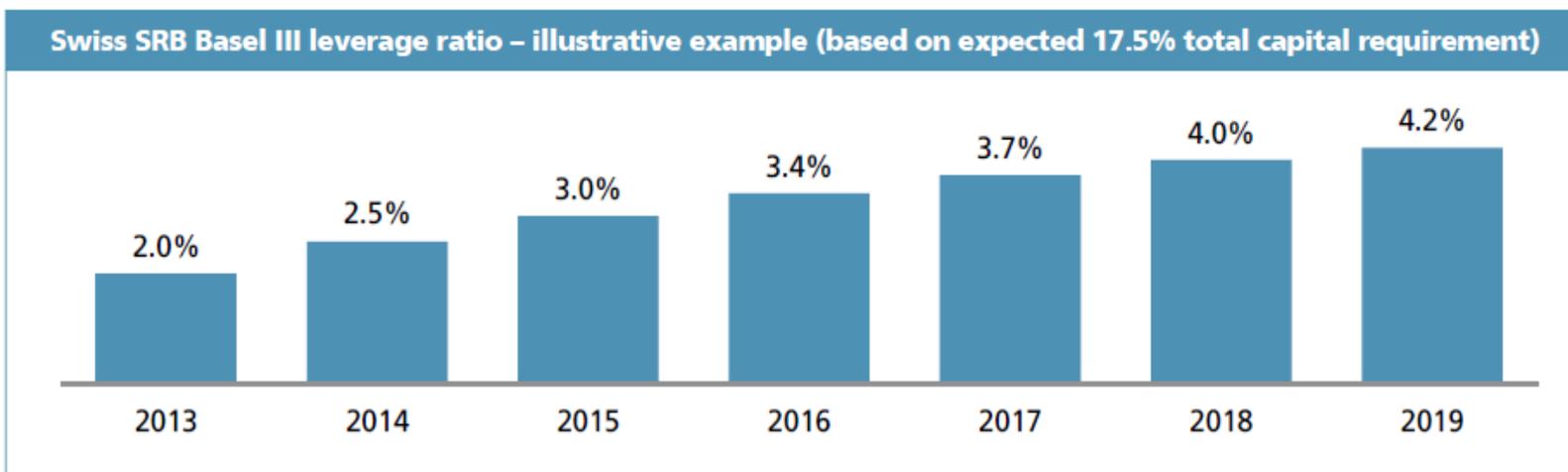
Swiss SRB Basel III leverage ratio

UBS's phase-in Swiss SRB Basel III leverage ratio above minimum requirements

- **UBS's phase-in Swiss SRB Basel III leverage ratio of 3.9% on 30.6.13¹**

$$\frac{\text{Total capital (Phase-in CET1 + loss absorbing capital)}}{\text{Total exposure (Total IFRS assets + adjustments)}} = \frac{\text{CHF 44.9 billion}}{\text{CHF 1,141 billion}} = 3.9\%$$

