The Actuarial Profession
making financial sense of the future

Highlights of the Life Conference 2012

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There's more to Life than Solvency II

Solvency II myopia

- EMIR, MIFID
- Dodd-Frank
  Vickers
  Liikanen
- Basel III - CRDIV
- Recovery and Resolution Directive
- Wheatley review

Are insurers Systematically Important Financial Institutions?

"Financial institutions which typically demonstrate a high degree of leverage, liquidity or maturity mismatch or financial interconnectedness can transmit, and often amplify, shocks arising elsewhere in the financial system"

A regulatory inflexion point?

BANK FOR INTERNATIONAL SETTLEMENTS

“Importantly, introducing a phased timetable for the introduction of the LCR, and reaffirming that a bank's stock of liquid assets are usable in times of stress, will ensure that the new liquidity standard will in **no way hinder the ability of the global banking system to finance a recovery**"

Mervyn King, Chairman of the Group of Governors and Heads of Supervision and Governor of the Bank of England, January 2013

Central clearing and related issues

- Central clearing / EMIR
- CSA Discounting
- Other issues (including CVA)

Catalyst for change: September 2008

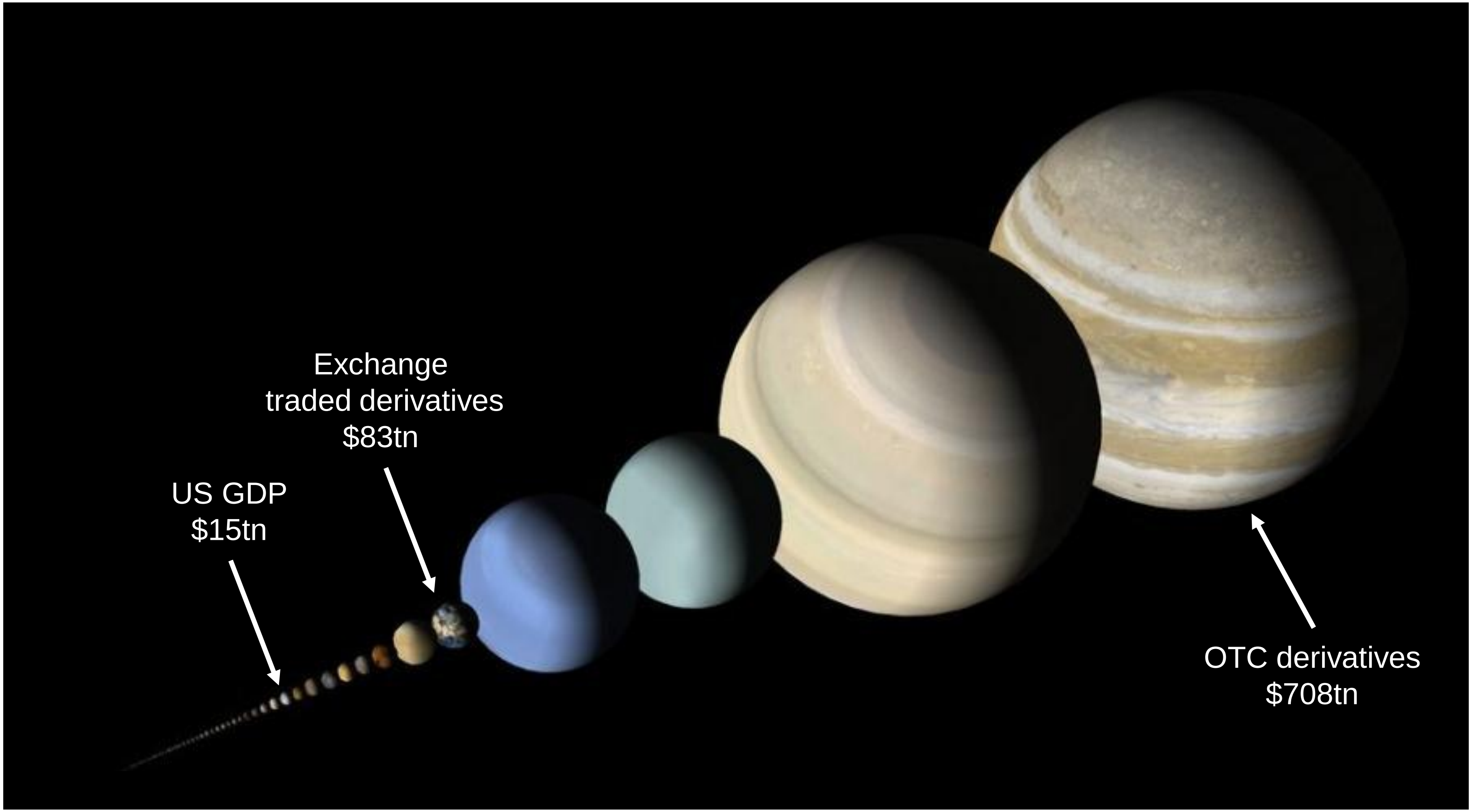
