

# **Individual Liquidity Adequacy Standards**

## **Individual Liquidity Adequacy Assessment (ILAA)**

### **Submission Information**

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# Contents

1. INDIVIDUAL LIQUIDITY ADEQUACY ASSESSMENT (ILAA) .....	3
Introduction .....	3
ILAA Purpose and Use .....	3
Quantitative Liquidity Data .....	4
ILAA Stress Testing .....	4
2. STRUCTURE AND FORMAT OF THE ILAA .....	5
Section 1 - ILAA Summary .....	6
Section 2 - Discussion of ILAA Process, Assumptions and Results .....	7
Part 1 - Background .....	7
Part 3 - Liquidity Adequacy .....	8
Part 4 - Aggregation and Diversification.....	10
Part 5 - Internal Challenge and Approval.....	11
Part 6 - Use of the ILAA in the Firm .....	11
Section 3 – Appendices .....	11
3. ILAA LIQUIDITY RISK MANAGEMENT AND STRESS TESTING .....	12
Idiosyncratic Liquidity Stress .....	12
Market-wide Liquidity Stress.....	12
Combined Idiosyncratic and Market-wide Liquidity Stress .....	12
Liquidity Risk Drivers .....	13
Wholesale Secured and Unsecured Funding Risk .....	13
Retail Funding Liquidity Risk.....	14
Intra-day Liquidity Risk.....	16
Intra-group Liquidity Risk .....	17
Cross-currency Liquidity Risk.....	18
Off-Balance Sheet Liquidity Risk.....	18
Franchise Viability Risk.....	20
Marketable Assets Risk.....	21
Non-marketable Assets Risk.....	22
Funding Concentration Risk.....	22
4. SUPERVISORY LIQUIDITY REVIEW PROCESS and INDIVIDUAL LIQUIDITY GUIDANCE .....	23
Supervisory Liquidity Review Process (SLRP) .....	23
Individual Liquidity Guidance (ILG) and Regulatory Intervention Points.....	24
5. SIMPLIFIED FIRMS .....	25
ILSA.....	25

# 1. INDIVIDUAL LIQUIDITY ADEQUACY ASSESSMENT (ILAA)

## Introduction

The aim of the Individual Liquidity Adequacy Assessment (ILAA)<sup>1</sup> is to help firms ensure they comply with the overall liquidity adequacy rule and to enable the FSA to assess firms' compliance with that rule more effectively.

The general characteristics of the ILAA are that it must be proportional to a firm's business model and risk appetite, should take into account all sources of liquidity<sup>2</sup>, and it must include an the firm's assessment and evaluation of its compliance with the qualitative requirements of BIPRU 12.3 and 12.4.

Firms are required to undertake an ILAA annually or more frequently if changes in a firm's business strategy, balance sheet, the nature or scale of its activities, or its operational environment suggest that the level of liquidity resources is no longer adequate. A firm will submit its ILAA to us only when we request it, or if the firm determines that its liquidity position has changed to a point where it is required under Principle 11 to notify us.

If a firm is part of a wider financial group, it may be appropriate for that firm's ILAA to take into account the financial resources available to it from other parts of its group, but only to the extent that such reliance is permitted by previous agreement with us, for example, under an intra-group liquidity modification.

## ILAA Purpose and Use

A key function of the ILAA is to inform a firm's Board of the ongoing assessment and quantification of the firm's liquidity risks, how the firm intends to mitigate those risks, and how much current and *future* liquidity is required.

The ILAA document is also how the firm demonstrates and explains to us its internal liquidity adequacy assessment process. While the ILAA may be based on existing internal documentation, we will expect to have a bespoke ILAA document prepared covering the key results and issues as outlined in BIPRU 12.5. All behavioural assumptions affecting liquidity such as, *inter alia*, the stickiness of on-demand deposits must be evidenced and fully documented in the ILAA.

As we will be forming many of our views based on the information contained in the ILAA, it is expected that a firm's governing body has formally approved its contents. We expect the ILAA to be easily understood and contain all of the relevant information necessary for both a firm and us to take an informed decision as to the appropriate amount of liquidity a firm should hold, and form a view on the firm's liquidity risk management process and methodologies as required in, among others, BIPRU 12.3 and 12.4.

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<sup>1</sup> Simplified ILAS firms are not required to undertake an ILAA, but must undertake an Individual Liquidity Systems Assessment (ILSA) (PS09/xx Chapters 5.16 and 7.7).