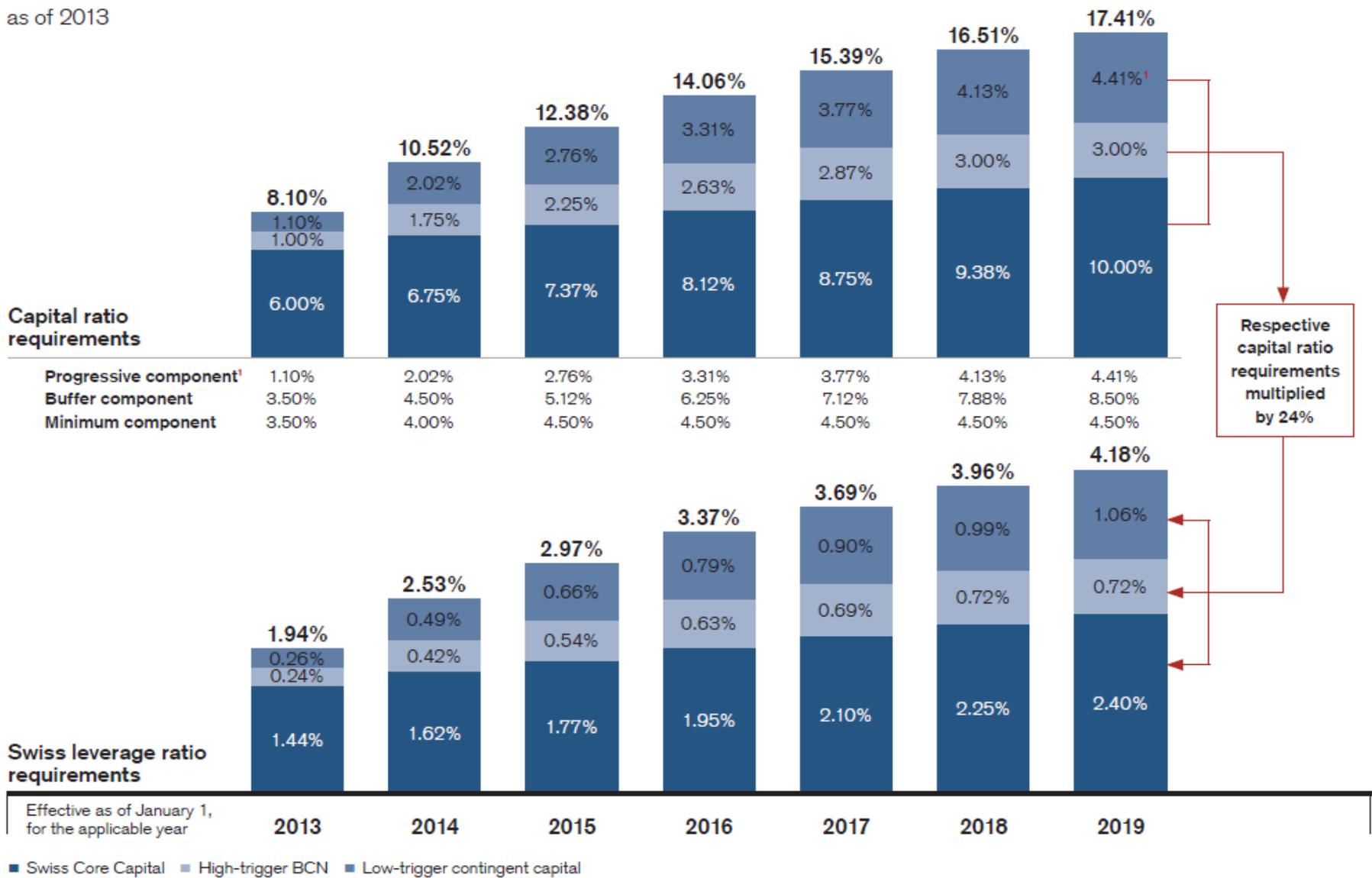
- The minimum leverage ratio is defined as the total capital requirements x 24% (e.g. expected 17.5% total capital requirement x 24% = 4.2%)



Refer to slide 36 for details about adjusted numbers, Basel III numbers and FX rates in this presentation
1 For information on the leverage ratio refer to pages 75-76 of the 2Q13 financial report

Swiss capital and leverage ratio phase-in requirements for Credit Suisse

as of 2013



¹ The progressive component requirement is dependent on our size (leverage ratio exposure) and the market share of our domestic systemically relevant business and is subject to potential capital rebates that may be granted by FINMA. Using 2012 year-end data, we estimate that the 2019 progressive component will be further reduced in 2014.

4.1 RESILIENCE OF THE BIG BANKS

When assessing the big banks' resilience, the SNB focuses on loss-absorbing capital in a "going concern" perspective.⁴ This loss-absorbing capital comprises Common Equity Tier 1 (CET1), using the definition of the fully implemented Basel III framework, plus high-trigger contingent capital instruments as set out in the Swiss "too big to fail" regulations.

Leverage ratio low

In terms of the leverage ratio – the unweighted capital ratio – Credit Suisse has improved significantly, and UBS's leverage ratio has increased moderately. In the first quarter of 2013, leverage ratios, calculated as loss-absorbing capital relative to total exposure,⁵ came to 2.3% at both banks. From 2019, these leverage ratios are required to be at least 3.1% under the provisions of the "too big to fail" regulations.⁶ In terms of total capital, the leverage ratio

the SNB still considers current leverage ratios at the Swiss big banks to be low. For instance, during the recent crisis, UBS suffered losses amounting to around 2% of its total exposure.¹¹ In addition, a number of comparative studies imply that, in terms of leverage ratios, the two big banks are currently below the international average.¹² These

