Mobilising collateral – the growing need for counterparty diversification

“Greater diversification of counterparties in the repo market can halt the decline in liquidity, says Roberto Verrillo at Elixium.”

Regulatory changes aimed squarely at improving the resilience of financial markets and their participants have had, as an unintended consequence, a direct impact on the pricing and liquidity provided by traditional intermediaries (banks).

Balance sheet costs have risen substantially as significantly more capital is now required to support outstanding transactions. These changes have had a disproportionate effect on low margin, high volume businesses, such as repo, which are balance sheet intensive.

As a result, balance sheets have been scaled back dramatically and consequently banks have reduced their trading operations and risk appetite.

A clear consequence of the reduction and pricing of balance sheets has been a pronounced pass-through of this additional cost from banks to their customers, and a knock on effect on the pricing and liquidity of the underlying assets.

More specifically, spreads offered to clients for balance sheet intensive repo transactions have increased to reflect the additional costs incurred by banks by virtue of regulation – increasing the overall cost of trading.

This has also affected dealers’ ability to market make because the cost of holding and funding inventory has risen.

The demand for initial and variation margin cash and collateral provision/transformation is set to increase dramatically with the adoption of new rules surrounding mandatory margining of uncleared OTC derivatives. Consequently, this has led to question marks around the markets’ current capacity to satisfy the demand for high quality liquid assets (HQLA) and cash during exceptional market conditions.

Looking at this issue in its entirety we can ascertain quite clearly that:

- Illiquidity in secured and unsecured markets is reported across the spectrum, be it buy-side, sell-side or brokers
- Current intermediated capacity is stretched and is causing fragmented pricing
- Intermediated capacity is only likely to deteriorate further
- There is more than ample liquidity in the form of cash as a result of global quantitative easing (QE)
- Collateral providers have significant reserves of previously un-lent and unencumbered inventory
- There is an increasing need for capacity on the back of new margining rules for OTC products
- The transmission mechanism for collateral transformation to be executed is severely impaired.

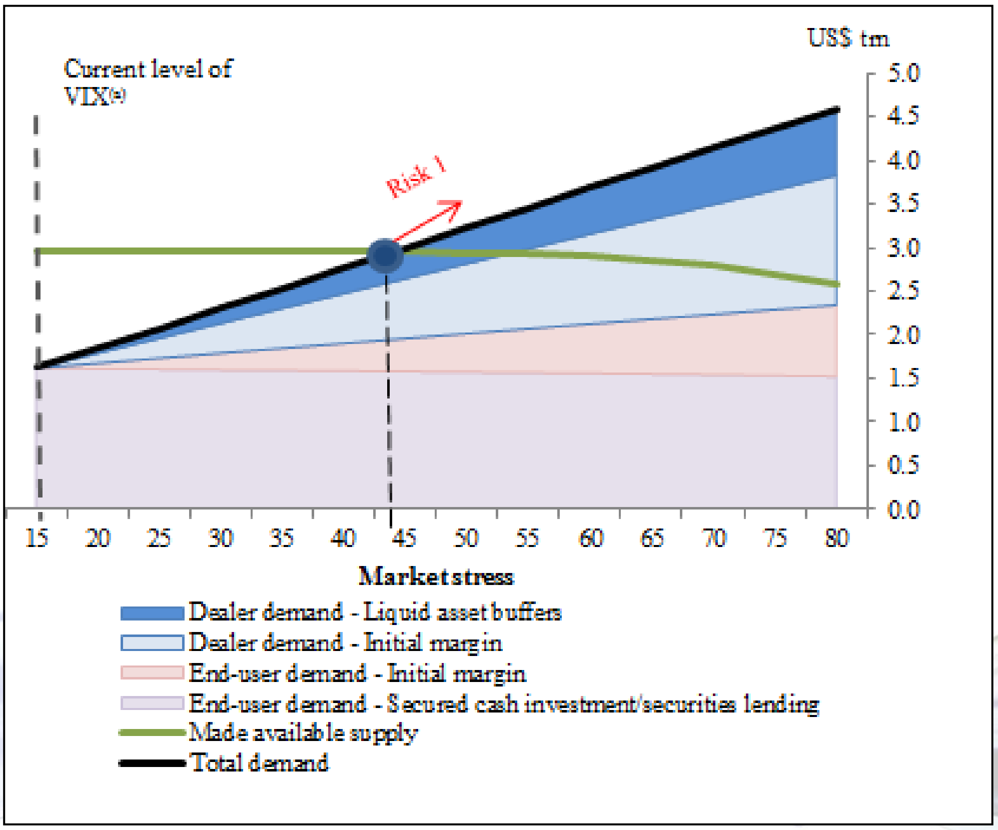
The potential for more serious market dislocations where collateral provision/transformation can be severely affected in stressed environments is set out more comprehensively in a Bank of England staff working paper (No.609):

http://www.bankofengland.co.uk/research/Pages/workingpapers/2016/swp609.aspx

Here are some selected excerpts:

