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CEBS
Committee of European Banking Supervisors

Submitted via email to liquidity@c-ebs.org

CEBS CP28 - Consultation Paper on Liquidity Buffers & Survival Periods

London, October 27th, 2009

Dear Sirs,

Markit welcomes the publication of the CEBS *Consultation Paper on Liquidity Buffers & Survival Periods* and we appreciate the opportunity to provide you with our comments.

Markit is a leading global financial information services company with over 1,400 employees in Europe, North America, and Asia Pacific. Over 1,500 institutions use our independent services to value financial instruments, manage risk, improve operational efficiency or meet regulatory requirements. Markit provides pricing services for financial products across all asset classes including many instruments that do not actively trade. Some of our pricing services, such as Markit Totem, have been operating for more than 10 years providing the market with fair value levels in over-the-counter derivatives. Markit Totem collates market makers' best estimate of the mid-market price for all of the derivative instruments that they trade to then create a single composite price for each instrument and maturity that is covered by the service. Today, most major banks, broker dealers, buy-side institutions, and commodities traders will use Markit's services to assist them in the process of determining the fair value of their positions and in the preparation of their financial accounts.

Over the years, Markit has accumulated a significant amount of expertise not only in the pricing of financial products but also in the measurement of their liquidity and their credit quality, and we have experienced strongly increased interest from clients in the provision of such measures. We therefore feel well placed to comment on the issues related to the composition of liquidity buffers and we hope you will find our comments useful.



General Comments

Markit is supportive of regulatory efforts to design and implement liquidity regimes for financial institutions as they should, if properly designed, enhance the resilience of the financial system. Whilst we sympathise with calls to increase the amount and the quality of liquid assets that banks ought to hold, we feel that often insufficient resources are devoted to ensure that these assets are indeed highly liquid and we therefore strongly welcome your efforts to address this challenge. Whilst we are not in a position to discuss time horizons and stress testing we hope you will find our comments related to the composition of liquidity buffers helpful.

We agree that the liquidity buffer of a bank should be designed to ensure the generation of liquidity within a specific time horizon at a predictable value. We share the view that the core of the liquidity buffer should therefore be composed of cash and unencumbered assets that are both highly liquid in private markets and central bank eligible, while some flexibility seems appropriate for longer time horizons. As one cannot rely on the fact that central bank liquidity will always be available for a specific asset, measurement of the liquidity of assets in private markets in a reliable and objective fashion has to be the focus. We are of the view that the following recommendations will prove to be helpful when performing this challenging task:

- Whilst the official goal of your consultation is liquidity measurement, some statements in the consultation paper as well as in the open hearing suggest that you also consider factors other than liquidity to be relevant in the context of eligibility to liquidity buffers. As one should expect that eligible assets are unencumbered and can be sold at predictable values we would recommend clarifying that it is actually three distinct risk characteristics of a financial product that need to be considered to determine its liquidity generating capacity; they are
 - Prospective liquidity
 - Credit quality
 - Price volatility
- One has to take into account that liquidity of financial products will not only change over time but it will also differ between assets that are similar in many other respects, e.g. bonds by the same issuer. The use of any measure that is static and/or is supposed to apply to an entire asset class will therefore prove to be insufficient while the goal must be to create liquidity measures that are both dynamic and capture liquidity on an instrument level.
- You correctly point out that factors such as market structure, diversification of the investor base, and issuance size are some of the underlying drivers of the liquidity of an asset. However, we are of the opinion that trying to measure the drivers of liquidity will not deliver any meaningful results, as
 - One will never be able to come up with a complete list of all the many factors that can have an impact on the liquidity of an asset.



- Some of the factors, such as diversification of the investor base, can either not be observed or not be quantified.
- The impact of other factors, such as market structure, on liquidity is ambiguous and/or binary.
- It is unclear what the relative importance of the factors will be, which will also differ depending on the product.

That said we would recommend focusing on measuring the indicators of liquidity instead of its drivers, as they are generally observable and will create comparability both between asset classes and individual assets.

Measuring liquidity, credit quality and volatility of financial products

Acceptance of a product for inclusion in the liquidity buffer should reflect the ability of the holder to liquidate a position in the product at a predictable value within a certain time horizon. This expectation should be based on an informed and thoughtful judgement of the product's level of actual and measured liquidity, its credit risk, and its price volatility.

