The views expressed in this presentation are my own and do not necessarily reflect those of the ESRB or its member institutions

The paper – overview

- Contributions:
  - Proposes an approach to approximate variation margin (VM) calls stemming from shocks to derivative exposures and compares these with market participants' liquid asset buffers in order to compute liquidity shortfalls

  - Determines each institution contribution to the system-wide shortfall in the spirit of the Shapley Value

  - Derives policy implications for targeted liquidity injections and testing of structural reforms

  - Applies the setup to interest rate and FX derivative positions using the severely adverse scenario of the 2018 CCAR stress test to find that the aggregate liquidity shortfall is limited when comparing with the global repo market average daily volume

The paper – general comments

- The derivative markets played an important role in the Great Financial Crisis and therefore a significant part of the ensuing financial reform focused on them

- The paper provides a setup that strikes a good balance between practicality and ability to leverage on the vast amounts of data collected since the GFC

- The work is well-founded on the underlying market failures that shape the implied policy actions discussed

- Additional work on the so-called defensive actions could further enlighten the magnitude of liquidity shortfalls and corrective policy response
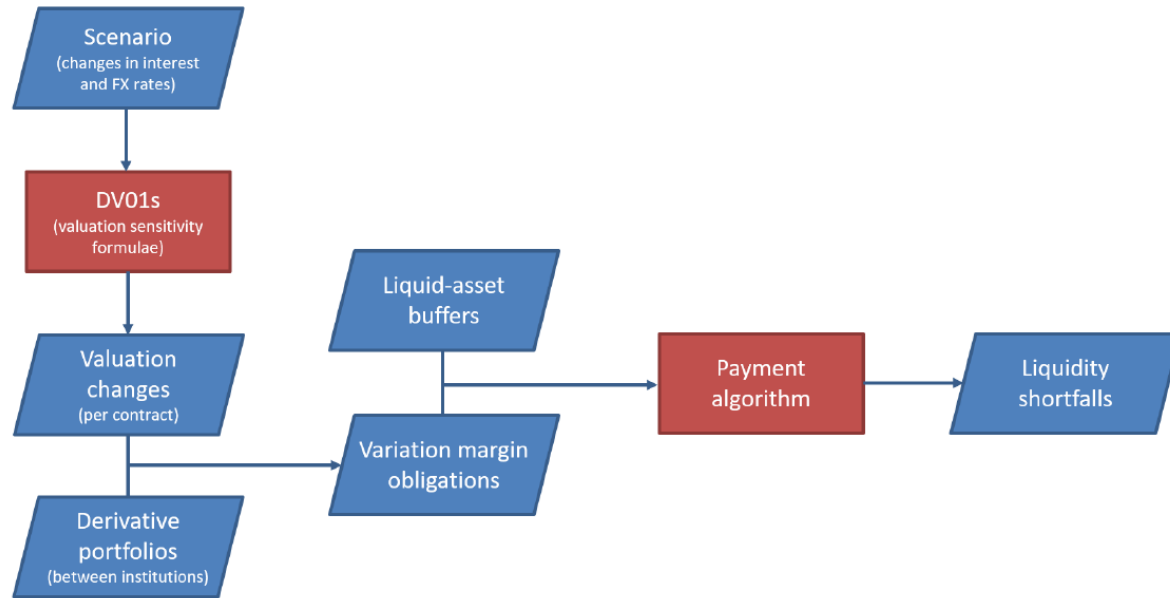
The setup

Figure 1: Schematic overview of simulation framework.