Summary: the risk of demand exceeding supply (Risk 1)

Chart 1: Modelled collateral supply/demand for different levels of market stress



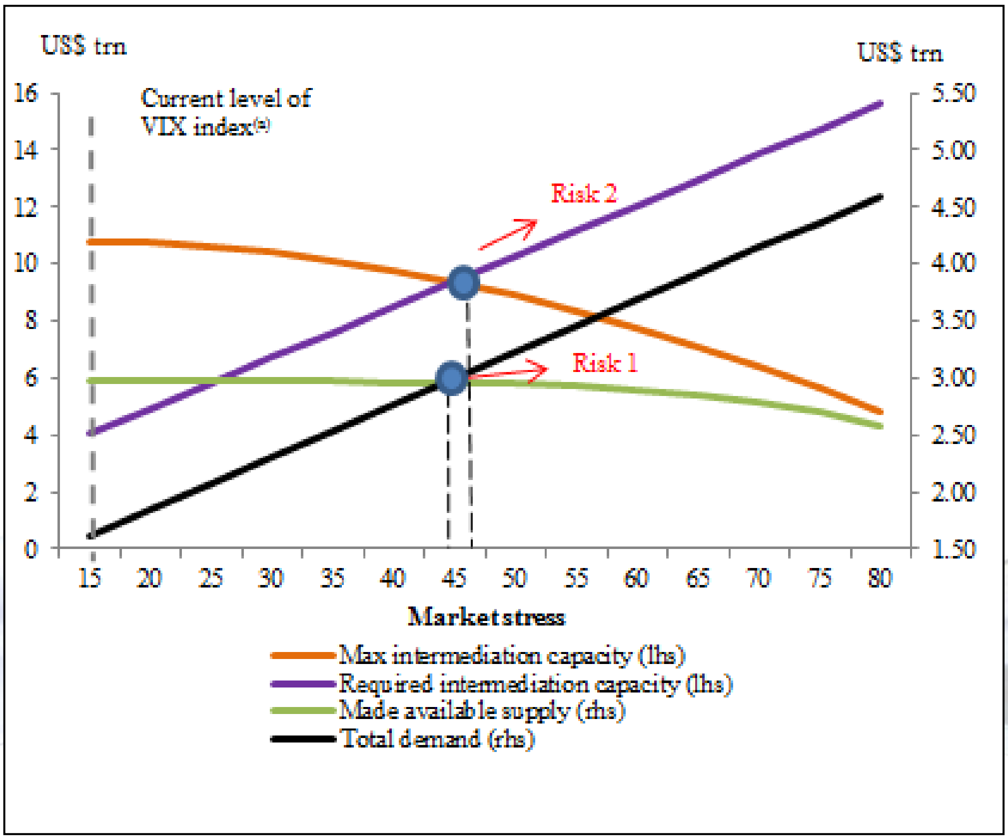
Based on a series of empirical historical relationships, the green line in **Chart 1** shows the ***made available supply of collateral as a decreasing function of market stress*** (which we proxy with the quarterly average of the level of the VIX index of equity volatility).

Combining the profiles for collateral demand and supply brings us to **Risk 1**: that is, ***the possibility that as market stress intensifies, total demand for high-quality collateral eventually exceeds its made available supply***."

As market stress intensifies, the ability and willingness of these institutions to obtain the leverage necessary to perform this intermediation tends to decrease. This leads to the risk that in future periods of stress – although the demand for collateral might not exceed *un*leveraged end investors' ability to supply it – collateral may become 'blocked'; that is, unable to reach those that wish to use it, due to a shortage of intermediation capacity.

Risk 2: Can collateral get to where it is most needed?

Chart 2 – "Estimated required intermediation capacity necessary to meet demand for collateral (RIC) versus the maximum intermediation capacity of dealers – for different levels of financial stress"



Sources: Bloomberg, BIS, Dealogic, Data Explorers, ECB, FSB, ICMA, ISLA, SIFMA, SNL and Bank calculations.

