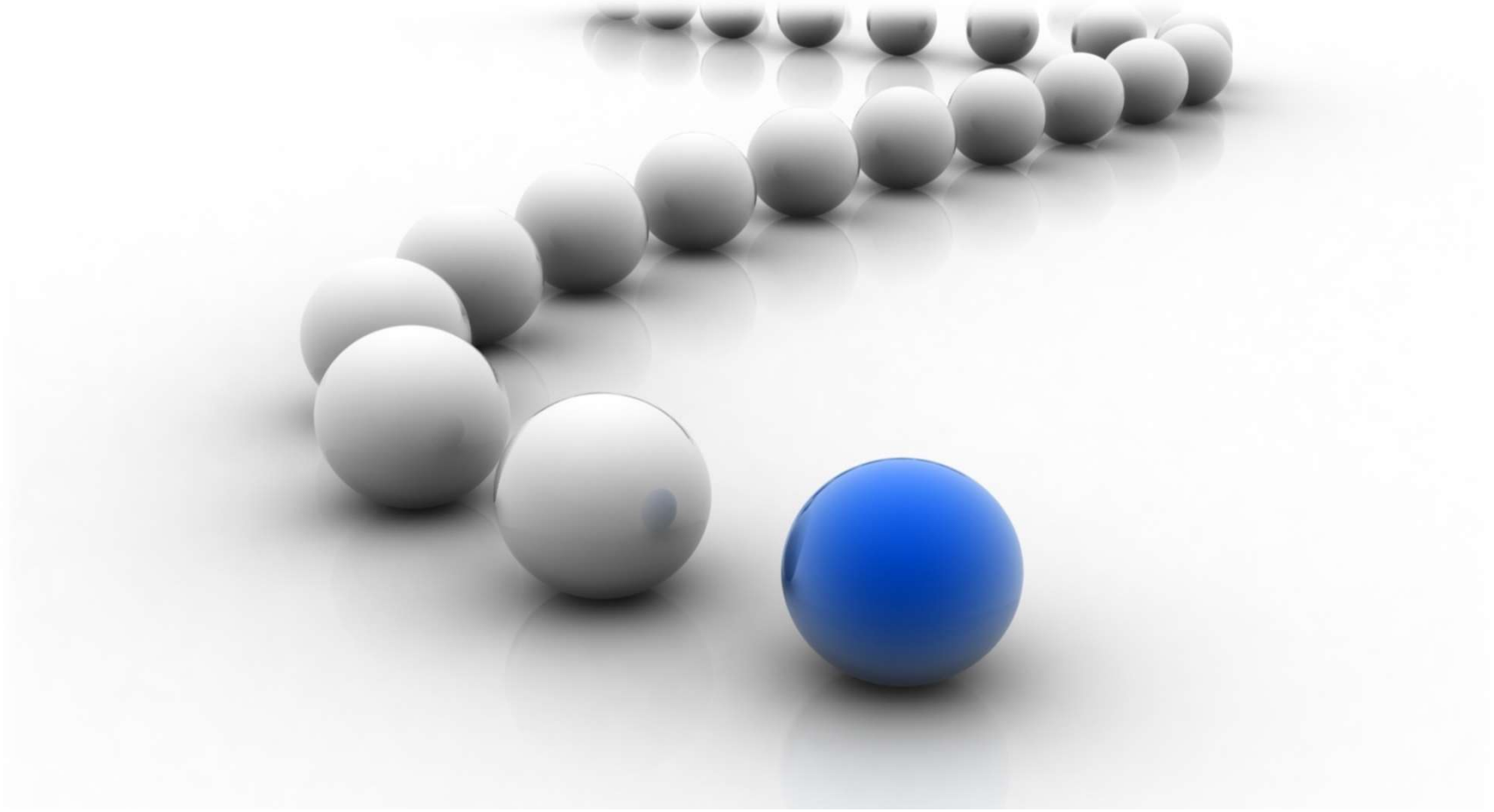


Pros and Cons of Collateralisation for Corporate Treasurers

Jon Gregory

11th Annual Fleming Collateral Management Forum

Amsterdam, 5th – 6th October 2017

Bank point of view

Credit risk reduction and capital

CVA, FVA and KVA example

Corporate point of view

More competitive pricing and access to long-dated derivatives

Liquidity and operational aspects

Central clearing

Q&A

The Birth of xVA

- **Derivatives pricing was previously seen as pricing cashflows**
- **Now it is seen as being also related to**
  - Credit risk
  - Funding
  - Collateral
  - Capital
  - Initial margin

How much is this plain vanilla derivative in the window?

