Moody's Analytics

REGULATORY ANALYSIS

Analysis of FSA Regulation

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New FSA Liquidity Framework: Abstract

In response to the recent credit crunch, the FSA's December 2008 consultation paper proposes a major reform of liquidity supervision. The release of this paper represents a shift in the FSA's philosophy. In order to create a stable and effective UK banking system, the FSA will likely place equal emphasis on liquidity regulation and capital regulation going forward.

The new regime and the related reporting requirements will greatly enhance the ability of the FSA to understand emerging liquidity risks in individual institutions and across the economy. It will allow the FSA to conduct industry-specific analysis that can identify outlier business models and management practices. This increased understanding will empower the FSA to continually review the appropriate balance of quantitative rules, stress test-based analyses and discretionary guidance.

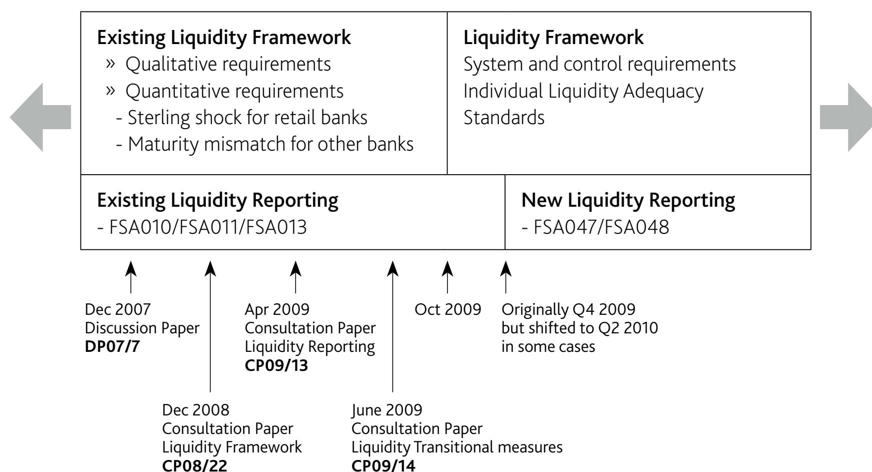
Institutions affected by the new regulation, including all banks and building societies, will need to meet a variety of new requirements, including daily and weekly consolidation of data, calculation of forecasted cash flows, application of stress tests and production of required liquidity risk reports. These institutions will need to meet all of these new requirements while managing liquidity consistently across entities in different jurisdictions.

Moody's Analytics has been extremely successful in providing regulatory risk management solutions. Fermat CAD is one of the leading Basel II solutions on the market. Moody's Analytics has created Fermat ALM | Liquidity Risk based on the same core foundation to address the specific challenges posed by the most recent regulatory shift.

In this document, we describe the new FSA liquidity framework, including the international context and the philosophy behind the FSA regulation. We provide a detailed overview of the businesses affected by regulations and the implementation schedule. Finally, we review the key features required by the FSA and provide an overview of how Moody's Analytics can work with UK firms to address these challenges.

History

TIMELINE



All UK-based financial institutions are obliged to comply with various qualitative and quantitative requirements relating to their liquidity management. The Financial Services Authority (FSA) specifies which liquidity reports each firm needs to submit depending on which category of institution it belongs to. Until recently, all such liquidity reports were required to be submitted to the FSA on a quarterly basis.

In response to the market turbulence that affected banks and building societies[1] during 2007 and with a view to learning lessons from how institutions managed the crisis, the FSA decided to consult the industry on the issue of liquidity requirements by publishing a discussion paper (DP 07/7) in December of that year. Following these consultations, it issued a consultation paper (CP08/22) in December 2008, which set out its views on the future of liquidity regulation within the UK. This paper proposed a new quantitative regime for financial institutions in the UK aimed at "anchoring the stability of their liquidity positions".

International Context

The FSA consultation paper is one of various global and pan-European reports and regulations on liquidity that have appeared since 2007. We refer to two such initiatives below.