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Although **Risk 2** is slightly less likely to crystallise than **Risk 1**, it is likely to persist (as it can take a long time for new intermediation capacity to come to the market) and thus, could have a significant negative impact on financial stability.

In particular, if triggered, **Risk 2** will likely prevent collateral from performing its role of supporting market functioning. The consequences of this might include a sudden inability of market participants to obtain collateral to post initial margin on their derivative portfolios, leading to a potentially disorderly unwind of positions and/or inability of leveraged investors (e.g. hedge funds) to fund their positions and continue supporting market liquidity. If Risk 2 crystallised, banks could also experience significant difficulty monetising their liquid asset buffers via repo markets.

By facilitating the flow of cash to collateral, and vice-versa, Elixium seeks to "release" liquidity from counterparties who previously may not have been engaged in secured financing activity.

At the recent (08/16) economic policy symposium at Jackson Hole, Minouche Shafik, Deputy Governor, Markets & Banking, Bank of England, and a member of the Monetary Policy Committee (MPC), referenced data below when commenting on monetary policy and its transmission mechanism:
http://www.bankofengland.co.uk/publications/Pages/speeches/2016/918.aspx

It is clear that repo activity has diminished as balance sheet has been constrained while bid/offer spreads have widened to reflect the additional cost.

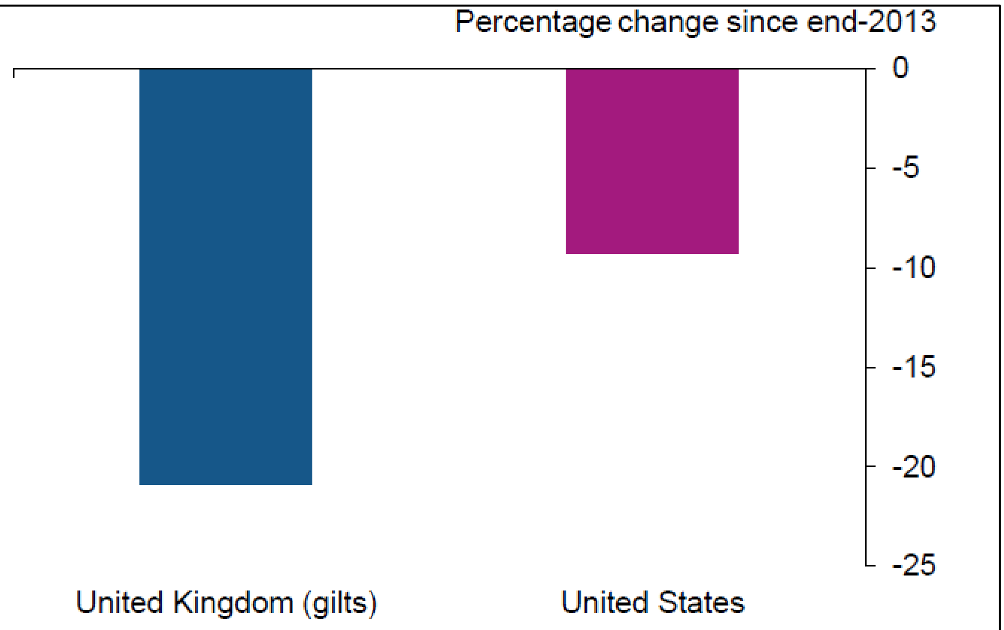
Liquidity in anything other than short dated, balance sheet neutral trades has dried up substantially, with brokers and market professionals all reporting a lack of activity and interest in price making across the inter-dealer community.

The more balance sheet intensive a particular business area is, the higher the "hurdle rate" for returns should be. In this regard market making (via capital costs for holding positions) and repo stand out.

We believe that as this process of re-pricing and charging business areas for the regulatory cost of partaking in certain businesses (and transactions) progresses, the market will find many more institutions cutting back and re-structuring their current business models, or simply pulling out of certain markets or product lines altogether.

Clearly, this will exacerbate the problem.