To minimise the burden on firms and regulators when deciding on eligibility, it is advisable to check whether these characteristics are quantifiable and whether there is a ready source for the relevant information. The measures used should provide an accurate reflection of the risk parameters that they are aiming to measure, while they should also be forward-looking, objective, observable, easy to source, and simple to compute. Only this combination of attributes will maximise transparency and minimise the cost and potential for uncertainty.

Fortunately the financial markets have evolved to provide independent indications of all three product characteristics. Market-based measures are easily observable and transparent, updated frequently, and built on both the expectations and actual transactions of all relevant market participants. While some additional research might be helpful in forming a consensus judgement as to which market-based measures are best suited as proxies for these risk properties and how they should be calibrated to avoid unintended consequences, the following is a summary of our current thoughts.

1. Measuring liquidity

The desired measure of liquidity of a financial product should reflect the holder's ability to sell it in private markets within a certain time horizon at a predictable value, a characteristic which one could call its "prospective liquidity". Unfortunately, liquidity is not only an important risk property of financial products, but it is also notoriously hard to measure. To start with it is worth noting that as prospective liquidity will not only differ significantly even between bonds of the same issuer but it will also change over time, the use of a simple, static assumption that a certain category of asset, such as government bonds, is liquid will certainly not suffice to properly measure liquidity. Furthermore, while we agree with your observations that a number of factors will have an impact on the liquidity of a specific asset, some of which are issuance specific, others institutional, for the reasons listed above we regard it as the only viable option to identify observable indicators of liquidity instead and directly measure them. The following are our thoughts on what should be regarded as the relevant indicators.



1.1. Trading activity

Whilst some market participants would advocate using the observed trading activity to quantify prospective liquidity, transactional volumes seem rather ill suited for this purpose:

- Daily trading activity can only ever be observed for a limited part of the universe of all tradable products, and only for a subset of these are trading volumes publicly available. Liquidity measures derived from actual trading volumes can therefore only be computed for a small number of products, and could not really serve as the benchmark liquidity measure for the population of the entire market.
- The fact that a product has not traded in the recent past should not be regarded as proof that it is not liquid, and the investor could not sell it quickly if he only wanted to. For example, a government bond might not attract any trading volume anymore since it has become off-the-run while it might still be quoted by all market makers. Experience has shown that such a bond can suddenly attract a lot of trading activity if it became the cheapest-to-deliver bond into the futures contract or if it was recommended in a research note.
- Finally, as the recent past has shown, the actual turnover of a product can dry up suddenly depending on the market situation, and past turnover has proved not to be a consistent and accurate predictor of the availability of liquidity in the future. Few would have expected for example that even segments of the government bond market that many regarded as the ultimate haven of liquidity suddenly became frozen during the financial crisis.

Given the described issues it is fair to say that, while it certainly does have value as additional input, transactional data alone will not suffice to measure prospective liquidity for the universe of relevant products.

1.2. Indicators of liquidity

Fortunately, there are a number of indicators that signal whether a product is liquid and the holder can expect to be able to sell it within a certain time horizon. Based on the daily contributions that we receive for the variety of products that are covered by our pricing services we have identified the following factors as reliable indicators of the depth and breadth of the market for a specific financial product, and hence of its prospective liquidity:

- The number of market makers measured by the number of accepted pricing contributors for the product, i.e. the ones that are accepted after rejecting many others based on the application of a number of cleansing algorithms;
- The agreement on the current price measured by the range of accepted contributions, i.e. the difference between the highest and the lowest accepted prices;
- The freshness of the data, i.e. how recently the contributions were last updated by the contributors.

All else being equal, a higher number of accepted contributors, a narrower range of accepted contributions, and a greater freshness of the data will signal a higher prospective liquidity for this product. On the basis of these inputs we have been computing Data Quality



Ratings for the whole range of products that are covered by our pricing services for many years¹. For example, for government bonds that are at least Aa3 rated we currently publish Data Quality Ratings for more than 1,200 bonds, hereby classifying them into four different categories of prospective liquidity. For an additional 150 of these government bonds we do not receive a sufficient number of contributions to compute a Data Quality Rating, implying that they will be less liquid than the rated ones.

We have also recently started integrating additional factors into our liquidity measurement concept, such as quotes data generated from the runs sent by market makers, as well as transactional data, where available. Specifically we are using the following additional factors as indicators of prospective liquidity:

- Bid/offer spreads, either observed or modelled,
- The number of unique quotes, and the
- Number of active market makers.