BASEL COMMITTEE ON BANKING SUPERVISION (BCBS)

In June 2008, the BCBS revised its earlier paper on *Sound Practices for Managing Liquidity in Banking Organizations* by issuing a new report: *Principles for Sound Liquidity Risk Management and Supervision*.

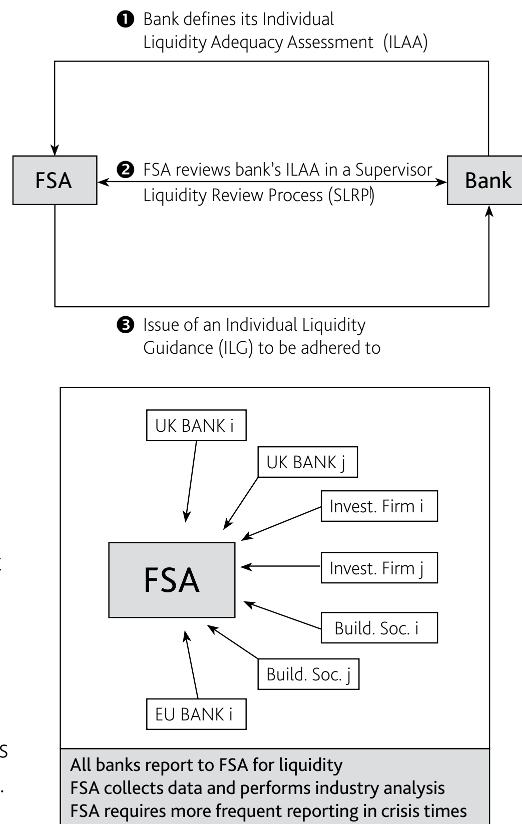
This report comprised 17 principles, eight of which discussed details of liquidity measurements that the committee was proposing should be put in place (e.g. time schedule, cushion of liquidity, financial instruments). The other principles addressed liquidity governance, disclosures and the role of the supervisor.

[1] A building society is a financial institution, owned by its members, that offers banking and other financial services, especially mortgage lending. At the start of 2008, there were 59 building societies in the UK with total assets exceeding £360 billion.

COMMITTEE OF EUROPEAN BANKING SUPERVISORS (CEBS)

In September 2008, the CEBS issued its *Technical Advice to the European Commission on Liquidity Risk Management*, containing 30 principles-based recommendations.

This report advised that supervisors should apply a proportionate approach to supervision, allowing for larger banks to eventually be granted authorisation to rely on their own internal methodologies and models once these have been assessed and approved by the local supervisor.



In March 2009, the CEBS issued an interim report on liquidity buffers and survival periods. This was followed by an additional consultation paper (CP28) that provides guidelines on how to determine the liquidity buffer and the survival horizon.

Achieving a common framework among regulators remains an objective for CEBS, although this will take some time given that countries have established different approaches on liquidity for years.

Philosophy of FSA Regulation

In a review published in March 2009, FSA chairman Lord Adair Turner proposed a number of actions viewed as necessary to create a stable and effective banking system. These included the recognition that liquidity regulation and supervision should be of equal importance to capital regulation.

Given the critical importance of liquidity regulation, reforms need to include not only far more effective ways of assessing and limiting the liquidity risks that individual institutions face but also a better understanding of market-wide liquidity risks.

The FSA's December 2008 consultation paper proposes a major reform of liquidity supervision. It will put in place:

» Significantly enhanced reporting requirements focused on detailed mismatch ladder analysis and regular outputs on some balance-sheet items that are applicable to all financial institutions.

» Regulations that will require all financial institutions to focus on the combined liquidity effect of their holdings of liquid assets, the maturity of their assets and liabilities (on both a contractual and a behavioural basis) and the term, diversity and reliability of funding sources. These regulations will be implemented by means of the Individual Liquidity Adequacy Standards (ILAS).

Simpler mortgage banks and building societies will be subject to a Simplified ILAS regime, under which a quantitative "buffer ratio" rule will restrain the institution's reliance on wholesale funding.