<sup>2</sup> If a firm is part of a wider financial group, it may be appropriate for that firm's ILAA to take into account the financial resources available to it from other parts of its group, but only to the extent that such reliance is permitted by previous agreement with us, for example, under an intra-group liquidity modification.

Importantly, in our Supervisory Liquidity Review Process (SLRP)<sup>3</sup> we will undertake a review of a firm's compliance with BIPRU 12.3 and 12.4, and as a result of this review, we may vary the quantity of liquid assets a firm is required to hold, and / or vary the size of the liquidity outflow requirement that a firm has to meet under the 2-week to 3-month ILAA-based stress tests<sup>4</sup>.

We would expect technical information on stress testing and risk management methodologies, models, and all other work carried out to validate the approach and stress testing results (e.g., board papers and minutes, internal or external reviews) to be included in the ILAA, but to ensure that the ILAA remains a succinct and risk management focused document, these should be attached as appendices.

We expect a fair degree of variation in ILAA results since firms' business models and risk profiles differ. However, following the format set out below will be useful as it covers most of the matters that would be the subject of our ILAA review and, if not provided in the initial ILAA submission, are likely to be requested through follow-up discussions with the firm.

### **Quantitative Liquidity Data**

The ILAA is a significant component of the Individual Liquidity Adequacy Standard (ILAS), and the foundation of the ILAS process is robust and accurate liquidity information from firms. ILAS reporting requirements call for a new liquidity cash flow mismatch returns (FSA 047 and FSA 048), which provide us with the key contractual liquidity information necessary to undertake detailed and granular analysis of a firm's liquidity positions, and considers all major aspects, both on and off-balance sheet, of a firm's cash flows. Moreover, it establishes a common framework across firms for reporting liquidity positions.

Accordingly, firms will be required to include current and accurate FSA 047 and FSA 048 returns as part of its ILAA submission. This is in addition to any other internal liquidity information and reports the firm may use or rely on in its liquidity management operations and include as part of its ILAA submission.

The following sets out a suggested structure for the ILAA submission document. Firm's should accept that using this structure is not a substitute for being aware of, and complying with, the relevant liquidity risk management rules.

### **ILAA Stress Testing**

The stress tests firms' ILAAs are expected to contain are:

- name-specific stress;
- market-wide stress; and
- a combination of the two.

Employing a prescriptive approach to the ILAA stresses has the benefit of the stresses being applied unambiguously and consistently across all firms.

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<sup>3</sup> Refer to Section 4.

<sup>4</sup> Refer to the ILAA Stress Testing section beginning on page 5.

For the purposes of conducting the ILAA, a firm must calculate its net outflows *prior to* management actions, and calculate outflows separately for each risk driver. These calculations will be an important factor in determining and setting a firm's liquidity buffer.

We have identified the following ten risk drivers<sup>5</sup>, or sources of liquidity risk, that would crystallise as a result of a stress event. These are:

- Wholesale secured and unsecured funding risk;
- Retail funding risk;
- Intra-day liquidity risk;
- Intra-group liquidity risk;
- Cross-currency liquidity risk;
- Off-balance sheet risk;
- Franchise viability risk;
- Marketable assets risk;
- Non-marketable assets risk; and
- Funding concentration risk.

A firm's ILAA should consider the effect the prescribed stresses would have on each of these sources of liquidity risk and the gross level of outflows that would occur.

During the initial two week period of stress, firms will have to meet stressed outflows across these risk drivers solely on the basis of its net outflows prior to management actions, and separately for each risk driver. Moreover, the ILAA must be proportionate to the nature, scale and complexity of the firm's business and it must be documented in full, to include all assumptions used in the stress tests over and above those required.

## **2. STRUCTURE AND FORMAT OF THE ILAA**

This section provides information on how we expect an ILAA to be structured.

A firm's ILAA should be in three sections as follows:

1. Summary of Liquidity Risk Management and Stress Testing Results.
2. Detailed discussion of the ILAA process, assumptions and results, to include both qualitative and quantitative dimensions<sup>6</sup>, among others:
  - a full and complete review of the firm's liquidity position, access to liquidity, composition of its liquid assets, contractual and behavioural wholesale and retail

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<sup>5</sup> Each of these risk drivers are discussed in detail in Section 3.