Measures to correct too low RWAs – Top-down approach

- **Leverage Ratio to be given equal weight to RWA-Ratios (Haldane)**
 - Credible back-stop against RWA-erosion and model manipulation
 - Ideally LR and RWA-Ratios should constantly be in competition
 - Not abolish RWA-requirements; LR alone would encourage excessive risk taking
 - RWA-Ratio alone is not robust
- **Capital surcharge for G-SIBs not to be limited to RWA-Ratios**
 - Flat rate LR for all banks conceptually wrong ≠ one-size-fits-all
 - Historic reasons of BCBS no longer valid
 - LR was highly controversial in Basel III discussions (2010)
 - Capital surcharge for G-SIBs was a difficult compromise (2011)

Align Leverage Ratio with RW-Ratios in Capital Adequacy Ordinance

Chapter 4 Capital Adequacy Requirements with No Risk-Weighting (Leverage Ratio)

Art. 133 Principle

¹ Systemically important banks must fulfill particular capital adequacy requirements relative to their total commitment.

² The capital adequacy requirements consist of a basic requirement, a capital buffer and a progressive component. Subject to art. 134, they are informed by the provisions of Chapter 3 in regard to risk-weighted capital.

Art. 134 Calculation

50%

The non-risk-weighted capital adequacy requirements calculated based on the total commitment amounts to **24%** of the percentages of:

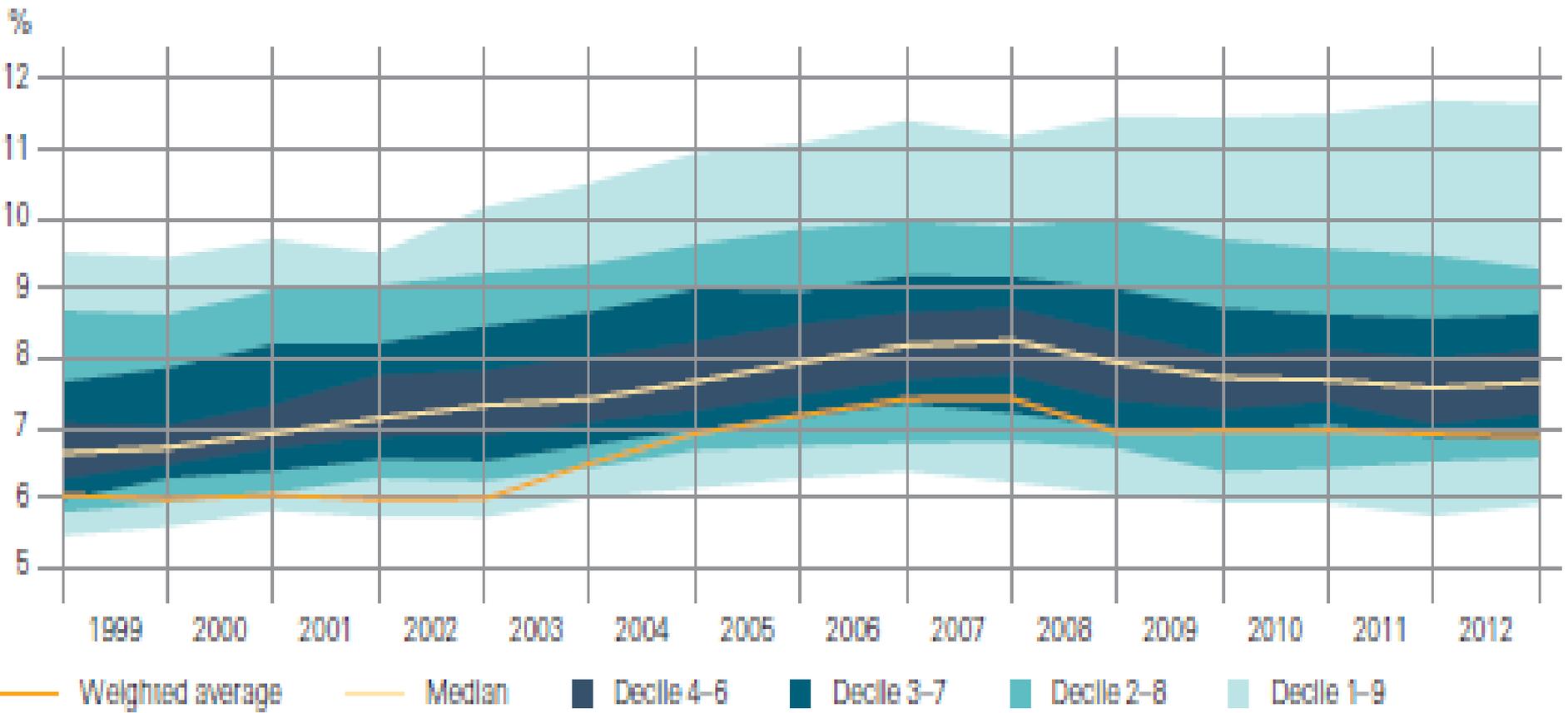
- the basic requirements as per art. 128 para. 1;
- the capital buffer as per art. 129 paras. 1 and 2; and
- the progression rate as per art. 131 para. 1.