We will assign a higher prospective liquidity to products that trade with a tight bid/offer spread, appear on a number of runs every day, and are quoted by a larger number of market makers.

Whilst the above measures can be used to produce indications of prospective liquidity on an instrument by instrument basis on any given day it is worth keeping the following additional factors in mind:

- The liquidity measures as described above will provide an indication only of the "price liquidity" of a financial product, i.e. the ability to transact at a certain price in the standard market size. However, it should be clear that even for the most liquid product it can be quite challenging or even impossible to liquidate a position if its size is a multiple of the standard market size. Therefore, when measuring liquidity risk on an individual basis, users should capture the market standard size for the product, and then take the size of their position in relation to the standard market size into account in order to determine the so-called "market liquidity".
- Liquidity scores as described above are dynamic and will reflect changes in the underlying factors on a daily basis. Whilst we find it difficult to imagine that measures can ever be created to accurately predict the future liquidity of financial products, we would expect further research into their past performance to reveal patterns that can provide early warning signals for significant changes in future liquidity.

¹ A detailed description of the computation of our Data Quality Ratings is available on request.



2. Measuring credit quality and price volatility

At a time when undue reliance on credit ratings is regarded as one of the causes of the financial crisis it seems advisable to identify alternative measures of credit quality. We believe that the use of market-based measures such as implied default probabilities derived from Credit Default Swap (CDS) spreads should be considered for this purpose.

CDS spreads represent the market clearing price for credit risk of most names on an almost continuous basis, incorporating all available information processed by the relevant market participants. In our view, CDS spreads and implied default probabilities derived from them therefore represent a more reliable, accurate and dynamic measure of default risk of an entity compared to the ones derived from bond spreads or from credit ratings. Whilst a number of market participants already use market-implied default probabilities to measure credit risk, further research might be helpful in assessing the predictive quality of credit spreads, and deciding what actual measure of the credit spread should ideally be used to avoid potential undesired side effects such as pro-cyclicality or elevated volatility.

Markit collects millions of price points for CDS from all market makers every single day. We perform a number of cleansing algorithms, such as testing for stale data, flat curves, or outliers for the contributions that we receive, causing us to reject up to 60% of the data for some asset classes. On that basis, we compute daily consensus spread curves for approximately 3,100 entity tiers. Furthermore we capture and publish current bid/offer spreads for many names through dealer quotes, and compute intraday credit spread curves as an amalgamation of end of day contributions and quotes feeds.

The credit quality of the assets that are considered for the inclusion in the liquidity buffer could easily be measured by using default probabilities that are derived from these CDS spreads. However, simply using these probabilities as a measure of credit risk might introduce an undesired level of volatility and could result in being exposed to occasional technical pressures. It might therefore make sense to compute rolling averages to produce credit risk measures with a higher stability. Also, the use of exponentially weighted averages might be advisable to assign a higher importance to recent movements that incorporate relevant new fundamental information for the name. Finally, regulatory bodies could review and potentially change the weightings to reflect special market situations or avoid any undesired pro-cyclicality of these credit risk measures.

It is worth nothing that the use of CDS spreads and implied default probabilities to perform a "quality test" and determine the eligibility of a specific financial product to the liquidity buffer would also hugely simplify the ongoing task of monitoring the development of credit quality on a timely basis. Investors could simply rely on the markets to perform the task of checking for news and incorporating it into spreads, on a constant basis and at no additional cost.

Finally, CDS spreads, in addition to bond prices could be used to more accurately measure the price volatility of the relevant asset and hence the predictability of the value it could be sold at. Here, likewise, the major challenge would not really be the data input, but rather the exact way in which the volatility measure should be calculated.



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To summarise, we are of the view that the use of market-based indicators to measure the liquidity, credit quality, and price volatility of assets that are considered for inclusion in liquidity buffers would be beneficial for market participants as well as to regulators. Market-based indicators will provide a reliable, unbiased, dynamic, and scalable measure of the cash generating capacity of an asset on an instrument by instrument basis, and for different time horizons. Markit is open to engaging in a constructive dialogue with regulatory bodies and academics interested in establishing how to measure the risk properties of financial products based on a range of market based inputs and to develop and refine the definition of liquidity scores to make them most useful for your purposes.

We hope that our comments are of value to you. Please do not hesitate to contact us if you require further information or if you want to discuss any of our comments in more detail.

Kind regards,

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