<sup>6</sup> Reference BIPRU 12.3, 12.4, and 12.5

deposit assumptions, and secured and unsecured funding profiles under business-as-usual conditions and under the prescribed stress tests across the ten risk drivers;

- a review of liquidity risk governance;
  - a statement of the firm's liquidity risk appetite;
  - liquidity stress testing policies, process, and methodologies;
  - the assumptions used for liquidity stress test scenario development and assumptions defining operational constraints on stress testing and management remedial actions;
  - Contingency Funding Plans;
  - management information and reports, along with processes and procedures used for the identification, measurement, monitoring, and management of liquidity risk within the firm; and
  - a review and justification of the firm's assessment of its liquidity requirement.
3. Appendices, which would likely contain, among other important and relevant information:
- copies of all working papers, models, policies, etc, that were used in the development of, and that support, the ILAA and its conclusions.

Each of these sections is discussed in detail below.

### **Section 1 - ILAA Summary**

The purpose of the ILAA summary is to present an overview of the firm's ILAA methodology and prescribed stress test results. The summary would typically include, but not be limited to:

- the purpose of the ILAA, which regulated entities it covers, and if the ILAA is being completed on a group basis;
- the composition and amount of liquidity the firm considers it should hold under a business-as-usual scenario and under the required combination stress test scenario required and prescribed under BIPRU 12.5;
- the firm's assessment of the adequacy of their liquidity risk management processes;
- a discussion of the financial position of the business, including the strategic position of the firm, its balance sheet strength, and projected future profitability;
- a description of the liquidity risk management governance, process and methodologies, and how the firm intends to manage liquidity going forward;

- a summary table outlining the firm’s risk appetite and liquidity risk limits, its position against the liquidity limits as at the date of the FSA048, and a reconciliation of the liquidity risk limits to the FSA048 (ie, demonstrate how the liquidity limits are reflected in the FSA048);
- a commentary on the most material liquidity risks, why the level of risk is acceptable or, if it is not, what mitigating actions are planned;
- a commentary on significant issues where further analysis and decisions are required; and
- a commentary on the area or department within the firm that carried out the ILAA, how the ILAA process and results have been challenged, and who has approved the ILAA.

## **Section 2 - Discussion of ILAA Process, Assumptions and Results**

### ***Part 1 - Background***

The Background section will cover the relevant organisational and historical financial data for the firm.

For example, areas addressed would include, but not be limited to, group structure (legal and operational), operating profit, profit before tax, profit after tax, dividends, shareholders funds, liquidity resources held and as compared with regulatory requirements, customer accounts, deposits by banks, total assets, and any conclusions that can be drawn from trends in the data which may have implications for the firm’s future.

### ***Part 2 - Current and Projected Financial and Liquidity Positions***

This section will explain the present financial position of the firm and expected changes to the current business profile, the environment in which it operates, its projected business plans (by lines of business if relevant), projected financial position, and planned future sources of liquidity.

An important requirement to establish the current liquidity position of the firm is the submission of current and up-to-date FSA 047 and FSA 048 returns detailing the contractual liquidity position as at the effective date of the ILAA. Accordingly, we would expect all ILAA submissions to be accompanied by current FSA 047 and FSA 048 returns.

The financial information underpinning the ILAA should be based on the firm’s balance sheet as at the effective date of the ILAA.

Importantly, the ILAA should also contain a section showing the firm’s projected liquidity positions as driven by the firm’s business plan. Conducting the ILAA against the future-state balance sheet will provide necessary and important liquidity risk information, specifically on franchise risk (described below). The analysis will indicate the amount of liquidity necessary to finance the firm’s growth objectives and to help determine if the firm can grow its business safely within its liquidity risk appetite.

To help substantiate the financial projections suggested by the firm's business plan, a copy of the firm's current Board-approved business plan should be included in the appendices, along with all relevant board minutes and resolutions evidencing the formal adoption of the business plan.

The firm should provide in this section a summary listing of the liquid assets it relies upon as a source of liquidity. This should provide full details of each security held to include, among others, the issuer, rating, CUSIP/ISIN, price, coupon and current yield.

### ***Part 3 - Liquidity Adequacy***

This section will set out the approach, methodology and results of the firm's liquidity stress testing and discuss the amount of required liquidity indicated by the ILAA.

For example, this section would describe the firm's liquidity risk appetite and discuss how it is used to define and assess liquidity levels and limits, a discussion of how the liquidity stresses have been developed and how they relate to and incorporate the liquidity risk drivers (shown below). This would be followed by a detailed review and analysis of the liquidity adequacy of the firm.

The information provided for this section would include, among others, the following.

