A New Order of Things is Needed

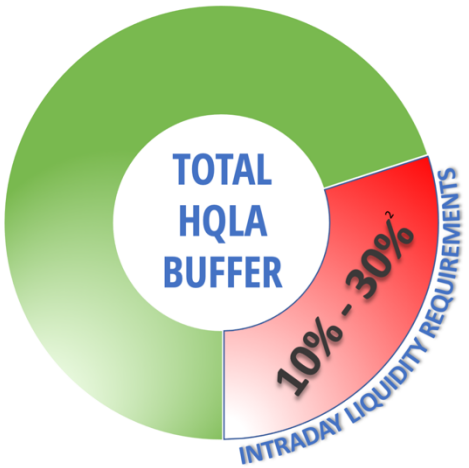
Whilst the collateral upgrade market provides market participants with balance sheet efficiency achieved from exchanging non-cash collateral baskets, the incumbent securities settlement infrastructure suffers from the inability to provide an industrial strength solution for atomic Delivery versus Delivery (DvD) of baskets of securities. Atomic DvD refers to the instantaneous exchange of one basket of securities versus another basket of securities across a fragmented securities settlement system.

Current market practice is to settle collateral upgrade transactions in one of two ways: 1) two Free of Payment (FoP) settlements, or 2) two Delivery versus Payment (DvP) settlements. Unfortunately, both settlement practices have drawbacks and consume costly bank capital. The former consumes bank capital due to intraday credit exposures caused by timing mismatches of unsynchronized FoP deliveries, and the latter consumes bank capital due to the requirement to run higher intraday cash reserves to facilitate the cash payment legs of DvP settlements. In the analysis below, we estimate the cost of holding intraday liquidity reserves as part of an average sized HQLA portfolio for a Globally Systemically Important Bank (G-SIB.)

The true cost of holding unencumbered HQLA buffers will vary widely from bank to bank, and so will the manner in which the cost is attributed to various business lines, but generally speaking the range that is quoted by bank treasurers is 50-125 basis points. According to a recent report by Oliver Wyman "Intraday Liquidity: Reaping The Benefits of Active Management," the cost of holding HQLA reserves for intraday liquidity management is 100 basis points.

The Oliver Wyman report elaborates that between 10-30% of bank HQLA buffer requirements are driven by intraday liquidity needs, and that proactive management of intraday liquidity can lead to a reduction in a bank's intraday liquidity requirements of 25% (or more.) Here is an illustrative estimate of intraday liquidity costs for a G-SIB, using inputs from the Oliver Wyman report:

10% - 30% of total HQLA Buffer is driven by intraday liquidity requirements[2]



Proactive intraday liquidity management reduces total HQLA Buffer requirements

Average Size of G-SIB HQLA Buffer
~ €237 bn[1]

Average Cost of Holding HQLA Buffer per G-SIB, basis points
~ 100 bps[2]

Average Cost of HQLA Buffer per G-SIB
€2.37 bn

Taking a conservative assumption that only 10% of a G-SIBs HQLA buffer is related to intraday liquidity requirements, the estimated annual holding cost per G-SIB is:
€237 mm

[1] Source: Basel III Bank Monitoring Report, October 2018 [2] Source: Analysis by Oliver Wyman

Applying a conservative estimate that only 10% of a G-SIB's overall HQLA Buffer is driven by intraday liquidity exposures, the estimated cost of a G-SIB's intraday liquidity buffer is €237 million per year.

Assuming a holding cost of 100 basis points for intraday liquidity reserves, we can estimate that every €1 billion reduction of intraday liquidity reserve requirements equates to approximately €10 million in cost savings per annum.

It is difficult to forecast the precise intraday liquidity exposure reduction from which a bank may benefit by using HQLA[x]. That is because the potential benefit is a function of a bank's unique secured funding footprint, which can vary significantly from one bank to the next bank. However, we do know that intraday liquidity exposures are generally large and expensive, and therefore the economic benefit of reducing these exposures is also large and relevant to bank shareholders.