The line in the sand

G20 commitment

"All standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at latest. OTC derivatives contracts should be reported to trade repositories. Noncentrally cleared contracts should be subject to higher capital requirements."

Increase market transparency, reduce counterparty risk and systemic risk

The scale of the ambition



Sources: Insight (March 2012), and Bank for International Settlements (November 2011)

EMIR covers more than just mandatory clearing

Mandatory clearing

- Requirement to clear certain derivative transactions
- ***Pension business of Insurers has a temporary exemption***

Reporting

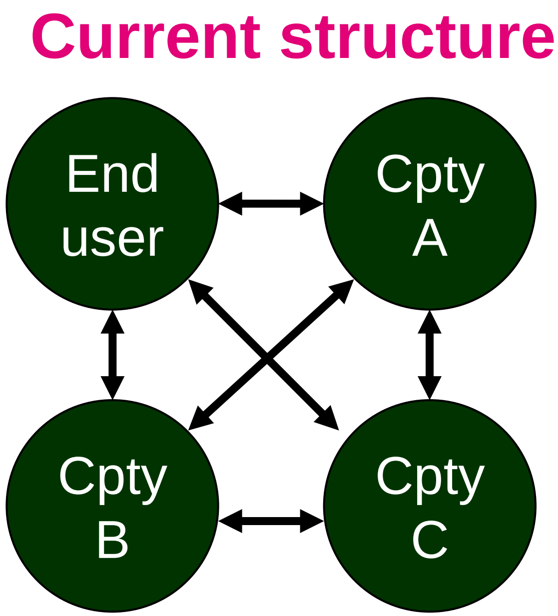
- Report all derivative contracts to Trade Repositories
- ***Applies to all Insurance business***

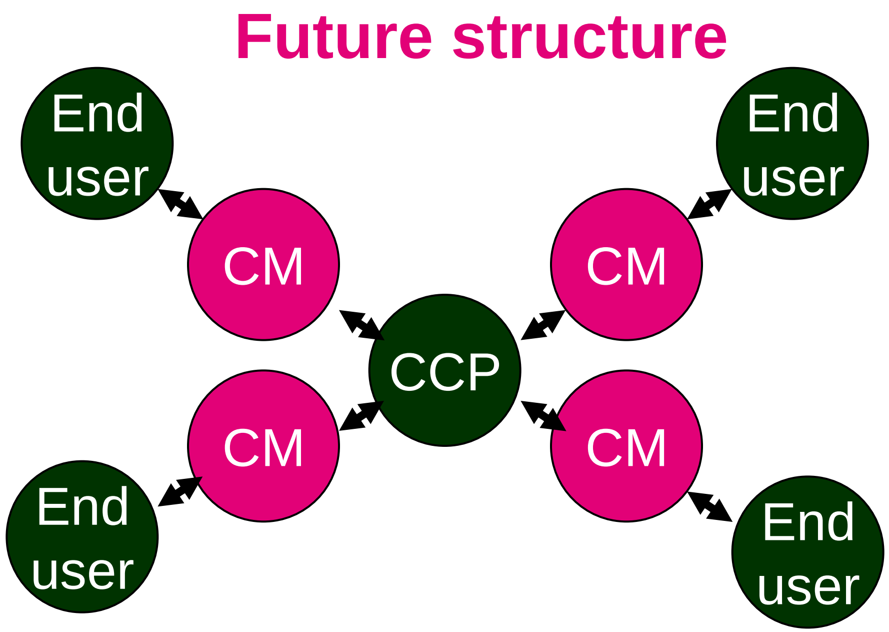
New non-cleared requirements

RULES NOT FINALISED !!

- Increased collateral requirements
- Likely requirement to post initial margin as well as variation margin
- Minimum operational standards
- ***Applies to all Insurance business***

Changes from OTC clearing





- Post trade risk management not execution
- End user still trades with chosen bank counterparty (Cpty)
- Transfer trade to clearing member who registers it at a CCP

Changes from OTC clearing contd.