Source: Bardoscia et al. (2019)
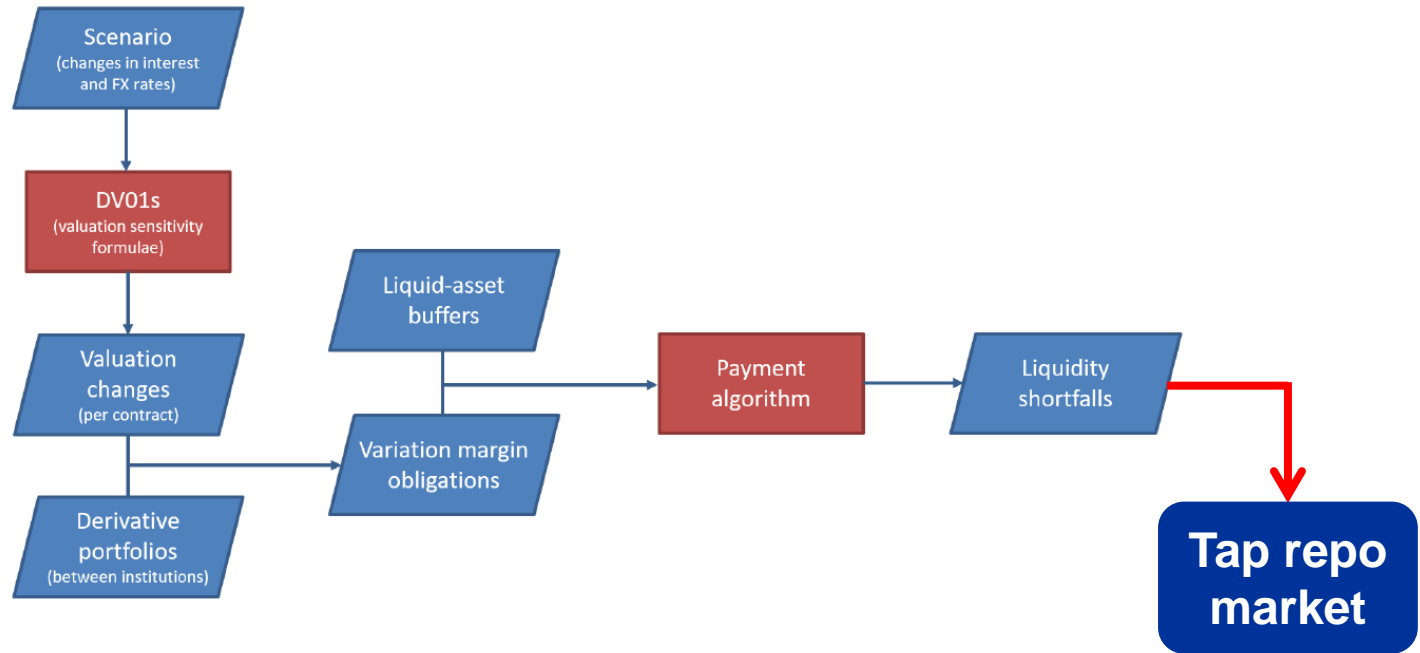
The setup – defensive actions

Figure 1: Schematic overview of simulation framework.

Source: Bardoscia et al. (2019) and discussant's add-ons
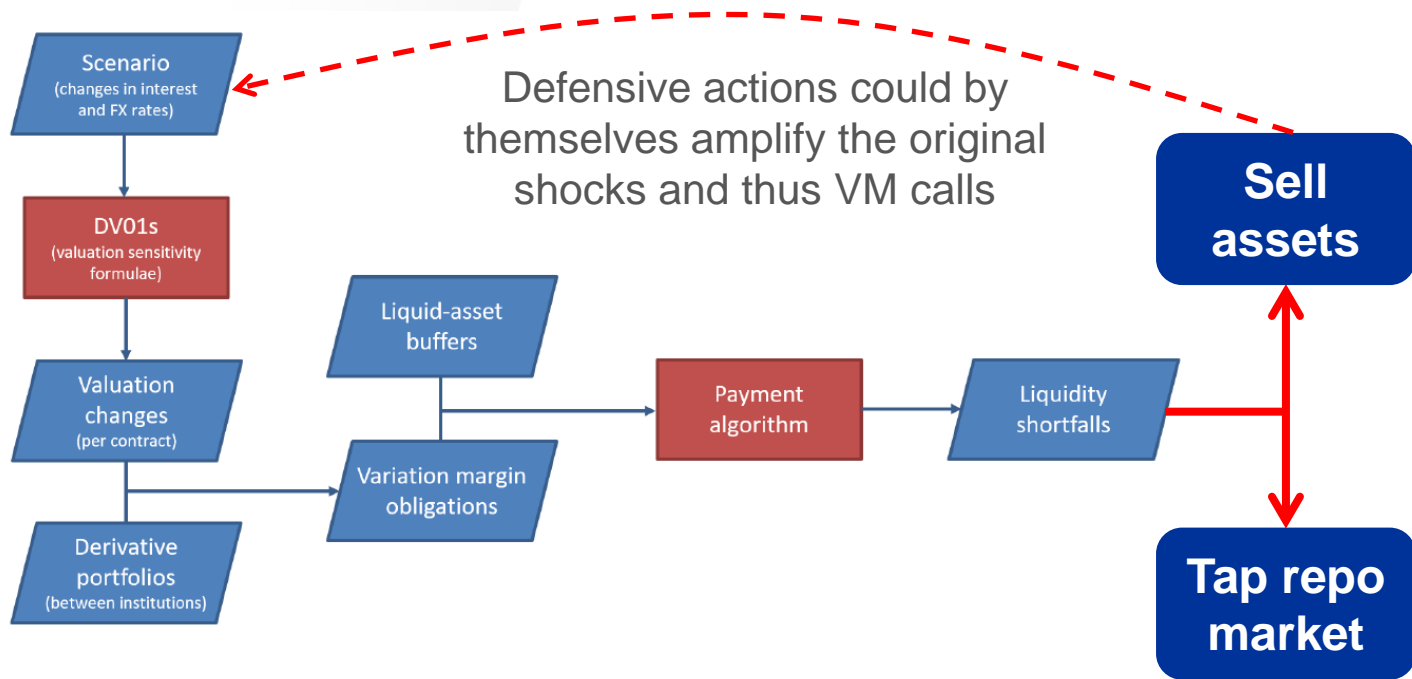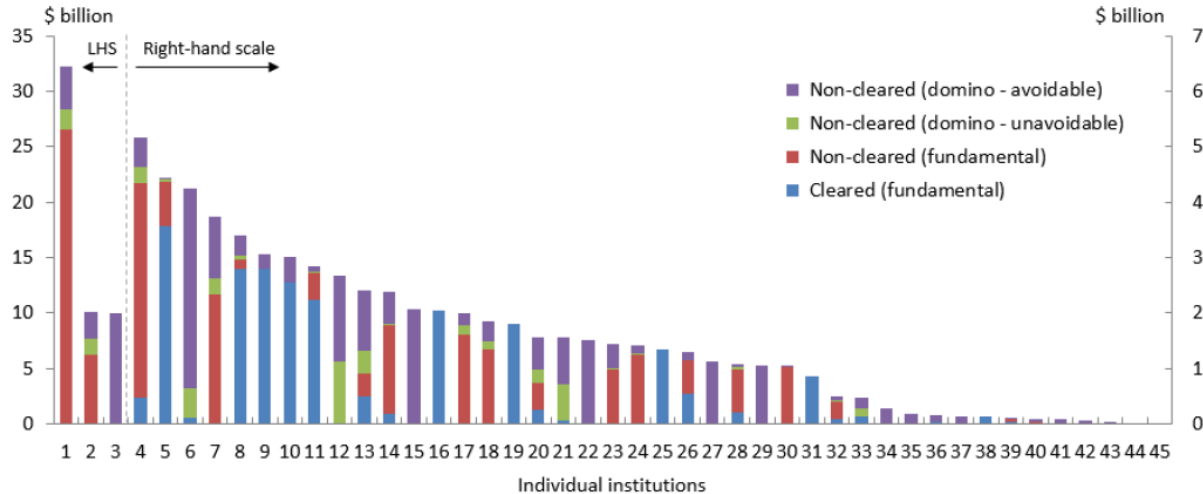
The setup – defensive actions

