

Discussion: Examining the costs of increased collateral coverage in the LVTS

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Key points in nutshell

- LVTS is credit based system – finality and risks are controlled with position limits (caps) and collateral
- Two payment streams with same settlement logics but different risk controls

Tranche 1 (T1)	Tranche 2 (T2)
<ul style="list-style-type: none">• Fully collateralized	<ul style="list-style-type: none">• Cushion for one default• Residual risk of multiple defaults covered by the BoC

- Simulation is used to analyze impact of moving to T1 type setup
 - Full replication of the LVTS logics through tailored model in BoF-PSS2
 - Long data set covers widely variations in data

Observations

- T1 and T2 usage profiles differ

	T1	T2
Average transaction size	\$96.8m	\$3.5m
Share of volume (according to CPA)	2%	98%

- “T1 ... option ensures a financial institution can make time-sensitive payments without being dependent on credit extended by other financial institutions participating in the system”. (www pages of CPA)
 - “Tranche 2 payments make up the great majority of the volume and value of payment transfers in the LVTS, principally because of savings in collateral relative to Tranche 1 operations.” (www pages of BoC)
- Division of liquidity and payments into two pools can decrease efficiency

Observations continued

“Participants encouraged to not rely on the central queues” ??

- “Since participants are able to manage their bilateral and multilateral LVTS positions in real time, they are encouraged to send only those payments that will pass the risk-control test(s). See LVTS Rule No. 7, available at < www.cdnpay.ca > for more information.”
(Arjani & McVanel: A primer on LVTS 2006, BoC)

This seems to contradict

- Literature on benefits of centralized liquidity saving mechanisms
- Expectations and results of your own study:
 - “Presumably, participants would rely more on queue”
 - “Queuing reduces collateral needs through more efficient netting”

Questions and suggestions

- The title was “Examining the costs...” - do you plan to quantify the cost or benefits for the participants or BoC?
 - Enhancement of one payment pool in throughput
 - Opportunity cost of the changed collateral needs
 - Implied value (or value at risk) of the residual guarantee for T2
- Correlation between need for extra collateral and available reserves?
- The rationale for T1 was to enable time critical payments – You could explicitly include priority payments in the simulations.
- Impact of possible participant behavior on payment submission could be quantified
 - Monte Carlo sampling of payment orders
 - ABM for submission behavior
- “Next generation” project - future presentations on the design?



Thank you!

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