	Current position	Expected centrally cleared	Expected non-cleared regime
Legal agreements	ISDA/CSA with each counterparty.	Need documentation with each counterparty and a clearing member bank (CM) to access clearing house (maybe >1 CM)	Need documentation with each counterparty
Initial margin	Typically none	Only cash or gilts	Flexible
Variation margin	Varies; typically cash and gilts	Only cash	Flexible
Default risk	Exposed to default of the counterparty you trade with	Directly affected only if your CM defaults Loss mitigated by initial margin Back-up CM recommended	Exposed to default of the counterparty you trade with Loss mitigated by initial margin

Value added?

Potential benefits	Potential disadvantages
Provides a range of **protection** in case of default	Likely to increase **cost** and reduce returns
Greater **regulatory transparency**, may help regulators detect systemic risk build up	Interest rate swaps likely to be cleared, but **inflation swaps not likely to be cleared initially** - **reduces possibility of netting margin** between the two
All trades going through a limited number of CM enables more opportunities to **net margin calls**	Only **cash variation margin** accepted by clearing houses - insurers and pension schemes generally don’t hold significant cash
Political need for regulators to be seen to take action	Less flexibility from a requirement to deliver **initial margin**

What next?

Implementation

- **New documentation**
- **Reporting and disclosure**
- Appointing clearing agents
- Developing appropriate client models with clearers

Cost

- **Increased costs (both direct and indirect)**
- Opportunity cost of increased and new collateral requirement
- Reduced flexibility
- Liquidity costs
- Splitting of netting sets

Strategy & Innovation

- **Asset allocation**
- Repo and collateral financing
- Synthesising assets
- Tactical, strategic and structural solutions

OTC Derivatives

- Central clearing / EMIR
- CSA Discounting
- Other issues (including CVA)

CSA discounting

Some terminology:

- SONIA is the Sterling Overnight Interbank Average rate
    - It tracks actual Sterling overnight funding rates experienced by market participants

- OIS is Overnight Index Swap
    - a fixed rate interest rate swap against a SONIA floating rate index

CSA discounting

- Traditional method of swap valuation: 6m Libor swap curve
    - LIBOR was previously recognised as bank funding rate

- Market moving to: CSA specific discounting
    - Discount rate for future cashflows based on collateral held / posted
    - Cost of collateral more closely aligned to OIS for 'clean' CSAs

CSA discounting

What does this mean?

- Under central clearing:
  - Discount future cashflows based on OIS rates

- Some CSAs allow wider collateral e.g. corporate bonds
  - Discount rate may remain linked to Libor

- SONIA curve below Libor curve so lower discount rate

Why does this matter?

Implications:

- Insurers swaps are typically ITM – increase to valuation
  - Re-coupon swaps to generate cash

- Solvency II currently uses a 6m Libor curve
  - Creates a basis exposure for insurers hedging using swaps valued off OIS

OTC Derivatives

- Central clearing / EMIR
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Basel III/CRD IV

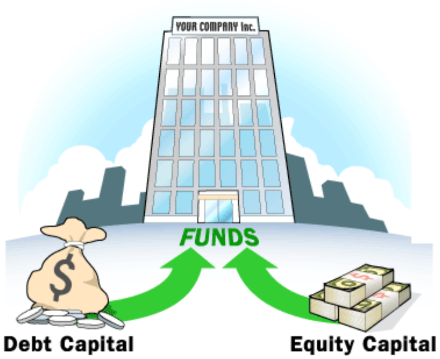
- Capital Requirement Directive IV sets up risk management framework for banks potentially impacting OTC derivatives
  - Likely to be delayed from target of 1 January 2013
  - CVA charges for OTC derivatives transactions
  - Impact of CVA charges likely to be minimal where initial margin is required in the new regime
  - Pension business of insurers may be exempt from CVA charges

CVA charging

- Credit Value Adjustment (CVA charge) takes account of counterparty risk in assessing cost of capital
- Default Value Adjustment (DVA charge) which is an allowance for the institution's own risk of default that can offset the CVA charge
- Bank should adjust trade price for CVA charge to reflect counterparty risk of client and arguably offset DVA charge to represent own counterparty risk
  - Cost of trading increases for more risky counterparty and reduces for less risky counterparty
  - Impact greatest for long maturity contracts (e.g. may be 1.5-2bp for 20 year interest rate swap)

Bank deleveraging

- Capital



- Liquidity

- Funding

- Leverage

"*Give me a lever long enough and a place to stand and I will move the entire earth*", Archimedes