- **These aspects are not mutually exclusive and often require portfolio level calculations**
  - The has led to the birth of the "xVA desk" or "central resource desk"
  - This desk typically deals with most of the complexity in derivatives pricing
- **Directionality is a big problem**

The Standard in OTC Derivatives

- **At the same time, standard derivatives valuation is becoming driven by close to perfect collateral exchange which is the norm in the interbank or centrally cleared market:**
  - Zero threshold
  - Daily calls
  - Mainly cash collateral
  - Initial margin

The high price of counterparty risk

- **For some banks, it is not the question of receiving collateral but also:**
  - Is it cash collateral
  - Can it be treated as settlement?

The Bank of England gets economical with its derivatives

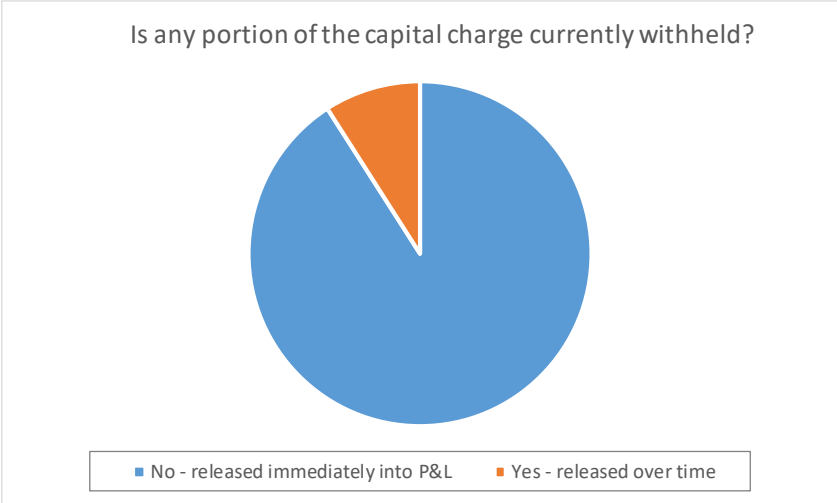
Costs Are Still Increasing

- **Arguably, xVA related costs still need to rise due to:**
- **Herd mentality**
  - Banks may remain competitive against peers, even if they believe they are 'underpricing'
- **Implementation of regulatory mandates**
  - Leverage ratio, NSFR, SA-CCR, FRTB
- **Growing representation of xVA on the balance sheet**
  - For example CVA and FVA accounting practices since 2012
- **KVA becoming less 'soft'**