CET1:	5%	} T1
CoCos @7:	1.5%	
CoCos @5:	2.5%	

CAPITAL TO ASSET RATIOS

Distribution of Tier 1 capital to total asset ratios of **domestically focused commercial banks**

Chart 16



Sources: FINMA, SNB

U.S. Weighs Doubling Leverage Standard for Biggest Banks

Bloomberg News

By Yalman Onaran - Jun 21, 2013 10:28 PM GMT+0200

U.S. regulators are considering doubling a minimum capital requirement for the largest banks, which could force some of them to halt dividend payments.

The standard would increase the amount of capital the lenders must hold to 6 percent of total assets, regardless of their risk, according to four people with knowledge of the talks. That's twice the level set by global banking supervisors.

Hoenig Rule

FDIC Vice Chairman **Thomas Hoenig** has called for scrapping risk-based rules entirely in favor of a 10 percent leverage ratio, calculated to include even more off-balance-sheet assets than allowed under Basel and define capital more narrowly. To reach Hoenig's requirements, the three largest U.S. banks -- JPMorgan, Bank of America and **Citigroup (C)** -- would have to stop distributing dividends for about five years, according to FDIC data and analysts' earnings expectations compiled by Bloomberg.

The Systemic Risk Council, an advisory group led by former FDIC Chairman **Sheila Bair**, has called for 8 percent. Bair fought for a global leverage ratio in Basel committee meetings when she led the U.S. agency.

For immediate release

July 9, 2013

Agencies Adopt Supplementary Leverage Ratio Notice of Proposed Rulemaking

The Federal Reserve Board, the Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency (OCC) on Tuesday proposed a rule to strengthen the leverage ratio standards for the largest, most systemically significant U.S. banking organizations.

Under the proposed rule, bank holding companies with more than \$700 billion in consolidated total assets or \$10 trillion in assets under custody (covered BHCs) would be required to maintain a tier 1 capital leverage buffer of at least 2 percent above the minimum supplementary leverage ratio requirement of 3 percent, for a total of 5 percent. Failure to exceed the 5 percent ratio would subject covered BHCs to restrictions on discretionary bonus payments and capital distributions. In addition to the leverage buffer for covered BHCs, the proposed rule would require insured depository institutions of covered BHCs to meet a 6 percent supplementary leverage ratio to be considered "well capitalized" for prompt corrective action purposes. The proposed rule would currently apply to the eight largest, most systemically significant U.S. banking organizations.