Clouds on the banking horizon

Source: Nomura

The bank crisis-sovereign crisis

Negative feedback on banks

Losses on holdings of sovereign debt
Reduction in the value of collateral
Potential credit rating downgrades
Reduced value of explicit/implicit guarantees

Sovereigns weakening

Banks weakening

Negative feedback on sovereigns

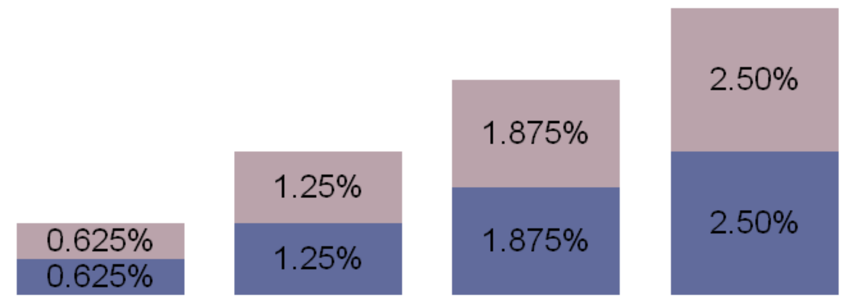
Deleveraging pressures detrimental to real activity
Bank failures reduce investor base
Increase in sovereign outlays, actual and potential liabilities

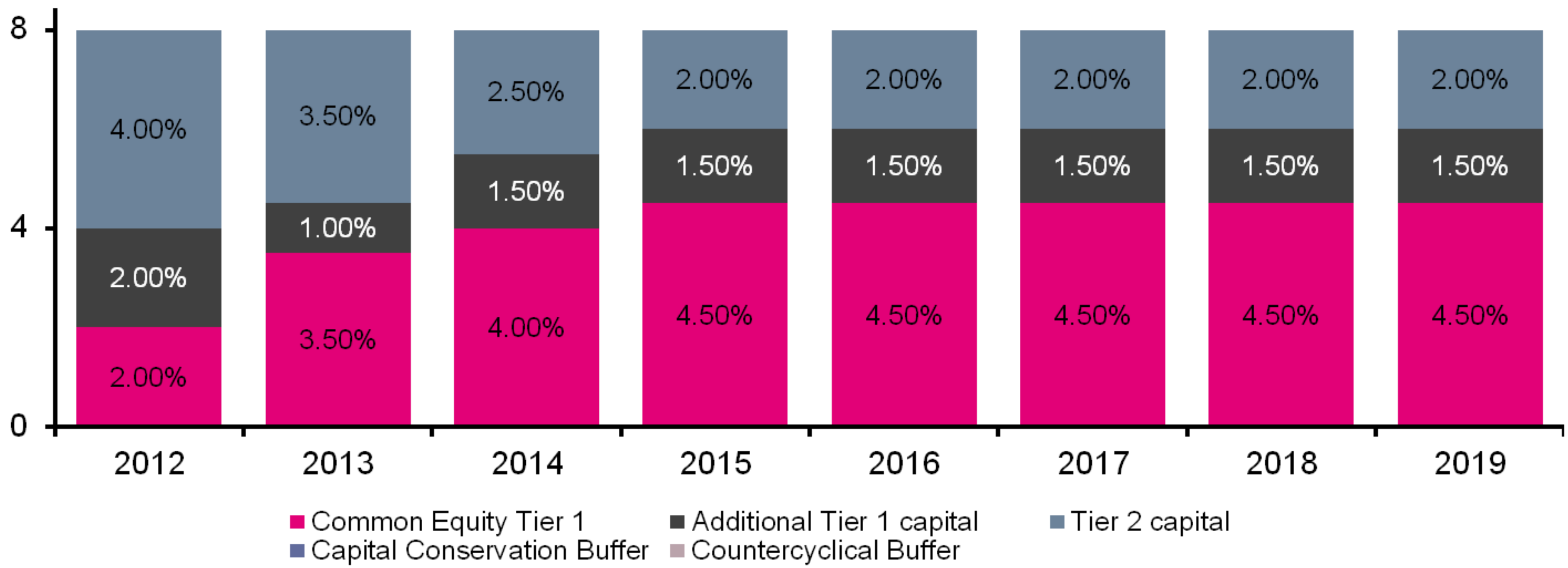
Source: OECD

Basel III capital changes

Plus:

- Loss-absorption e.g. Bail-in debt
- Capital deductions (e.g. pensions)
- G-SIFI surcharge