Defensive actions could by themselves amplify the original shocks and thus VM calls

Figure 1: Schematic overview of simulation framework.

Source: Bardoscia et al. (2019) and discussant's add-ons

The setup – liquidity shortfalls

Figure 6: Liquidity shortfalls at individual institutions, using derivatives share of excess liquid assets to help meet VM calls and assuming no intra-group VM obligations. Note that the left scale only refers to individual institutions 1, 2, and 3.

Source: Bardoscia et al. (2019)

- Aggregate liquidity shortfall is limited when comparing with the global repo market average daily volume

- But shortfalls are not evenly distributed

- Repo rates may be driven up by concentrated demand for liquidity

Policy implications

Component of shortfall		Liquid-asset buffers			
		Total cash	Derivatives share of total	Derivatives share of excess over LCR	
Institution level (with intra-group margins)	Cleared (fundamental)	0.0	3.1	22.9	**15.0%**
	Non-cleared (fundamental)	0.0	18.4	74.9	**48.9%**
	Non-cleared (domino unavoidable)	0.0	0.2	13.0	**8.5%**
	Non-cleared (domino avoidable)	0.0	1.7	42.6	**27.8%**
	Total	0.0	23.5	153.1	
Institution level (without intra-group margins)	Cleared (fundamental)	0.0	3.1	22.9	**19.5%**
	Non-cleared (fundamental)	10.8	24.5	51.0	**43.5%**
	Non-cleared (domino unavoidable)	0.1	0.6	7.6	**6.5%**
	Non-cleared (domino avoidable)	0.3	1.3	35.8	**30.5%**
	Total	11.2	29.5	117.2	
Grouped entities	Cleared (fundamental)	0.0	2.5	13.5	**24.9%**
	Non-cleared (fundamental)	0.0	6.8	35.8	**66.1%**
	Non-cleared (domino unavoidable)	0.0	0.1	2.0	**3.7%**
	Non-cleared (domino avoidable)	0.0	0.3	3.0	**5.5%**
	Total	0.0	9.7	54.2	

Table 3: Aggregate liquidity shortfalls in USD billions.

Source: Bardoscia et al. (2019)

- Non-cleared 'domino' shortfalls range from 9.2% to 37% of aggregate shortfalls

- Since targeted liquidity injections only address these and since central banks are never liquidity-constrained in their own currency, how would such targeted actions compare to a broad-based policy action in the repo market?

- As targeted liquidity actions (i.e. *the bang-for-buck ratio*) are a key part of the policy implications of the paper, more discussion on this would be appreciated

Thank you for your attention

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