Even more equity capital

THE BANKERS' NEW CLOTHES



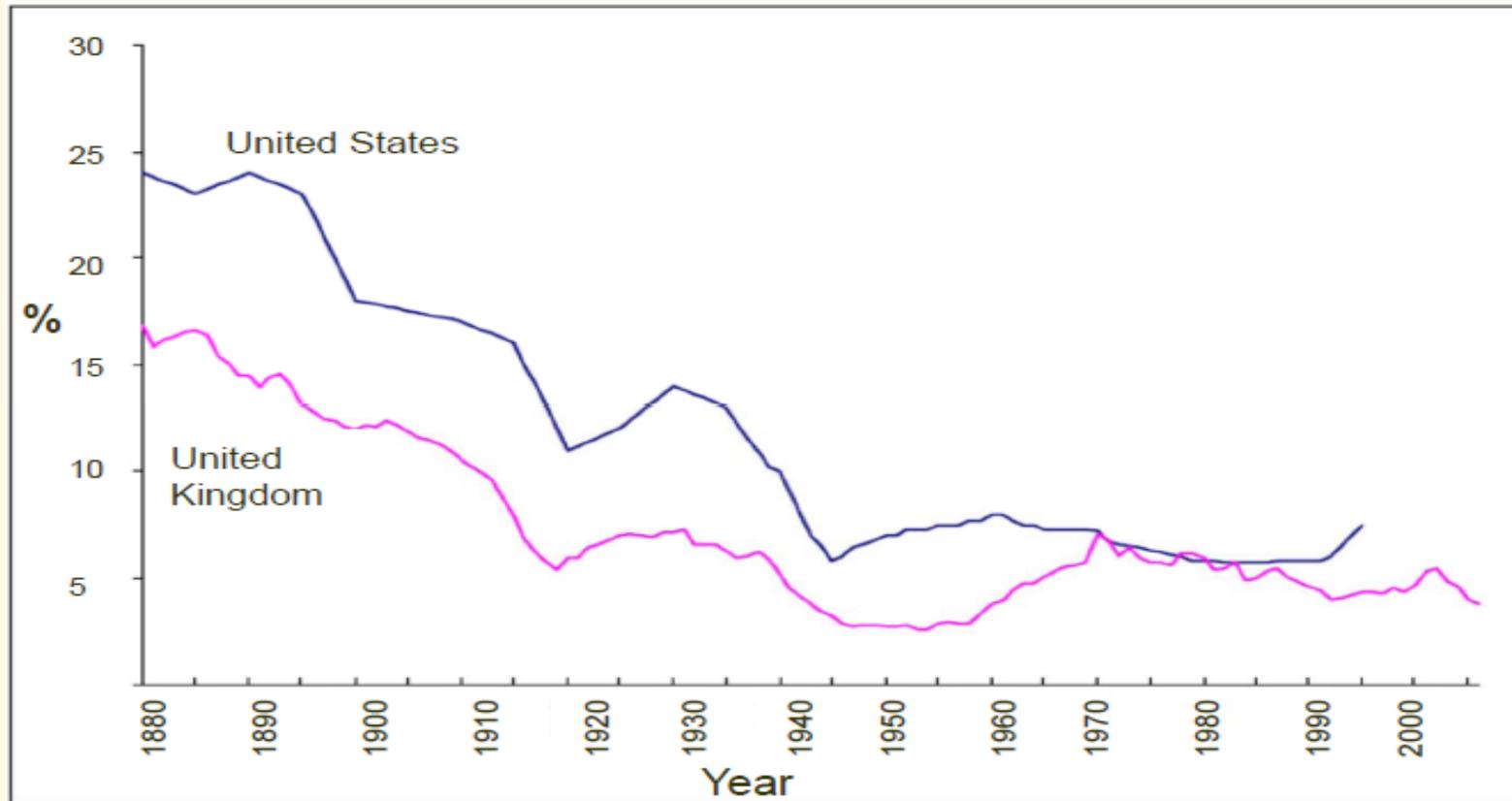
What's Wrong with Banking and What to Do about It

