

Liquidity – a new asset class?

New opportunities for insurance and pension funds

Philip Turner, RBS Global Banking & Markets' (GBM) head of strategic product marketing, provides an insight into how the liquidity crisis has created significant opportunities for insurers and pension funds to monetise the liquidity premium associated with their asset and liability mismatch, while minimising credit risk

Insurance companies and pension funds regularly rebalance between credit and duration to manage their asset and liability management (ALM) risks. Since the financial crisis, yields on both credit and duration have fallen. Liquidity premiums, on the other hand, have increased materially – and long-term liquidity should be considered as an independent asset class for both yield enhancement and ALM (see figure 1).

Banks are paying more to access liquidity

Banks have traditionally relied on the wholesale markets to source their short-term funding, but this has become more expensive since the financial crisis, driving banks to seek different and longer-term means of funding their lending commitments.

The basic repo transaction is a good measure of the costs involved in sourcing liquidity in the wholesale market. Pre-crisis, a bank may have bought a AAA rated asset-backed security (ABS) and repoed it to another bank in order to finance the transaction, paying around 20% of the yield on the asset in exchange for the repo finance. Post-crisis, that cost has risen to around 60% of the asset yield (see figure 2).

This, in turn, has created a strong opportunity for pension funds and life insurers, who typically hold liquid assets against relatively illiquid liabilities, to make very attractive returns (between 40 and 160 basis points) by lending those assets to banks, taking less liquid assets as collateral in return (see figure 3).

Why are banks paying more?

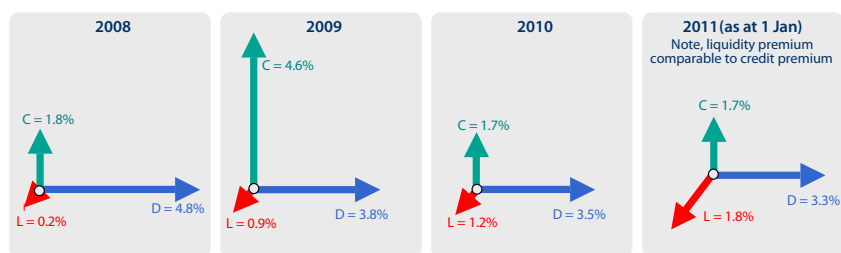
With funding no longer as cheaply available within the wholesale market or from central bank schemes (such as the European Central Bank's (ECB's) longer-term refinancing operations, which provided EUR 900 billion in 2009), banks are willing to pay higher premiums to access liquidity held elsewhere.

In addition, new regulatory rules, in particular under Basel III, have heightened the need to access readily refinancable liquid assets. Basel III will introduce a liquidity coverage ratio (LCR) and a net stable funding ratio in 2015 and 2018, respectively, which will set new, tighter thresholds on the amount of liquid assets banks must hold. The LCR calls for enough unencumbered, high-quality assets to survive a 30-day period of acute stress. At least 60% of these assets must be cash, central bank reserves and sovereign debt ('level 1 assets'). There is an aggregate cap of up to 40% in level 2 assets, including government-sponsored entities, non-financial corporate or covered bonds rated AA- or above – all of which are subject to a haircut of 15% for the purposes of calculating and satisfying the LCR {(stock of high-quality liquid assets / net cash outflows over a 30-day time period) ≥ 100%}.

Banks are focused on liquid government bonds (i.e., gilts, bunds, US treasuries) and will attach a greater premium to these assets. Any asset that complies with the liquidity rules under Basel III has a value,

1 Liquidity premium value trend

⇒ Duration premium (D) = 10-year euro swap rate
⇒ Credit premium (C) = iBoxx Euro Corp. Bonds
⇒ Liquidity premium (L) = iBoxx Euro Covered Bonds



Data for illustrative purposes only

however, there is a significant step down in premium for peripheral European government bonds or corporate bonds.

Depending on the tenor and type of assets – those both received and posted by the bank – banks may pay between 40 and 160bp as a liquidity premium. In many instances this premium exceeds that of credit risk. Before the credit crisis, when liquidity was more abundant, the liquidity premium was relatively insignificant compared to credit and duration premiums.

If covered bonds are used as a proxy for the cost of longer-term liquidity (i.e., assume there is no credit risk), then the liquidity premium was around 10–20bp pre-crisis. As the demand for liquidity increased sharply in the teeth of the crisis, spreads of around 200bp were seen in covered bonds. In 2010 spreads were around 120bp, but are beginning to move higher again in the face of tighter liquidity regulation from Basel III.