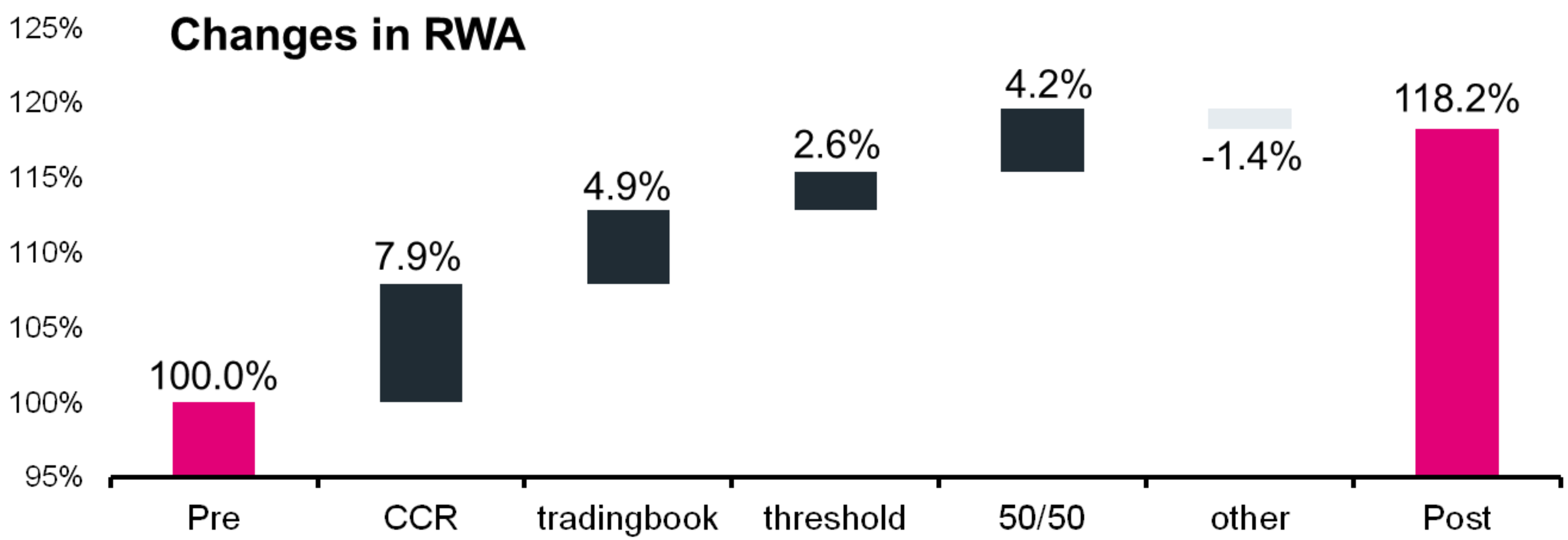




Source: Deutsche Bundesbank

Basel III – other key areas

- Liquidity and net stable funding ratios
- Limits on leverage ratios
- Increase to capital charges – including CVAs