ANAT ADMATI &
MARTIN HELLWIG

Leverage Ratio of
20 – 30% CET1 for
biggest banks



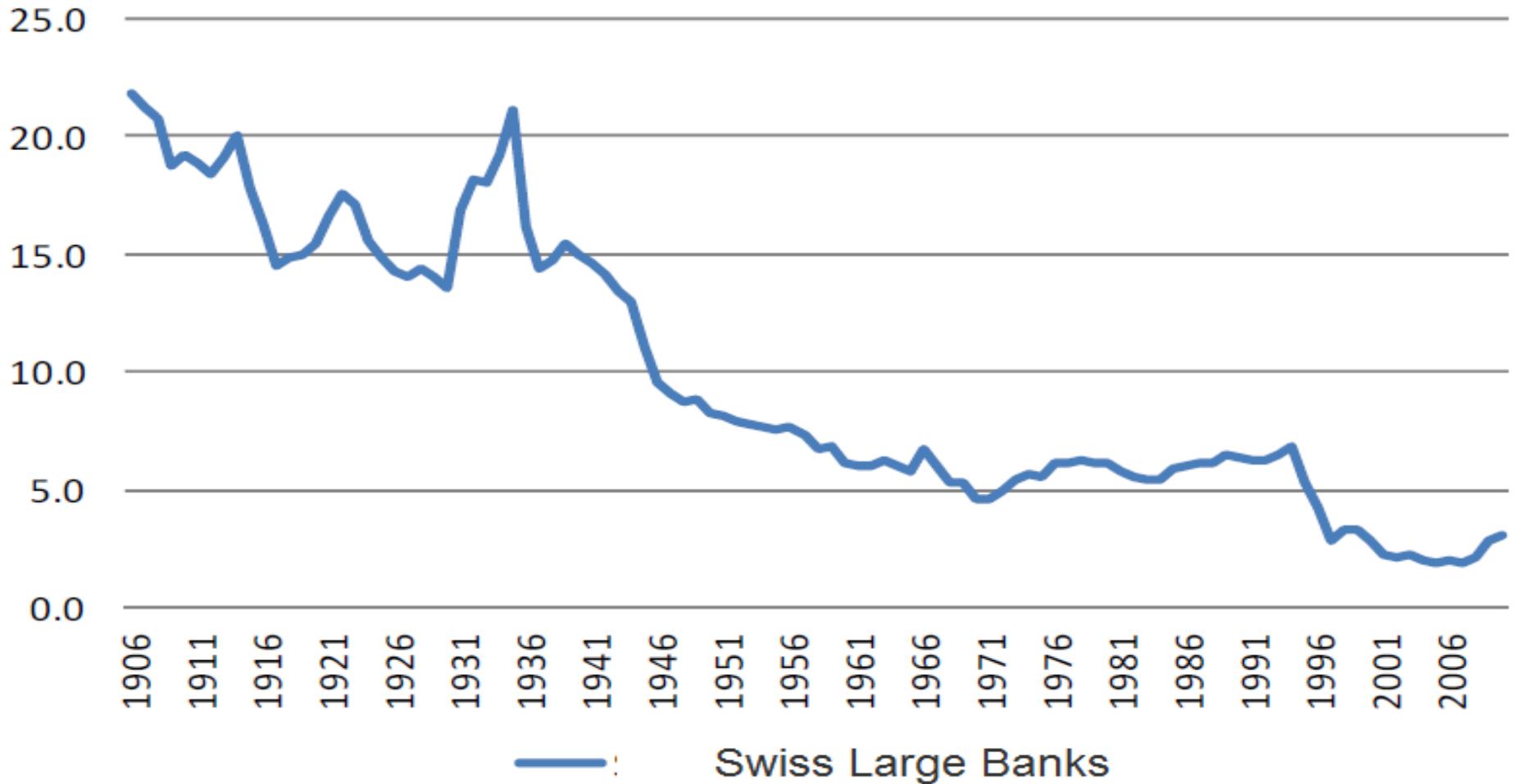
Capital levels – the right direction?



Common shares /total assets

Source: Haldane (2009) Bank of England

Historic ratios of capital to balance sheet of Swiss Large Banks



From 1995 consolidated data (Source: Swiss National Bank)

Andrew Haldane: The dog and the frisbee – less may be more

- **Decision-making** in a **complex** environment can benefit from the use of **simple decision rules of thumb**
- **Regulatory responses** to financial crises have been to **increase complexity** with a combination of **more risk management, more regulation** and **more regulators**
- Evolution of **Basel Accords**: higher **opacity** and **complexity** associated with increasingly **granular model-based risk-weighting** & dramatically increased **detailed rule writing** & scale and scope of **resources** dedicated to **regulation**
- **5 policy lessons for financial regulation**
 1. **Basel framework** to take more **sceptical** view of role and robustness of internal risk models in regulation → use **simplified standardised approaches** for CR & MR, on **broad asset class basis**
 2. **Leverage Ratio** to be placed on **equal footing with risk-weighted capital ratios**
 3. **Financial supervision** less rules-focussed and **more judgment based** → more **experienced regulators** working to **smaller, less detailed rulebook** & **simpler disclosure**
 4. Tackling **complexity** at the source → capital charge for complexity
 5. **Quantity based restrictions** such as Volcker rule or UK (Vickers) or EU (Liikaanen) proposals o.k., but risk being mired in implementation detail → cleaner solutions