Traders shocked by $712m CVA loss at StanChart

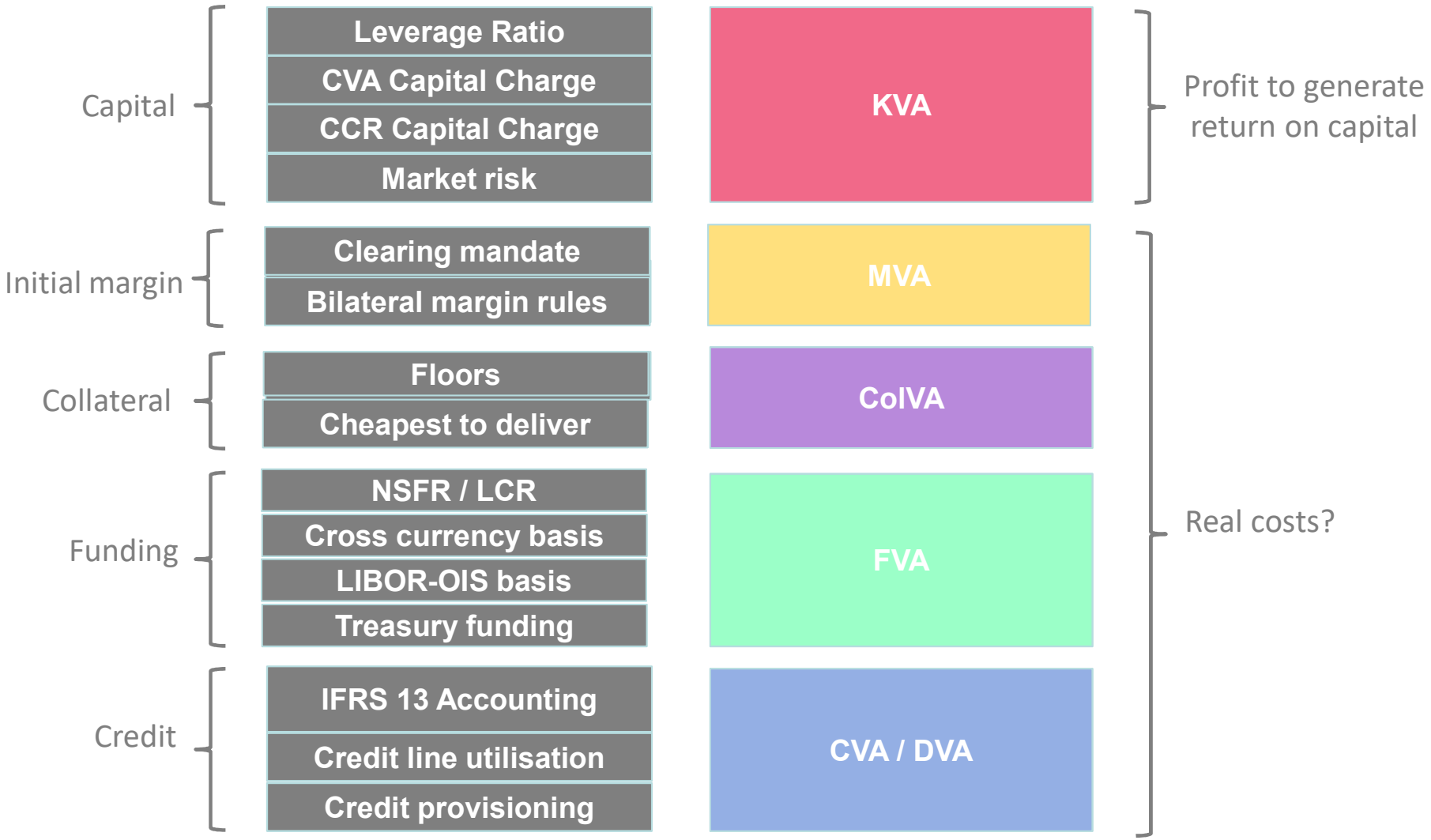
Feature - Tue 15th Mar

Bank's new methodology has been used by some rivals for more than a decade



Source: Solum Financial

The xVA Hierarchy



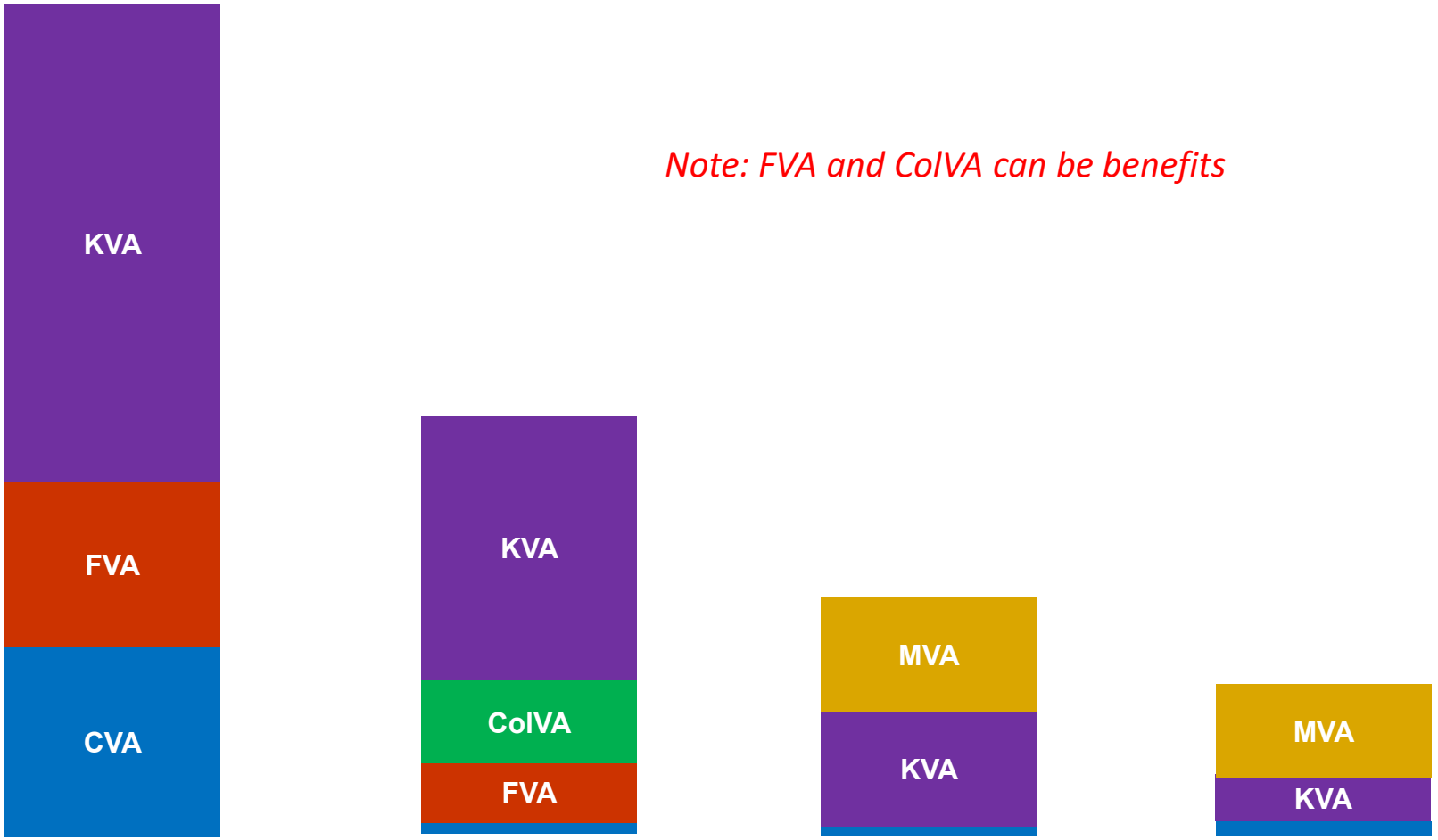
Bank Point of View – Uncollateralised Derivatives

- **Credit**
  - CVA has a balance sheet impact (even when collateralised)
  - CVA volatility is partially unhedgeable (e.g. no CDS on most corporate credits)
  - DVA benefit is not monetisable
- **Collateral**
  - Cash or securities makes a difference
  - Benefit of receiving collateral hard to monetise
- **Funding**
  - Funding costs are material and also have a balance sheet impact (for most banks)
  - Banks will pay funding benefits
  - FVA volatility is also difficult to manage
  - NSFR costs may be considered / LCR cost for any contingent ratings triggers
- **Capital**
  - Significant cost, Pruval, Leverage ratio costs may be considered
  - CVA capital is relevant for most banks (even given the corporate exemption in Europe)
  - CVA and FVA hedges can be capital consuming

Bank Point of View – The Benefit of Collateralisation

	Uncollateralised	Collateralised
Credit (CVA)	CVA	CVA reduction
	DVA	n/a
Funding (FVA)	FCA	FCA reduction
	FBA	FBA reduction
	NSFR	Improved NSFR ratio (cash collateral)
Capital (KVA)	CCR	Improved Return on Equity
	CVA	
	Pru Val	
	Leverage ratio	Improved leverage ratio (cash collateral)