Chart 3 – Change in Repo market activity since 2013

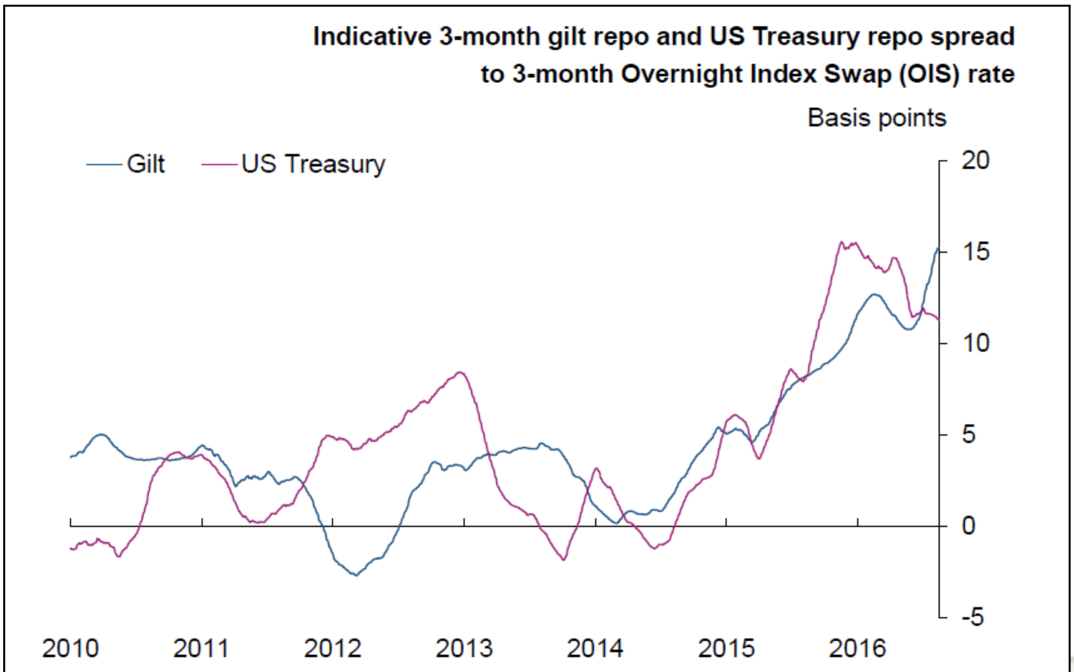


Sources: Federal Reserve Bank of New York, Bank of England and Bank calculations.

UK data show the percentage change between end-November 2013 and end-May 2016 (the latest data avaliable) in outstanding gilt repo and reverse repo transactions of a sample of UK resident banks.

US data show percentage change between end-2013 and early-August 2016 (the latest data available) in US primary dealers' repo and reverse repo financing.

Chart 4 – Spread between Repo rates and swap rates



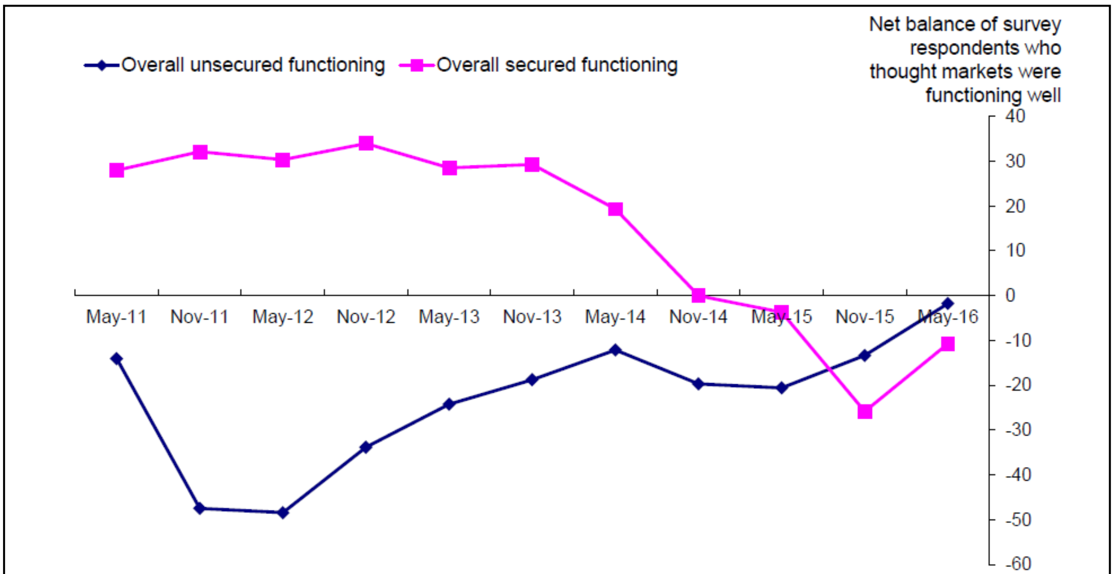
Sources: Bank of England, Bloomberg and Bank calculations.

Three-month moving average. Gilt repo rates are indicative and based on internal rate collection.