HQLA^X Platform Benefits

Collateral Fluidity

- Improve collateral fluidity with an operating model that does not require securities to be moved across custodians.
- Inter-operability across tri-party / custodians.

DVD

- Real-time and atomic legal title transfer enabling DvD (Delivery vs. Delivery) of baskets of securities.

Regulatory Transparency

- Enhance regulatory transparency of collateral chains via a standardized and transparent marketplace, with a "Collateral Tracking" view for regulators.

Risk reduction

- Mitigate systemic risk by supporting orderly default unwinds.

Intra-day credit and liquidity

- DVD settlement on DLT gives rise to no intra-day credit needs by eliminating the requirement for one party to deliver Free of Payment (FoP) prior to another FoP, thereby causing potentially unmanaged random intraday credit exposures developing between the two counterparties.
- DVD settlement removes any requirement for intra-day liquidity to collateralise trades to mitigate credit risk as a result of the requirement to manage down credit exposure, thereby allowing banks to "reduce insurance liquidity buffers on buffers."
- Ability to book trades to settle at a point in time allows banks to be prescriptive to the minute to manage collateral including intra-day.

Reduction in fails

- Many banks manage collateral and substitutions using deliver-out settlement which gives rise to fails on recalls and substitution especially across depositories/custodians.
- Using DCRs (effectively Tri-party versus Tri-party) will reduce the number of fails in the system as collateral does not need to move across custodians.
- Many banks expect to use HQLA^X to manage intercompany liquidity balances and reduce fails in so doing. This is an especially acute problem with the potential for mandatory buy-ins and fail penalties scheduled for implementation by regulators.

Single marketplace to manage LCR

- Eurex Repo will provide a single marketplace to pool liquidity and enhance standardisation.
- Many banks have shored up short term liquidity and expect to use HQLA^X as a place to monetise excess liquidity which they may not have been able to do so efficiently before.
- Equally this would give banks access to funding counterparties they might not have otherwise thought to access.
- It is anticipated to create a market that allows for reuse of DCRs within the HQLA^X environment thereby creating a more liquid market.

More eligible collateral. "Open for more eligible collateral?"

- As more collateral is digitised (e.g. using DLT) they could be added as eligible collateral on HQLA^X to provide a funding market for assets previously ineligible for the securities vs securities collateral market (one example of this is gold).
- Many banks are working on the digitisation of cash. Although HQLA^X is starting life with non-cash securities baskets, it is possible and likely that once the participants on HQLA^X have decided on one (or more) chosen cash coin, that could be incorporated into HQLA^X as the cash leg to repo funding transactions.
- Each of these aspects should permit banks and other participants to manage collateral much more efficiently with more collateral being available to be managed by sophisticated collateral managers.
- If securities are issued directly onto a ledger then HQLA^X will be well positioned to be the central funding market for digitised securities.

Margin

- Over time we expect CCP's will be able to accept DCRs as initial and variation margin.
- Given the ability of HQLA^X to be precise to the minute to pledge DCRs, this would permit banks to post collateral as variation margin to CCPs.
- Fully automated process would be enabled to open a DCR with a CCP, agree exposures, have the notional of the DCR linked to the exposure which is then automatically collateralised by TPAs.

Post default liquidation protocols

- In the event of a default of a participant in a chain of DCR transactions, HQLA^X is able to freeze the DCRs & provide the participants with the inventory details such that they can bilaterally resolve the default.

Constant Cash Value

- DCR swaps are booked as constant cash value versus constant cash value. This differs from the current market which is more generally booked as a portfolio of HQLA bonds which fluctuate in value verses the non-HQLA basket which is marked to the market value of the HQLA basket. This results in an unknown trade size over the life of the trade which at times of high volatility can make funding harder to manage. For example, in a severe risk-on environment, HQLA securities tend to sell off and non-HQLA tend to rally – this means the funding trade size gets smaller as the need for funding gets bigger. The inverse is also true and during the financial crisis was a meaningful reason why many banks found themselves liability constrained (short collateral) and unable to reduce balance sheet during a time when trading desks were being instructed to de-lever.