Larger banks will, however, be subject to the full ILAS regime, which requires each bank to submit to the FSA a detailed Individual Liquidity Adequacy Assessment (ILAA). The FSA will then subject the ILAA to a Supervisory Liquidity Review Process (SLRP). On the basis of this review, the FSA will provide the bank with an Individual Liquidity Guidance (ILG) document containing specific directives to which the bank must adhere, including the required level of its buffer. The FSA will require each firm to carry out an ILAA at least annually to ensure that it serves its purpose.

This new regime will greatly enhance the ability of the FSA to understand emerging liquidity risks

This new regime and the related reporting requirements will greatly enhance the ability of the FSA to understand emerging liquidity risks in individual institutions and across the economy. It will allow the FSA to conduct industry-specific analysis that can identify any outlier business models and management practices.

This increased understanding will also allow the FSA to continually review the appropriate balance of quantitative rules, stress test-based analyses and discretionary guidance.

According to the FSA, some of the key effects of the new regime will be as follows:

- Changes in the extent and nature of maturity transformation in the overall banking system.
- Making financial institutions more aware of liquidity costs and ensuring they have the appropriate internal fund transfer pricing systems and processes in place.
- Ensuring that banks hold more liquid assets and a greater proportion of those assets held in government securities.
- Providing an incentive for banks to encourage more retail time deposits and less instant access and reliance on short-term wholesale funding.
- A check on rapid and unsustainable expansion of bank lending during favourable economic times.

[2] A full-scope investment firm satisfies the following conditions:

- it is a firm; and
- its head office is in the United Kingdom and it is not otherwise excluded from the definition of a BIPRU firm under BIPRU 1.1.17 R (Exclusion of certain types of firm from the definition of a BIPRU firm):
  - an incoming EEA firm;
  - an incoming Treaty firm;
  - any other overseas firm;
  - an ELMI;
  - an insurer; and
  - an ICVC (Investment Company with Variable Capital)

[3] See BIPRU 12.6

Businesses Affected by Regulations

The FSA regulations apply to all banks, building societies and full-scope investment firms[2] as well as to all groups comprising such firms.

In order for a firm to take advantage of the Simplified ILAS regime[3] and be subject to the standardised buffer ratio, it will have to meet all of the following criteria:

» It has no foreign currency exposures in assets or liabilities.

» Wholesale funding accounts for no more than 30% of total funding.

» The material majority of assets are mortgages secured on residential property.

According to the FSA, approximately 600 firms are affected by the ILAS proposals (including the Simplified regime). The table below provides a breakdown of the categories of financial institutions present in the UK.

Type of Firm	Number of Firms
Building societies	58
UK Banks	157
Full-scope investment firms	244
Branches of foreign banks	202
Limited license / limited activity firms	2139

[4] This implementation date was revised in CP09/14 issued in June 2009. The previous date was October 2009.

Implementation Schedule

ILAS

All firms subject to ILAS will be required to assess the adequacy of their liquidity resources and to apply quantitative requirements from April 2010.[4] The timetable for completion of the SLRP (i.e. the process by which the FSA reviews the ILAA submitted by the institution) is to be agreed between the FSA and the firms affected. A transitional period will be in place from the fourth quarter of 2009 to the end of March 2010.

Simplified ILAS

The FSA consultation paper is one of various global and pan-European reports and regulations on liquidity that have appeared since 2007. We refer to two such initiatives below.

Reporting

Schedule information was provided within the CP09/13 document issued in April 2009.

Rules and guidance come into effect Q4 2009, with new reporting arrangements going live in Q1 2010.

	Date
Consultation on CP08/22 closed	4 March 2009
Responses to Reporting CP09/13 due by	15 July 2009
Transitional CP to be published	Q2 2009
Policy Statement on new regime published	Q3 2009
Rules and guidance come into effect	Q4 2009
New reporting arrangements go live	Q1 2010

CP09/14 proposed that the new quantitative reporting requirements will come into force as each class of firms becomes subject to the new regime.