Radical U-turn of regulatory community from path followed for 50 years, but less may be more

<http://www.bankofengland.co.uk/publications/Documents/speeches/2012/speech596.pdf>

- **2012 BCBS mandated Task Force on Simplicity and Complexity:** Review Basel capital framework to identify opportunities to **remove undue complexity** and **improve comparability of its outcomes**. Acknowledgement that framework has steadily grown over time as risk coverage has been expanded and more sophisticated measurement technologies have been introduced.
- Paper discusses **reasons** behind evolution of current framework and outlines potential **benefits and costs** that arise from a more risk sensitive methodology. Discusses **ideas** that could possibly be explored to further reform the framework with the **objective** that it continues to strike an appropriate **balance** between the **complementary goals of risk sensitivity, simplicity and comparability**.
- **No decision yet to pursue any of the ideas** presented: seek comments and feedback from interested stakeholders.
- BCBS remains firmly of the view that **full, timely and consistent implementation of Basel III** remains fundamental to building a resilient financial system. Adopting Basel III reforms is itself an **important step in improving consistency of bank regulation globally**.

- Para. 29: Ideas should be assessed against the **primary aims of the capital adequacy framework**:
 - Sound **minimum standard** for **internationally active banks**, but also capable of application to **smaller institutions**
 - **Well understood measure** that is **comparable** across banks and over time
 - Support a reasonable **level playing field** between banks
 - Take into account **effects of capital requirements on banks’ risk-taking incentives**, e.g. when faced with regulatory constraints on their capital (and size of balance sheet), to seek higher-risk assets as a means of boosting expected returns
 - Promote **improved risk measurement and management** within banks

- Potential ideas to improve simplicity and comparability.....
- Explicitly recognising simplicity as an additional objective
- Enhancing disclosure.....
- Using additional metrics
- Ensuring the effectiveness of the leverage ratio
- Utilising added floors and benchmarks to mitigate the consequences of complexity.
- Reconsidering the linkage between internal and regulatory models.....
- Limiting national discretion and improving supervisory consistency.....
- Improving the accessibility of Basel Committee documents
- Addressing factors driving complexity in a more fundamental manner

- 4 decades of **international capital adequacy rules** as core of bank regulation → limited national discretion, but no level playing field → **maximum harmonisation** neither feasible nor desirable (≠ one-size-fits-all)
- **Minimum standards**: result of **bargaining and political compromises**
- **Started with simple rules**, but growing **complexity of financial sector** and **regulatory arbitrage** led to ever more **complex regulation**
- Regulation is **reactive**: response to past **failures and crises**
- **Trial and error / regulatory cycles**: cat and mouse game
- **Strong influence of banking lobby in boom times** to optimise capital and return on equity → **market-friendly** regulation → expansive use of **internal models** as an **incentive** for better **risk management & risk sensitivity** → resulted in **much less capital** for “sophisticated” G-SIBs
- Long domination by **industrialised world** and needs of its **global firms**

- **Financial crisis 2008 reversed trend and increased power of regulators**
 - Crisis of western banking system → shift of power to **emerging markets**
 - **Financial “innovations”** questioned: what is their use for society?
 - **Public bank bail-outs** made banks unpopular and politically weaker
 - **TBTF** acknowledged as fundamental problem → measures initiated, but **insufficient** (including Switzerland)
- **Back to basics and restrictions on use of internal models**
 - **Higher quantity and quality of capital**
 - **Leverage ratio** as simple back-stop to risk-weighted ratios
 - **Floors** based on standardised approaches (not decided yet)
- Trend to **utility banks** → lower returns & pay → unattractive investments

- Shift to the **shadow banking system**: chasing waterfalls
- The clock is turned back but the **cat and mouse game will continue. Tables will turn again** when the **next boom** comes or when politicians believe that **economic growth is promoted** by relaxing bank regulation.

„Capital is there to absorb losses from risks we understand and risks we may not understand. Evidence suggests that neither risk-takers nor their regulators fully understand the risks that banks sometimes take. That’s why banks need an appropriate level of loss absorbing equity.“

Robert Jenkins, Member of the Financial Policy Committee, Bank of England

Article published by The Independent on 27 April 2012



cutting through complexity

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