Life insurance companies and pension funds as liquidity providers

Large untapped resources of liquid assets are held within pension funds and insurance companies (see figure 4).

Figures from the Royal Bank of Scotland (RBS) show that total technical reserves for the top 30 European life insurers exceed EUR 4,000 billion, while European pension funds are estimated to hold assets of around EUR 5,000 billion, or potential as-yet-untapped liquidity premiums totalling EUR 162 billion¹. Both have an asset allocation that has a high proportion of government bonds and other liquid assets. RBS estimates that banks will fund between 10% and 15% of their funding requirements in a collateralised format. This represents approximately EUR 200 billion, which amounts to circa 5% of the current total fixed-income assets held by insurance companies and pension funds.

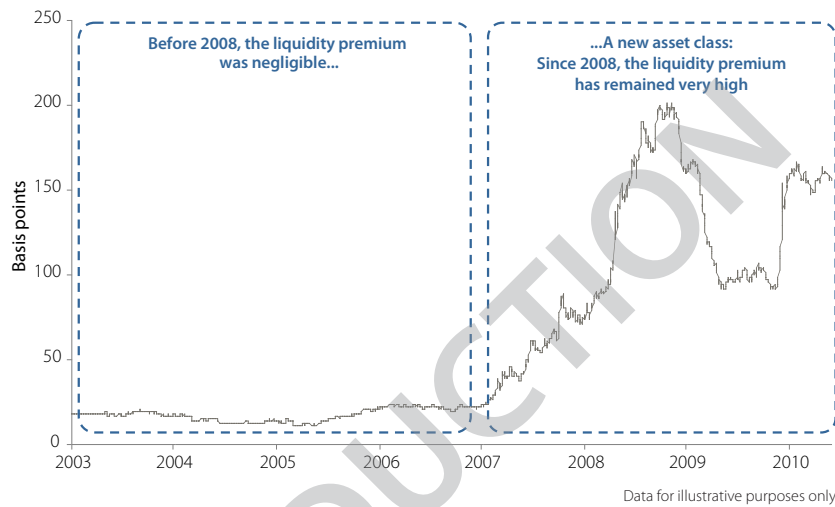
These assets are held by insurers to meet their liabilities. However, pension funds and insurance companies have a long liquidity duration, with expected liabilities that can have durations of between 10 and 20 years (depending on the country in question), with relatively predictable cash flows and limited vulnerability to liquidity shocks.

RBS has calculated that the corresponding liquidity duration of the assets covering the liabilities of a typical insurance portfolio² is in the range of 0.3–0.5 years.

¹ Based on 1.8% liquidity premium rate [iBoxx Euro Covered Bonds] as at 1 Jan 2011 (see figure 1).

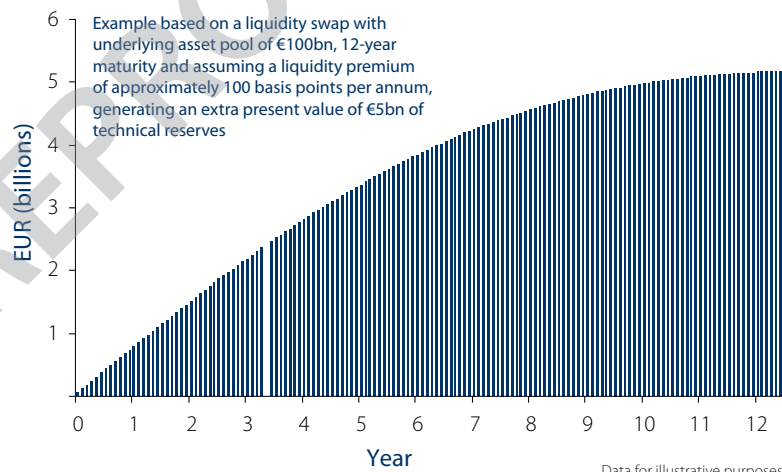
² For a large insurer the liquidity duration could be higher relating to potential to move the market.