The implementation of the new liquidity regime will lead to substantial costs for the targeted firms. These costs may include:

- Meeting FSA reporting and documentation requirements.
- Improved liquidity risk management, recordkeeping and monitoring systems and processes.
- New IT infrastructure.
- Increased staffing and employment of professional advisers and consultants.
- Other compliance costs that may arise, such as administrative costs derived from demands for more and better information from investors and other counterparties on the liquidity risk profile.

[4] This implementation date was revised in CP09/14 issued in June 2009. The previous date was October 2009.

Key Features Required by FSA

The key features required by the FSA are summarised in the table below.

Features required by FSA	Moodys Analytics Solution
Weekly reporting	✓
Ability to switch from weekly reporting to daily	✓
Ability to issue reports within a single day	✓
Granular reporting	✓
Stress testing capabilities	✓
Reports on Legal Entity/Currency/Business Line (analysis axis)	✓
Robustness	✓
Calculation of Liquid Asset Buffer	✓
Liquidity costs in FTP	✓

Integration of cost of liquidity within internal pricing

According to the FSA, banks should adequately integrate the cost of liquidity within their internal pricing guidance. This will lead banks to:

It will be the banks' responsibility to demonstrate that they are making the appropriate efforts to include liquidity cost in their fund transfer pricing (FTP).

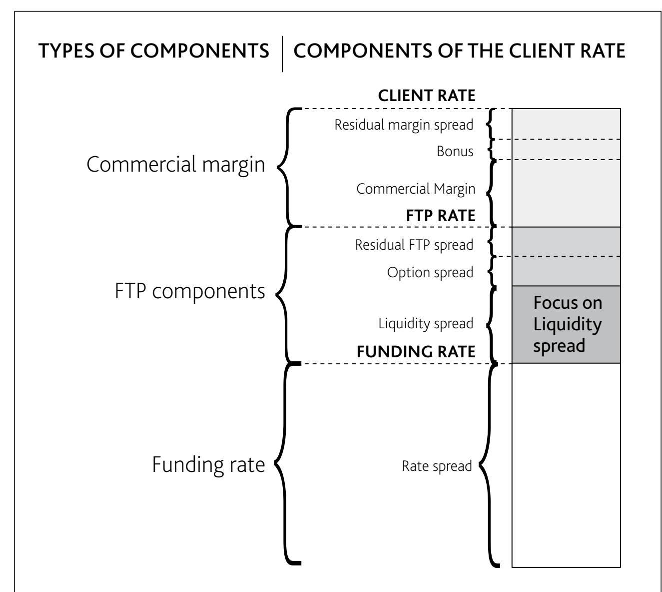
» Ensure that the cost of liquidity is correctly quantified and, if necessary, enhance their quantification techniques.

» Measure performance across their business lines.

» Establish an approval process for new products taking liquidity into account as a key component of their internal pricing.

The cost of liquidity has sometimes been ignored or mis-priced by banks in their internal pricing policies. It will be the banks' responsibility to demonstrate that they are making the appropriate efforts to include this liquidity cost in their fund transfer pricing (FTP).

Actuarial formulae can be implemented in order to ensure this pricing is reflected in both maturing and non-maturing instruments by means of replicating portfolios.



Why Moody's Analytics is the Ideal Partner for FSA Compliance

Moody's Analytics is the ideal partner for assisting UK financial institutions in ensuring FSA compliance thanks to our robust, fully integrated, software solution: Fermat ALM | Liquidity Risk.

Fermat ALM | Liquidity Risk offers a central datamart to consolidate exposures, fast-processing, a flexible cash-flow engine and reporting tools needed for FSA compliance

In addition to the major liquidity risk features of Fermat ALM | Liquidity Risk – such as a central datamart to consolidate exposures and a fast-processing and flexible cash-flow engine – the system also includes dedicated features to assist financial institutions in their efforts to ensure FSA compliance and the necessary transformations they may need to go through.

