

Embedding Liquidity Cost

Product nuances and Client pricing

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Background

Some issues highlighted by the liquidity crisis:

- Over reliance on wholesale and short term funding – robust business model?
- Insufficient understanding of liquidity drivers of products - funding v/s market liquidity and their interconnections; Is the ‘market’ a saviour or a reliable ‘counterparty’?
- Low monitoring of clauses embedded in client contracts which trigger significant liquidity call
- Contractual vs. reputational funding obligations
- Significant potential knock-on impact from idiosyncratic to market liquidity stress
 -partly driven by ‘low’ or ‘no’ cost of liquidity acknowledged and seen as a limited resource

Direct impact of ‘correctly’ charging for cost of liquidity reflected in:

- Banks’ adjusting their funding mix and risk appetite
- Emphasis on terming out of structural funding profile
- Optimising the “funding generative” potential of assets by exploring different secured funding avenues
- Search for ‘stable’ sources of funding
- Better understanding of contingent liquidity risks

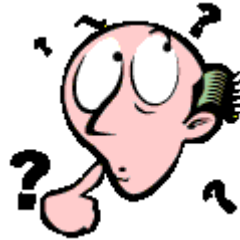


Result = Imperative to clearly embedding true liquidity costs in a) assessing performance management; b) Client Pricing, c) New Product Approval process

Embedding liquidity cost – in lending Products

Main Liquidity drivers:

- ❑ Banking book assets held to maturity
- ❑ Generally illiquid / non marketable category - Operational logistics and high haircut levels can make secured funding unattractive.
- ❑ Historically high degree of maturity transformation



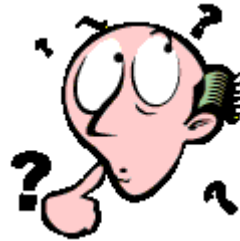
Considerations and Challenges:

- ❑ Term Liquidity Premium (TLP) - What Is it?
 - Country where funding is raised – differential funding costs; local regulatory constraints;
 - Pricing stability for originators
 - Is ANY maturity transformation benefit passed on to assets at all or not?
- ❑ Some factors to consider when incorporating TLP in client pricing:
 - Tenor – contractual maturity, effective ‘economic’ maturity, call options, revolvers (are they?)
 - Credit for any liquidity generative benefits – definite vs. potential benefit

Embedding liquidity cost – in Trading Assets

Main Liquidity drivers:

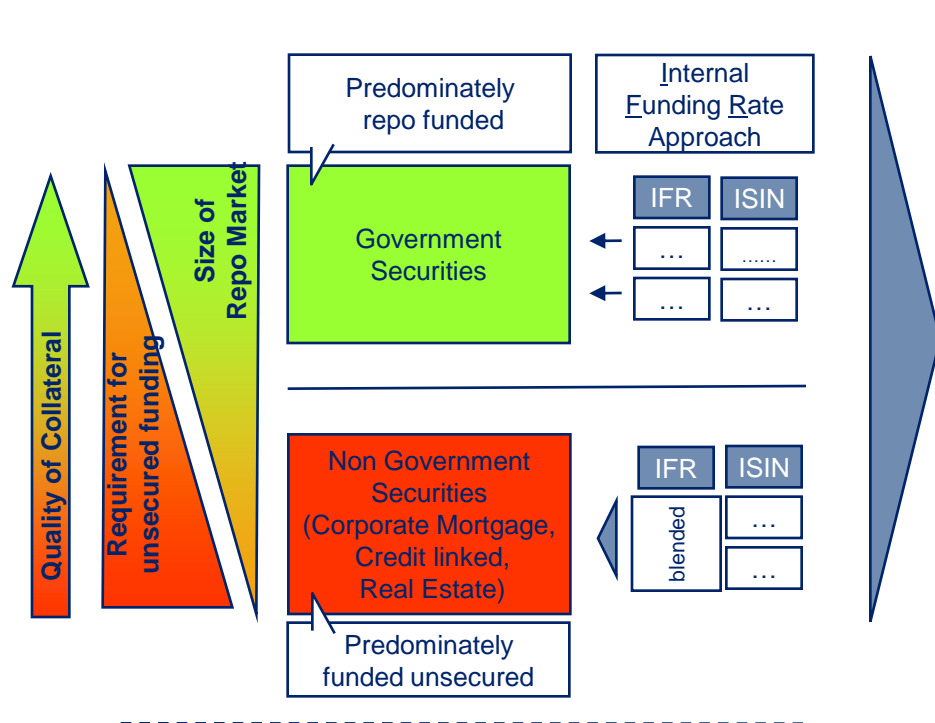
- ❑ Fixed Income securities, Equities, repo/reverse operations
- ❑ In 'BAU' good depth of market liquidity – facilitates secured funding; But in stress..
- ❑ Historically funding of assets heavily weighted towards very short term