2 Historic evolution of benchmark spreads in iBoxx euro collateralised bonds



Source: RBS & Bloomberg

3 Cumulative value earned through liquidity swap (12-year transaction)



Source: RBS & Bloomberg

4 Eurozone funding demand and potential supply

Matching what banks need with what life insurance and pension funds may offer	
UK & European banks rollover wall (EUR) Q4 2010 217 billion Q4 2011 900 billion Q4 2012 750 billion Q1-Q3 2013 400 billion Total 2,267 billion		[Europe only] Top 30 life insurance tech reserves 4,127bn 182% Fixed income allocation 2,640bn 116% Pension funds total assets 5,000bn 221% Fixed income allocation 1,500bn 66% Total 9,127bn 403% Total fixed income 4,140bn 183%	

Source: RBS calculations, ECB, Goldman Sachs, Barclays Capital

Insurance companies and pension funds could therefore materially increase their asset (liquidity) profiles while still having a strong buffer against stress scenarios.

From a regulatory perspective, Solvency II rules, which are due to come into force for insurers in 2013, will increasingly

penalise insurers for taking credit risk. But Solvency II will also allow insurers to recognise the illiquidity of their liabilities. This will therefore make liquidity transactions more attractive – allowing the insurer to earn an illiquidity premium for minimal credit risk capital.

A. Examples of market-standard transaction structures

Structure	Eligible assets	Maturity	Third party	Solvency II module
Tri-party repo	On an asset-specific basis/ in line with pre-agreed eligibility criteria	Six months to five years	Yes	Spread*
Total return swap	On an asset-specific basis/ in line with pre-agreed eligibility criteria	Six months to five years	No	Counterparty
Collateral swap facility	On an asset-specific basis/ in line with pre-agreed eligibility criteria	Six months to five years	Applicable	Spread*

*Spread risk exposure reduced to allow for risk-adjusted value of collateral

The liquidity asset class – challenges and opportunities

The key challenge for insurance companies and pension funds in a liquidity transaction is to obtain complete transparency around the collateral received in return for their liquid assets. The liquidity premium will be a function of the underlying collateral (i.e., complexity, correlation, haircut) received and the maturity of the structure.

RBS has developed a step-by-step approach to assessing liquidity transactions to make the operational side of this structure more transparent for clients. In this section, we highlight four key areas that RBS believes investors should be aware of.

1. Structures

There are a range of legal structures designed to meet the circumstances and needs of investors (see table A for examples). These can be tailored to meet accounting constraints, regulatory requirements (for example, Solvency II as well as current regulations), different types of collateral and the format with which the insurer or pension fund is most comfortable. Bilateral transactions between banks and investors will continue to drive innovation around liquidity as an asset class.

2. Liquidity premium – collateral versus maturity

The first dimension impacting liquidity premiums is quality of collateral. The more 'exotic' (ABSs and corporate loans versus government bonds), the higher the premium. RBS estimates that the liquidity premium differential on a five-year collateralised structure using investment-grade ABS versus the same using corporate loan collateral (post-credit enhancements from haircut), could be 10%–20%.

The second is maturity of the transaction. Figure 4 illustrates the 2011–2013 rollover wall, hence banks will pay a premium for structures with a tenor that extends beyond 2013. RBS research suggests that transactions with a tenor of five years provide investors with the maximum premium.

3. Operations

Providers will have operational concerns when presented with a liquidity proposition. This is mitigated by third-party agents, such as Euroclear, who act as a third-party clearing house for the collateral portfolio. They will report daily on the portfolio, settle instructions, price securities and process margin calls in response to daily price fluctuations.

All assets are ring-fenced, meaning that a bank cannot reclaim

the security in the event of default. Over-collateralisation protects against loss in case of forced sale in the event of default.

4. Valuation

The bank in question should bear the administrative responsibility of collateral valuation and can act as a valuation agent.

Despite this, the provider needs to be comfortable that it can value the collateral, either in house, through a third party or through agreed models. The bank providing the capital will value it on a day-to-day basis, but liquidity providers need to understand what they are exposed to.

A clear methodology for valuation needs to be put in place that incorporates issues such as the valuation processes and dispute resolution procedures.

In conclusion

Pre-crisis, liquidity was abundant and the liquidity premium negligible compared to credit and duration premiums. There was, therefore, no particular need to consider liquidity as an investment factor. However, with liquidity premium remaining elevated and reaching levels comparable to credit premium, it is important to consider the impact of this new asset class. Liquidity can not only provide extra yield – but it can also help to improve diversification outside of credit and interest rate risks.

Considering investing in a new asset class is usually not easy. For this asset class to reach its full maturity, it is important that both liquidity takers and liquidity providers work together and ensure that knowledge and information is properly shared.



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