Data up to 16 August 2016.

The cost of transacting repo has risen and will continue to rise as regulation is implemented.

Chart 5 – Survey respondent's views of sterling money market functioning



Source: Money Market Liaison Committee Sterling Money Market Survey and Bank calculations.

'Net percentage balance' is calculated as the difference between the balance of lenders reporting that, on a scale of 1-5, the market was functioning very poorly (1) to very well (5).The net percentage balances are scaled to lie between ±100: more extreme responses (1 and 5) attract a weight of 100%, less extreme responses (2 and 4) attract a weight of 50% and central responses (3) attract a weight of zero.

The net balance of survey respondents who think secured markets are functioning well has declined in recent years.

CSA re-negotiation and Variation Margin (VM) rules – the impact on OTC products and collateral markets

Buy-side firms will need to be able to source cash collateral for variation margin (VM) on OTC derivatives going forward. Regulation targeting initial margin (IM) and VM for OTC products will come into effect during the first half of 2017. Dealers are busy trying to comply with bi-lateral margin rules set out by BCBS/IOSCO that could entail having to amend up to 200,000 CSAs.

Each individual CSA may require re-negotiation and could trigger payments based on these amendments, which revolve around dealers wanting to receive cash only as VM. Previously, many of these CSAs were margined using collateral, but as dealers will only get capital relief from daily-exchanged, cash margined VM, the cost to them of receiving collateral becomes prohibitive. Consequently, sell side firms will factor in charges (via wider bid/offer spreads) to reflect their increased cost base.

The requirements for all entities that are viewed as systematically important to exchange IM and VM against their OTC portfolios are mandatory. It is estimated that the size of the uncleared market in OTC products to be in the region of USD127 trillion *(ISDA).*[1]

Buy-side firms will need to decide on how they view the implications of having to produce cash/collateral IM/VM vs their OTC portfolios, particularly in times of market stress.

The ability to convert collateral to cash, and the markets' capacity to enable that process, needs to be considered in light of these imminent regulatory changes.

According to a recent Risk magazine article, margin requirements spiked following the Brexit vote: "Estimates of the combined (VM) margin call issues by derivatives central counterparties (CCP's) on the day range from $25 billion to $40 billion or more."[2]

Elixium – liberating capacity

Elixium is a global all-to-all electronic marketplace, designed to provide a transparent and unbiased venue for trading collateral and seeking to address the growing issues around liquidity that have been affected by on-going market evolution.

Elixium is a regulated marketplace (a Multilateral Trading Facility, or MTF) for collateral and secured deposits, targeted at firms of various size and constituencies, including corporate treasurers, CCPs, asset managers, hedge funds, banks, government issuers, central banks, insurers and agencies.

As an MTF, Elixium is characterised by the non-discretionary execution of transactions and is therefore subject to pre-determined rules.

[1] 1 Initial Margin for Non-Centrally Cleared Swaps: Understanding the Systemic Implications, ISDA November 2012.

[2] Huge Brexit margin calls stoke intra-day funding fears – 31 October 2016

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Elixium has been designed to address the impact of regulation, balance sheet pressures and deteriorating levels of liquidity in the repo market by providing participants with collateralised liquidity on a fair, transparent, inexpensive and equitable basis.

Costs of some investment strategies (such as LDI which is sensitive to the provision and pricing/tenor of finance) have been driven sharply higher by this balance sheet deficiency and intermediary capacity. Elixium has plans to introduce specific solutions in order to increase liquidity for these strategies going forward.

Whilst the demand and client benefits are clear, many new counterparties are continuing to face high barriers to entry when seeking to access collateralised liquidity.

Elixium has addressed this by adopting a user-friendly modular approach to documentation with the option of either subscribing to Elixium's standard GMRA (with bespoke annexes and rapid All-to-All capability) or utilising existing GMRA documentation between counterparties.

Elixium provides a full credit limit framework where the participant retains full control over the credit line, products and firms with whom they are willing to trade.

Via intelligent trading tools and analytics, Elixium enables institutions to qualify for credit slippage, view depth and liquidity across tenors and collateral baskets, and offer varied execution functionality.

Elixium uses standardised products and processes. Firms will have access to a range of maturities, currencies and collateral baskets and will be able to facilitate collateral upgrades and new trading strategies via cleared, tri-party and domestic settlement.

Following mandatory margining of un-cleared OTC products (EMIR), demand for efficient initial and variation margin collateral transformation, is set to increase dramatically. Elixium facilitates this process and will provide a marketplace through which cash or collateral can be sourced from a much more diverse counterparty base than is currently the norm.