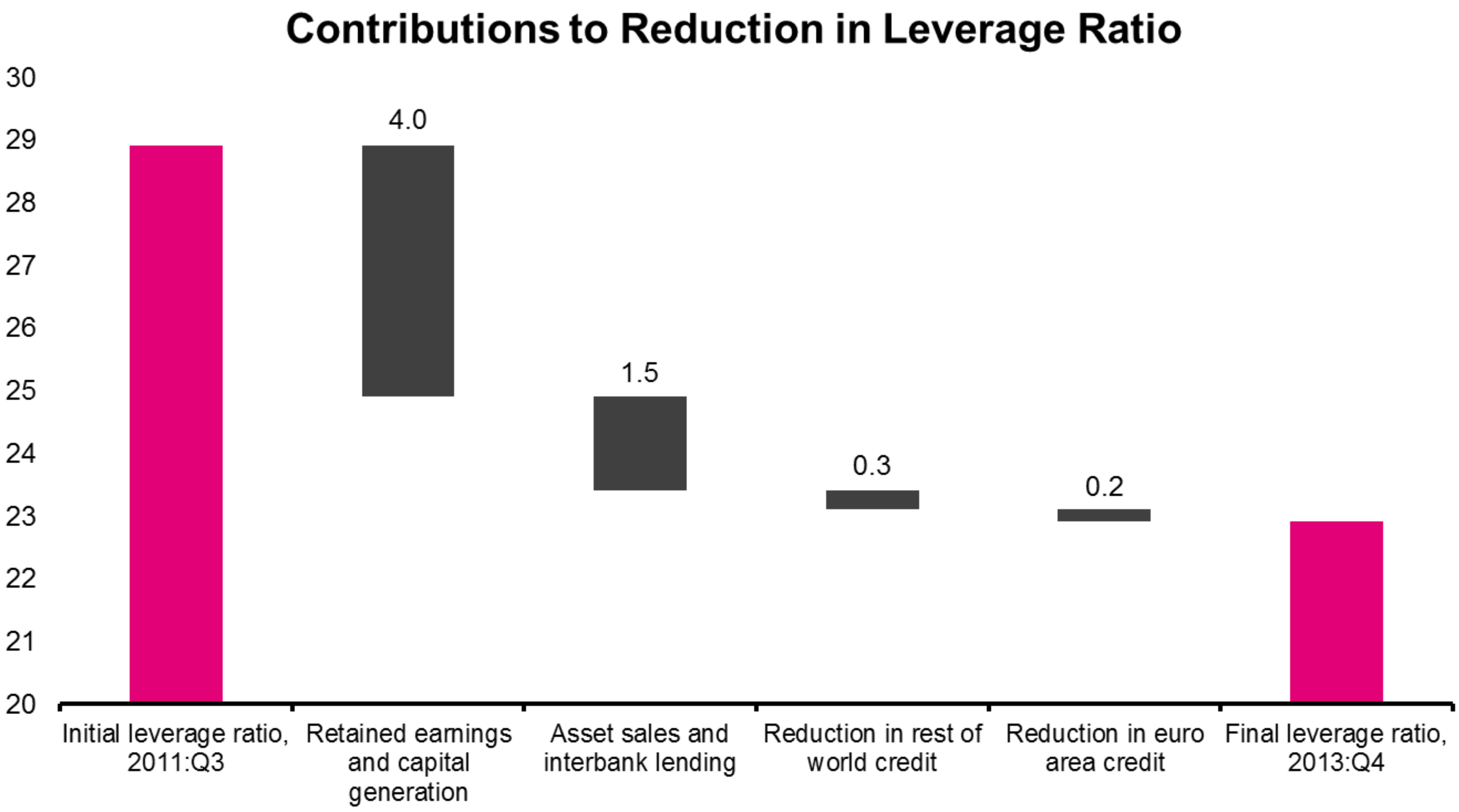


Source: BCBS

Banks responses

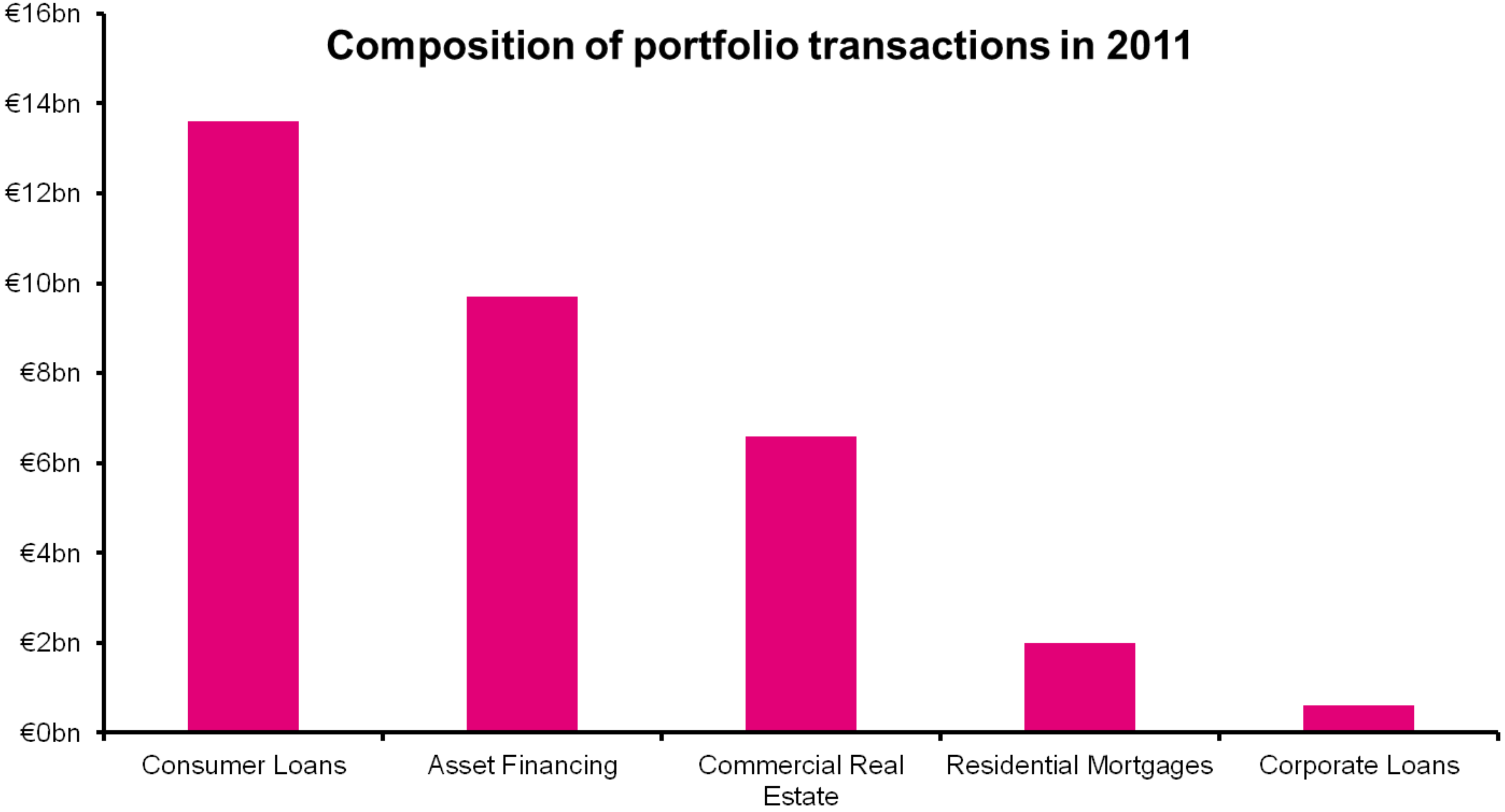
- Capital strengthening
- Change in funding mix
- Optimisation of capital methodologies
- Reduction in new origination of loans and run-off of certain sectors
- Outright sale of legacy loan positions