Producing regulatory reports for FSA compliance

The Fermat | Regulatory Reporting Tool is built upon a core reporting engine including:

- A data model for the results of liquidity indicator calculations (import tables) that allows granular or pre-aggregated results to be imported.
- A report editor/builder allowing the user to define the required reporting dimensions.
- A built-in audit mechanism allowing for verification of the reporting process.
- Various options to adjust final results.

When bundled with the Fermat ALM | Liquidity Risk calculation engines, this core reporting engine can directly use as inputs the liquidity risk outputs generated by Fermat in addition to results imported from other systems.

The Fermat | Regulatory Reporting Tool can provide as standard the following reports at any frequency required by the FSA:

Data Item	Frequency
ILAS Firms	
Key data item: Enhanced Mismatch Report, including daily flows out to three months	Weekly, with the ability to report daily (switches to daily in crisis times or if firm deviates from ILG)
Pricing Data	Daily Pricing, submitted weekly
Marketable Assets Report	Monthly
Funding Concentration Report	Monthly
Retail Funding Report	Quarterly
Off-Balance Sheet Report	Monthly
Clearing and Settlement Banks Only	
Intra-day Liquidity Report	Daily

Catering to both Simplified ILAS and ILAS frameworks

Moody's Analytics is able to address both the Simplified ILAS framework and the ILAS framework within the same platform.

The solution for Simplified ILAS can be easily parameterised with our implementation consultants. These parameters should take into account the FSA requirements relating to:

- Stress-testing scenarios
- Amortisation profiles
- Liquid asset buffer calculation

Also included in the Moody's Analytics software solution are standard tools to help banks assess their ILAA and then perform in line with their ILG. This will assist banks in their compliance with FSA stress-testing requirements.

Performance will become critical for those firms that will need to submit reports on a weekly basis, and upon FSA request, on a daily basis.

Processing time

Performance will become critical for those very large banks that will need to submit reports on a weekly basis, and on a daily basis upon FSA request (especially in crisis times).

Managing millions of deals with a cost-saving hardware platform is a standard requirement for the Fermat platform—it is already live in production with similar volumes at sites around the world.

Simulation capabilities

The Fermat ALM | Liquidity Risk engine allows banks to perform flexible stress-testing simulations. It enables banks to perform simulations on the following factors:

- Market factors such as yield curves, FX rates, volatilities
- Clients' behaviour:
  - Amortisation profile
  - Stickiness
  - Prepayments
  - Delayed payments
- Saleability including consideration of haircuts
- New business forecasts

Fermat ALM | Liquidity Risk also allows banks to define different assumptions for different groups of contracts. Different assumptions for wholesale funding can therefore be set from those relevant for retail time deposits, for example.

INDUSTRY LEADER IN REGULATORY SOLUTIONS

Moody's Analytics has been extremely successful in providing regulatory risk management solutions. Fermat CAD – which shares the same core foundation as Fermat ALM | Liquidity Risk – is one of the leading Basel II solutions on the market.

Moody's Analytics offers an established regulatory platform

Thanks to our years of experience and our established regulatory platform, Moody's Analytics is well suited to support the FSA's liquidity requirements. For example:

- Fermat ALM | Liquidity Risk is able to compute a Liquidity Asset Buffer (similar to Regulatory Capital in the Basel II environment) and ensure that it is compliant with the firm's ILG.
- The pre-defined Liquidity Asset Buffer that Simplified ILAS firms will have to hold is comparable to the 8% of Risk-Weighted Assets that the firm is required to hold as Regulatory Capital.
- Fermat ALM | Liquidity Risk is also building on its experience with regulatory reporting for Basel II by providing – on top of its liquidity management solution – functionality to aid users in meeting their regulatory liquidity reporting requirements for the FSA.

Finally, Fermat ALM | Liquidity Risk sits on top of a smart, dedicated risk datamart in which banks' customer accounts can be imported, consolidated and checked for consistency, allowing for a fully detailed audit from the regulatory report to input data.