Bank Point of View – The Benefit of Collateralisation



Note: FVA and ColVA can be benefits

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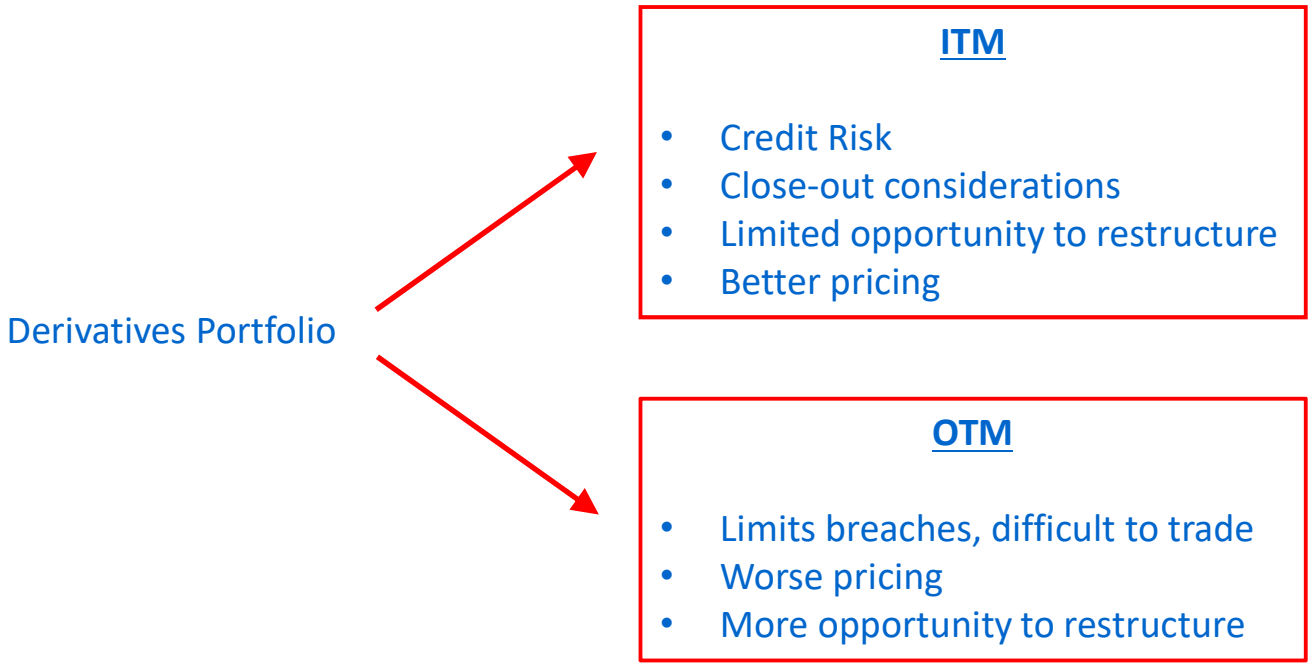
The Problem with Directional Derivatives Portfolios



A turning tide for two-way CSAs?

Restructuring xVA?

- **From a Corporate's perspective, collateralisation would tend to 'internalize' many of the costs of trading OTC derivatives**

	No CSA		CSA	
	Internal Costs	External costs	Internal Costs	External costs
Credit risk	Credit risk	CVA	Credit risk	CVA
Funding and Liquidity		FVA	Unsecured funding cost + liquidity buffer	
Capital		KVA		KVA

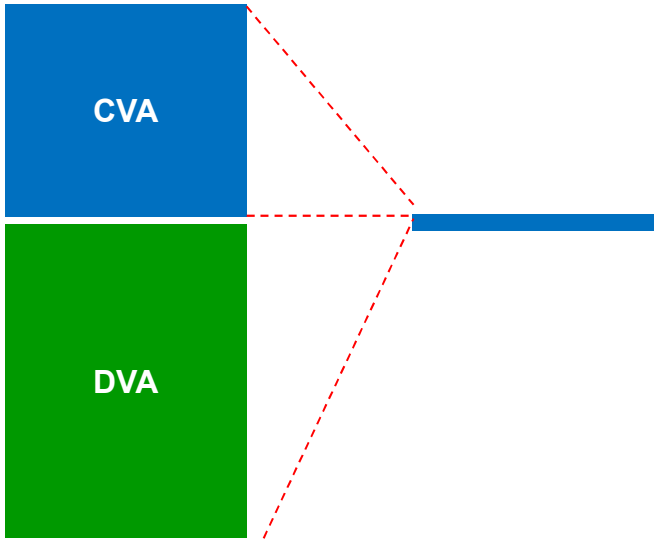
Corporate Point of View – The Cost of Collateralisation