*Risk appetite, liquidity risk limits, and position against limits:*

- a full and clear articulation of the firm's liquidity risk appetite and a discussion of why the risk appetite is 'correct';
- an outline of all relevant liquidity risk management limits as derived from the risk appetite and a discussion of how the limits support the risk appetite;
- a firm is expected to have limits for each of the ten liquidity risk drivers (however, not all limits will necessarily be quantitative; some may be qualitative and describe subjective risk metrics);
- the limits and position against limits under 'normal' and 'stressed' liquidity environments should be summarised as a table in this section of the ILAA (with a full and complete discussion of positions against limits included in the appendices); and
- a full reconciliation of the firm's liquidity limits (and its current liquidity position against the limits as at the effective date of the FSA 047 and FSA 048, and ILAA) to the current FSA 047 and FSA 048 submitted as part of the ILAA.

#### *Timing*

This section will set out the timeframe covered by the ILAA, for example:

- the effective date of the ILAA together with consideration of any events between the effective date and the date of submission that would materially impact the ILAA, together with a discussion of their potential affects on liquidity; and
- details of, and the rationale for, the time period over which liquidity has been assessed.

## *Risk analysis*

This section will discuss the firm's approach, methodology and liquidity analysis undertaken to perform the ILAA. Areas to be covered are, among others:

- the firm's analysis of how and why its liquidity changes under the prescribed liquidity stress tests as set out in BIPRU 12.5;
- an assessment of the liquidity risks associated with each of the following ten liquidity risk drivers under the prescribed stress test in BIPRU 12.5:
  - Wholesale secured and unsecured funding risk;
  - Retail funding risk;
  - Intra-day liquidity risk;
  - Intra-group liquidity risk;
  - Cross-currency liquidity risk;
  - Off-balance sheet liquidity risk;
  - Franchise-viability liquidity risk;
  - Marketable assets risk;
  - Non-marketable assets risk, and
  - Funding diversification risk;
- the ILAA will also consider and discuss the impact of the stress test, both with and without the application of management actions (all assumptions driving or affecting stress testing and any mitigating actions must be documented and included as part of the ILAA - mitigating actions must be cross-referenced to the firm's contingency funding plan);
- the firm's ability to meet the cash outflows that will likely occur under each of the liquidity risk drivers following the onset of the prescribed liquidity stress will first depend on the size and quality of its liquidity resources before it can implement other funding measures, therefore, the ILAA should involve an assessment of the ability of the firm's liquidity resources to withstand impact of the stress, measured across all ten risk drivers;
- for the stress test and each risk driver, the ILAA should provide a clear assessment of whether or not the firm's liquidity remains within its risk appetite, and if not, the ILAA should describe what actions the firm would take in order to maintain liquidity within its risk appetite;
- where a firm uses a model for the quantification of liquidity risk, this section of the ILAA would clearly explain:
  - the key assumptions and parameters within the liquidity modelling along with background information on the development of the assumptions;
  - how and why the model parameters have been chosen;
  - the limitations of the model;

- the sensitivity of the model to changes in its key assumptions or parameters; and
  - the validation work undertaken to ensure the continuing validity and adequacy of the model.
- the stress testing will involve assumptions about the behaviour of contractual and non-contractual liabilities, such as the expected resilience of on-demand retail deposits, and these should be evidenced and documented in the ILAA.

#### **Part 4 - Aggregation and Diversification**

##### *Aggregation*

This section will discuss how the results of the prescribed stress tests are brought together and an overall view is taken on liquidity adequacy. At a technical level, this activity requires the use of some form of quantitative methodology to combine the risks.

With respect to the technical aggregation, the ILAA should describe:

- allowances made for diversification, including assumed correlations within risks and between risks and how such correlations have been assessed, both in normal conditions and under the prescribed stress conditions;
- the justification for liquidity adjustments for diversification benefits between legal entities, and the justification for the free movement of liquidity between them under the prescribed stressed conditions; and
- the impact of diversification benefits excluding management actions.

##### *Diversification*

A firm with a sufficiently flexible funding strategy should be able to reduce its liquidity risk by diversifying its liquidity resources. Therefore, the ILAA must discuss how the prescribed stress affects and impacts the diversification in its liquidity resources.

To undertake this assessment, the firm should take into account the extent to which its liquidity resources are diversified according to, amongst others:

- the type of liquidity instruments held;
- the currency of the funding;
- the counterparties used;
- the firm's liability term structure; and
- an assessment of the availability of markets for the realisation of the liquid assets and funding.