Sources of deleveraging



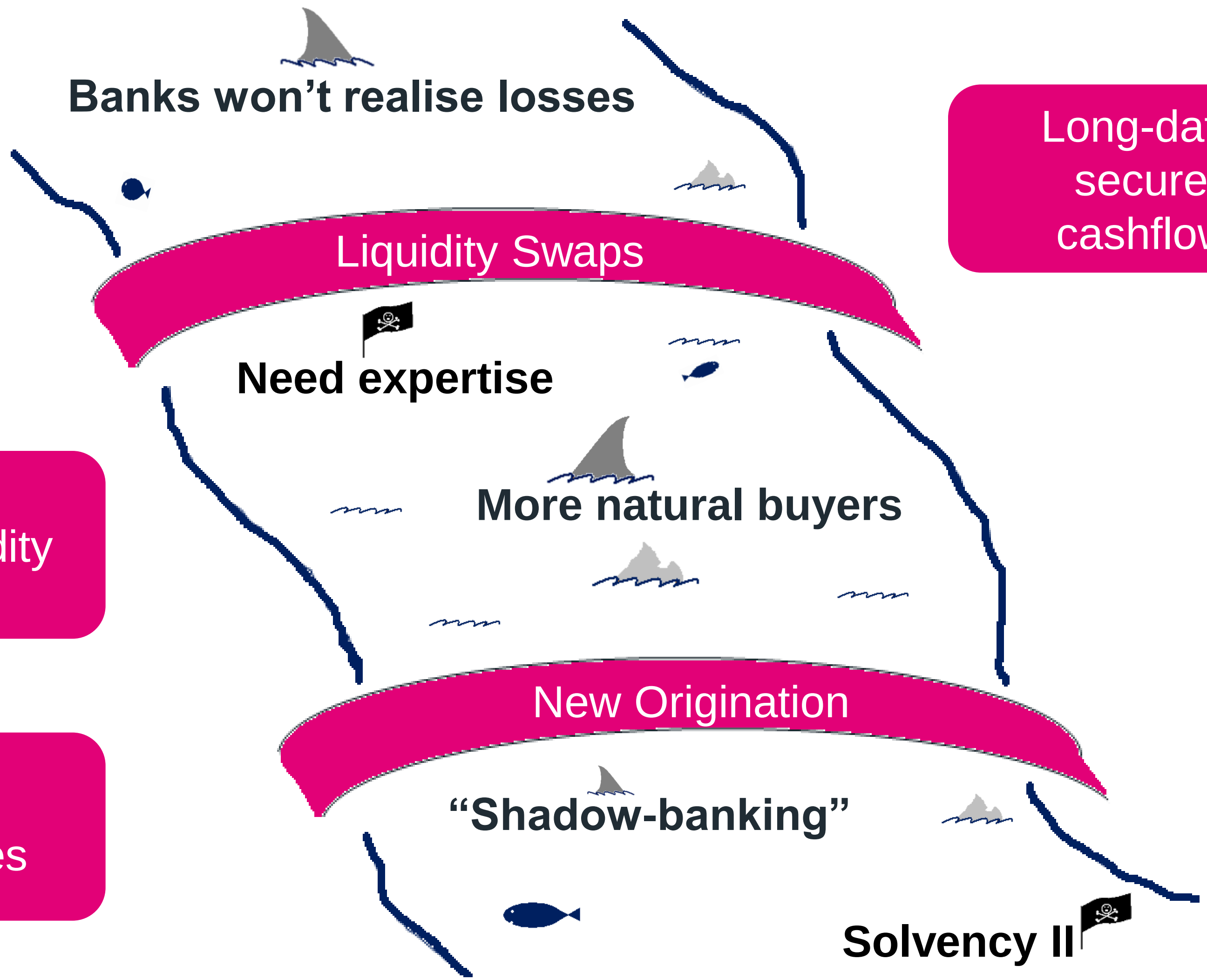
Source: IMF

Asset classes available



Source: Deloitte

Role for Insurers?



Long-dated secured cashflows

Excess liquidity

Dearth of opportunities

A final thought….

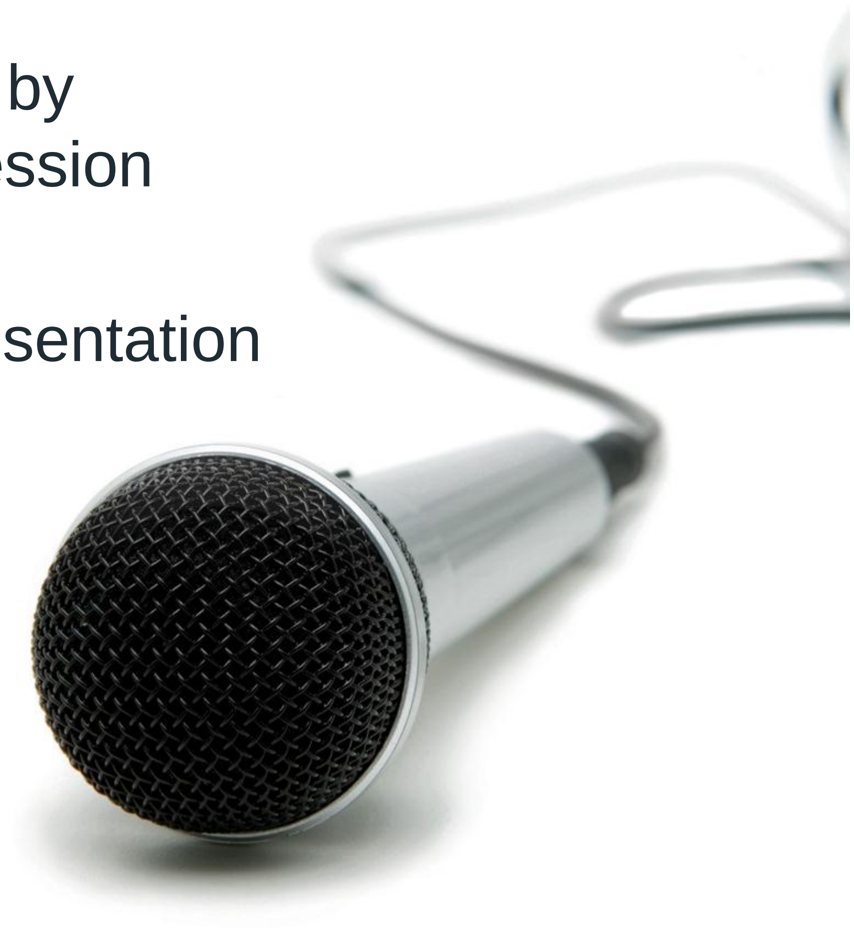
“This report, by its very length, defends itself against the risk of being read.”

“If you have ten thousand regulations you destroy all respect for the law.”

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



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