Valuation Impact

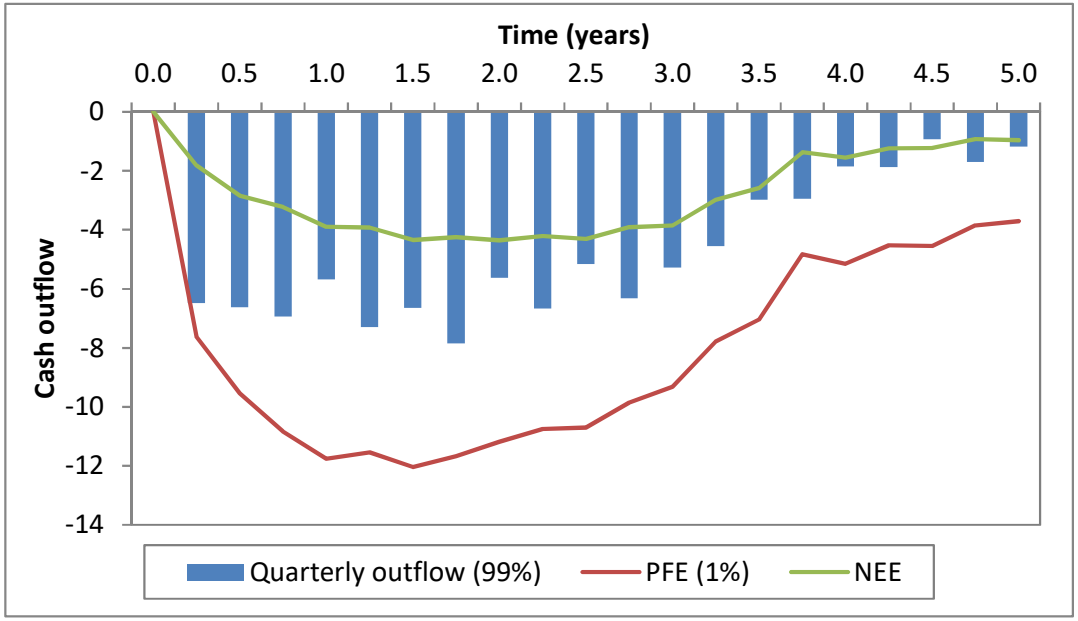
Limited to loss of net DVA

Liquidity Impact

- Corporate assets are generally non-financial and illiquid
- Requirement for large cash balance (cost of carry expensive) and/or use of committed bank facilities and/or CP market



One-way collateralised Two-way collateralised



Move to Collateralisation – Pros and Cons

- **Pros**
  - Better pricing with limited xVA costs
  - Closer alignment with price and valuation
  - Credit risk mitigation
  - Better close-out process
- **Cons**
  - In general, no regulatory requirements (for, example non-financial counterparties will only be subject to clearing obligations / bilateral margining if their derivatives notional exceeds a threshold)
  - Liquidity costs
  - Collateral disputes - don't want to just accept the banks valuation
  - Resource and systems heavy
  - Hedge accounting
  - Potential impact for other creditors (e.g. covenants) and impact on own credit rating

Alternatives

- **Managing position on a portfolio basis**
  - Maximum number of counterparties
  - Understand banks credit limits
  - Don't always trade at the 'best price'
  - Offsetting transactions where possible
- **Credit auctions for costly derivatives**
- **Break clauses**
  - Only mandatory breaks may be considered beneficial by banks
  - Accounting?
  - Cost of replacement
- **Reset features**
  - Weaker form of collateralisation
  - Can be at the transaction level for very heavy xVA trades

Both Points of View

	Uncollateralised		Collateralised	
	Bank	Corporate	Bank	Corporate
Credit	CVA	DVA	CVA reduction	Loss of DVA benefit
	DVA	CVA	n/a	Reduction due to reduced MPR
Funding	FCA	n/a	FCA reduction	Loss of FBA benefit
	FBA		FBA reduction	Additional Liquidity Costs
	NSFR		Improved NSFR ratio (cash collateral)	
Capital	CCR	n/a	Improved Return on Equity	n/a
	CVA			
	Pru Val			
	Leverage ratio		Improved leverage ratio (cash collateral)	

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