A firm should also be aware that the degree of diversification in its liquidity resources can be compromised, particularly in periods of stress, by a number of factors, including but not limited to:

- reduced or terminated funding provision from some counterparties as a result of the firm's credit-rating being downgraded or its financial condition deteriorating;
- disputes over the terms of legally binding commitments to lend which delay the provision of funding;
- markets previously used by the firm for raising funding ceasing to be open, or operating at reduced capacity;
- reliance on a small number of brokers to access funding sources; and
- positive correlations in the behaviour of different funding sources and liquid assets.

### ***Part 5 - Internal Challenge and Approval***

This section will describe the extent of internal challenge and testing applied to the ILAA process and results. It will include the testing and control processes applied to the ILAA models, and the senior management or Board review and sign off procedures, along with details of the challenge and approval committees responsible for ensuring the accuracy and validity of the ILAA process and output. Details of the reliance placed on any external models would also be discussed here.

In addition, copies of any relevant reports obtained from external reviewers or internal audit should also be included.

### ***Part 6 - Use of the ILAA in the Firm***

This will discuss and demonstrate the extent to which liquidity risk management is embedded within the firm, including the extent and use of liquidity modelling, stress testing and contingency funding plans.

It would be helpful for firms to provide details of anticipated or planned future refinements within the ILAA (highlighting those aspects which are work-in-progress) along with other information that would be helpful in reviewing and assessing the ILAA.

## **Section 3 – Appendices**

This section will contain any and all information a firm thinks necessary to validate and substantiate the conclusions on liquidity risk management, liquidity amounts, types, and access as set out in the previous sections.

We would expect to see in the appendices, among others, liquidity models and cash flow forecasts, assumptions driving the models, validation of the behavioural assumptions used, relevant committee reports and minutes, management information and reports used in day-to-day liquidity management, full and complete details covering access to funding, types of funding (secured and unsecured) collateral management and types of collateral held and used, and full and complete details of the liquid assets portfolio.

### **3. ILAA LIQUIDITY RISK MANAGEMENT AND STRESS TESTING**

The information and suggested approach in this section reviews the key aspects of the prescribed stress test and the ten liquidity risk drivers. It also discusses how a firm might construct its liquidity stress testing methodology.

The ILAA prescribes the types of liquidity stress tests that firms must use and report the results of in their ILAA. These are set out below.

#### **Idiosyncratic Liquidity Stress**

This stress considers an unforeseen name- or firm-specific shock liquidity stress, where the market and / or retail depositors perceive the firm to be unable to meet its liabilities as they fall due for a period of two weeks, followed by a longer-term stress (out to three months from the inception of the stress) of the severity of a multi-notch credit rating downgrade that results in the crystallisation of liabilities linked to the firm's credit rating.

#### **Market-wide Liquidity Stress**

This stress considers an unforeseen short-term market-wide dislocation that gradually evolves into a long-term market-wide liquidity stress, where there are widespread concerns about the solvency of financial sector firms and uncertainty about the value of financial assets. As a result, there is likely to be a very high degree of illiquidity in financial markets for a period of two weeks, followed by a gradual improvement in market conditions over a period of three months from the inception of the stress. Certain asset classes, especially those assets that represent claims on or that have been originated by the financial sector, remain illiquid for a lengthy period or realisable only at excessive cost.

#### **Combined Idiosyncratic and Market-wide Liquidity Stress**

Under this stress, the firm's ILAA considers a combination of a market-wide and firm-specific liquidity stresses. The firm must consider this as a separate stress test and not merely as a summation of the idiosyncratic and market-wide stresses, because their interaction and any resulting mitigating actions firms could take will be different.

While firms are expected to undertake all of these stress tests, BIPRU 12.5 calls for the ILAA and any subsequent individual liquidity guidance (ILG) to be based on the combined idiosyncratic and market-wide stress test. The combined stress test must cover a time frame of three months in total, of which the first two weeks would be characterised by a sharp, severe idiosyncratic liquidity shock coupled with a severe market wide liquidity impact. This two week period is followed by gradually improving market conditions and a lessening idiosyncratic shock. We will require firms to use, at a minimum, the stress test assumptions set out below.