Pricing Considerations and Challenges:

- ❑ Modelling asset portfolio liquidity to set minimum term funding requirements
- ❑ Funding rate can be finessed to recognise the impact of asset class & quality as:
 - Secured funding rates - realised based on a continuum of 'quality of assets', depth of market
 - Unsecured funding Collateral haircuts - but which haircut?
 - Illiquid assets: longer term funding on either a contractual or effective maturity basis
- ❑ Quality of asset does not always imply higher liquidity e.g. equity repo restrictions in certain countries
- ❑ Repo credits - reflecting varying asset repo-ability; Market depth, breath = stability?
- ❑ Collateral debits - For Short positions and collateral usage ?

A case study – Debt securities Portfolio



'New approach'

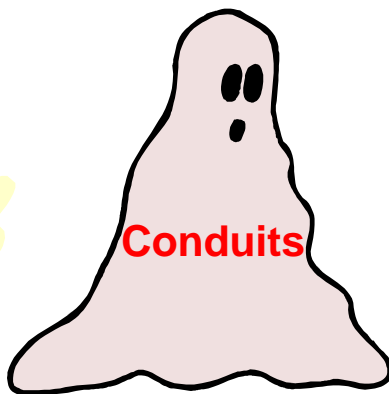
- Internally allocated rates dependent on
 - (i) Central Bank Eligibility
 - (ii) Credit Quality
 - (iii) Asset Type
 - (iv) Currency and
 - (v) Benchmark Curves
- Inputs to be based on readily available market data, therefore providing, transparency, validity and linkage of internal funding rates to external market rates.
- Haircuts and repo spreads will reflect the level of external markets. Liquidity stress and risk horizon are implicitly factored in the haircuts

'Legacy approach'

- The internal price of funds not closely reflecting external market levels for different securities
- Holders of higher quality assets subsidise others
- One blended funding rate driving wrong balance sheet behaviour
- Senior management do not have the levers of control necessary to change the shape of the Balance Sheet

'New approach – Pricing Components'

- **Secured Funding Portion**
 - Referenced on Libor / OIS differential
 - Repo spread
- **Unsecured Funding Portion (Funding Haircut Portion)**
 - Short term unsecured cost
 - 'Fee' reflects terming out of the unsecured funding for securities





Off Balance Sheet Products

Main Funding & Liquidity features:

- Derivatives and Contingent obligations - difficult to model liquidity especially when some derivative structures conceal real funding risk e.g. a long tenor TRS hedged with a series of shorter tenor TRS
- Funding cliff risk in stress situations e.g. Conduits CP liquidity, Derivatives MTM cash collateral posting
- In stress, reputation and franchise value risk to be considered

Pricing Considerations and Challenges

- CSA agreements – incentives?; Upfront funding trades ?
- Uncollateralised derivatives / one way / threshold CSA – Funding curves to be set right for traders; Sales incentive mechanism and Sales credits re-tooling; hard charge of funding to P&Ls
- Undrawn Commitment fee pricing - anticipated behavioural liquidity usage. ‘Are all committed lines created equal’?
- Rating downgrade triggers - a sliding scale of contingent liquidity cost given the degree of likelihood of clause breach
- ‘Vision’ - Base incentives on the characteristics of individual trades and their expected future funding requirements

Other Implementation Considerations and Challenges

New Product Approval:

- Assessment of liquidity nuances as part of mandatory stakeholder sign off process



Risk & Economic Assessment:

- Embed liquidity cost into all client & product pricing models
- Cost of liquidity included as a clear component in capital allocation and returns assessment process
- Always marginal cost of funding or based on target funding mix or...

Performance Management:

- Finance charging funding costs inclusive of liquidity cost to performance P&L
- Level of granularity of charge (low or high level)
- Finance / tax implications – especially for cross border charge flows
- Levels of complexity and cost / benefit analysis

Control Framework:

- Consistent rollout of pricing policies to eliminate internal arbitrage
- Pricing policy effectiveness monitored with regular MI and governance

'It's about changing behaviours and managing for risks which are embedded in our businesses'



Questions?