Over the coming months, Elixium will expand its initial offering to more than 40 collateral baskets covering fixed income and equities in GBP EUR USD CAD JPY and EMs.

The system will be launched in various stages:

- Auction, using standard collateral baskets and a fixed rate.
- CLOB (central limit order book) where we will endeavor to standardise maturity dates where possible in order to concentrate liquidity away from balance sheet sensitive dates, weekends, bank holidays etc.
- IOI (Indication of Interest) where a participant can express a bid/offer in a particular date run to suit his cash flow needs.
- Collateral Transformation, which will enable participants to swap collateral credit in exchange for a fee.

In summary, Elixium has been designed to provide:

- A transparent, unbiased, regulated, all-to-all marketplace.
- A reduction in counterparty credit risk through collateralisation.
- Rapid growth and diversity of counterparty base and access to new supplies of cash and collateral.
- Specific trading solutions to facilitate implementation of certain strategies.
- An efficient conduit to raise/invest cash/collateral on a secured basis to manage margin and cash-flow and to demonstrate "best price execution".
- Accelerated counterparty on-boarding.
- Tri-party, cleared and domestic settlement methodology.
- Pre-trade anonymity in a MTF with a robust credit framework.
- Collateral transformation functionality for HQLA with NSFR (Net Stable Funding Ratio) and LCR (Liquidity Coverage Ratio) benefits.

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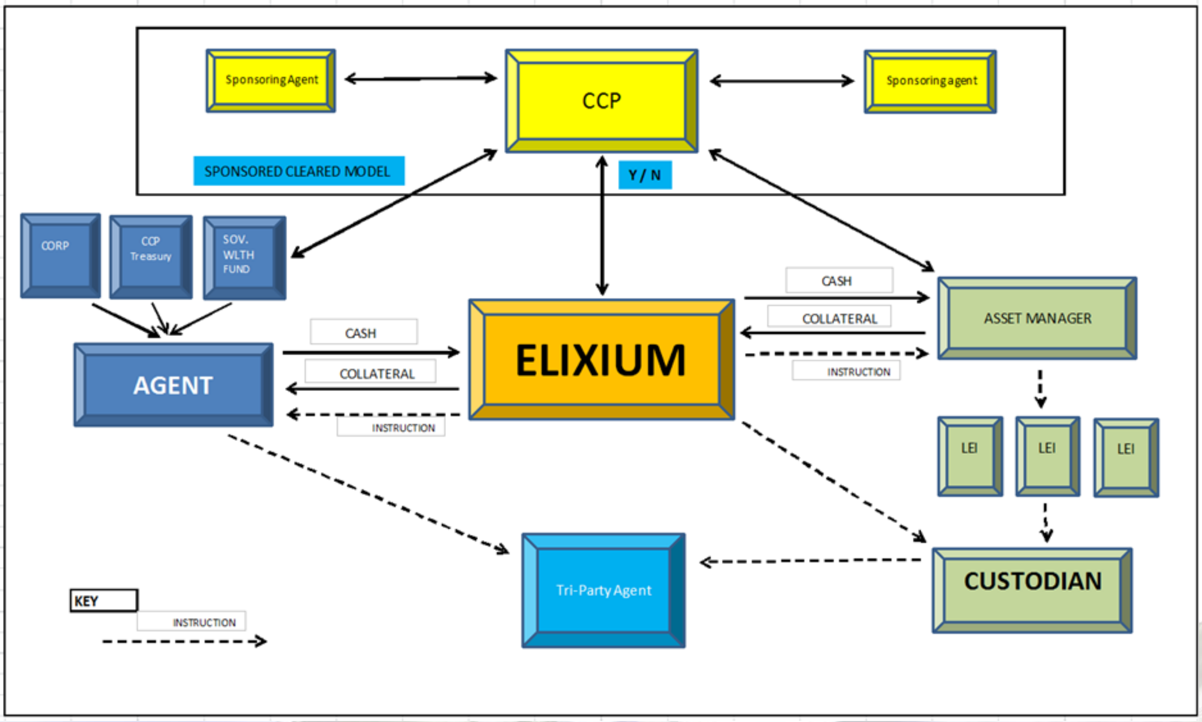
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CCP
Sponsoring agent
SPONSORED CLEARED MODEL
Y / N
CORP
CCP Treasury
SOV. WLTH FUND
AGENT
CASH
COLLATERAL
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CASH
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Tri-Party Agent
KEY
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