## First two weeks of stress

## Remainder out to three months

<b>Idiosyncratic Impact</b>	
Inability to roll over credit-sensitive wholesale secured and unsecured funding.	Sustained leakage of funds.
Sizeable retail outflow.	Sustained outflow.
<ul style="list-style-type: none"><li>• Reduction in the amount of intra-day credit provided to a customer by its settlement bank;</li><li>• Increase in payments withheld to a direct participant by its counterparties; and</li></ul> Increase in need for all firms (both direct and indirect participants) to make payments.	
Closure of FX Markets.	
Intra-group deposits repaid at maturity, intra-group loans treated as evergreen.	
Two-notch downgrade of long-term rating, proportionate impact of all other downgrade triggers.	
<b>Market Wide Impact</b>	
Uncertainty as to the accuracy of the valuation of a firm's assets and those of its counterparties.	
Inability to realise or the ability to realise only at excessive cost particular classes of assets.	
Risk of aversion among participants in the markets on which the firm relies on for funding.	
Uncertainty as to the ability of a significant number of firms to ensure they can meet liabilities.	

## Liquidity Risk Drivers

### **Wholesale Secured and Unsecured Funding Risk**

The firm is best placed to determine the nature of its liabilities and, therefore, what it considers to be its wholesale liabilities.

For the ILAA, we will ask firms to determine the expected behaviour of its wholesale liabilities and then estimate and quantify how their expected behaviour could change under the three stresses, in terms of volume, speed of outflow, and maturity bearing in mind that one or more of the stresses will invariably lead to acute outflows over two weeks followed by a longer-term gradual leakage of funds for the remainder of the three month stress period.

In particular, for the initial two-week stress period, we would expect credit-sensitive wholesale unsecured funding and repo transactions not secured by the most liquid securities to fail to rollover. For the remainder of the stress period, we would expect a firm to assess the extent to which it will be able to roll over its wholesale funding and to explicitly document and validate these assumptions in the ILAA.

A firm must also divide its wholesale funding sources into funding that the firm assess as having a higher than average probability of withdrawal in response to changes (including perceived changes) in the firm's credit worthiness (Type A wholesale funding), and other funding (Type B wholesale funding).

In addition, the stress assessment of wholesale funding should reflect the following assumptions, among others:

- funding from wholesale depositors with the greatest sensitivity to a firm's credit rating is likely to be among the least resilient, and, therefore, likely to fail to rollover. Credit sensitive depositors are likely to include, but will not be limited to, local authorities, insurance companies, pension funds, asset managers, government sponsored agencies, sovereign governments, certain large corporations and Money Market Funds;
- funding from depositors with whom the firm does not have a long-established relationship is less likely to rollover than funding from those with whom the firm has provided a range of services over a long period of time;
- funding from overseas counterparties is less likely to rollover or continue to be accessible than funding from domestic counterparties, as their geographic funding limits often decrease in a market-wide stress;
- funding from corporations with sophisticated treasuries that respond swiftly to negative news is less likely to rollover or continue to be accessible than funding from corporations with a passive treasury function;
- funding obtained through unsecured debt instruments, such as certificates of deposit (CDs), medium term notes (MTN), floating rate notes (FRN) and commercial paper (CP), is likely to be among the least accessible, or even completely unavailable under one or more of the stresses;
- funding obtained through repo transactions or other secured funding transactions is likely to be more accessible than unsecured funding, but access and availability will nonetheless vary according to the nature and creditworthiness of the counterparty, the form of the repo (bilateral or tri-party) and the quality of the repo'd collateral; and
- funding from counterparties with relatively low creditor seniority on the liquidation of the firm is less likely to rollover or continue to be accessible than funding from those counterparties with higher credit seniority.

### ***Retail Funding Liquidity Risk***

As part of its ILAA, a firm must define its retail liabilities and determine the expected behaviour of those liabilities. The firm must also estimate the gross outflows that could occur under the prescribed stresses, including any changes to its retail deposit structure and size. In general, we expect retail funding to be 'stickier', that is more likely to remain with the firm in a stressed environment than wholesale funding.

Additionally, a firm should categorise its retail liabilities according to:

- value;
- maturity;
- estimated speed of outflow;
- product type;
- interest rate applied; and
- other aspects or factors the firm considers relevant to its deposit structure.

The firm must then divide its deposits as either Type A retail funding (those having a higher probability to withdrawal in response to changes (or perceived changes) in the firm's credit worthiness, or Type B retail funding (all other types of retail funding).

Firms must also identify the stress, or combination of stresses, to which it considers its retail funding to be most vulnerable and estimate the gross retail outflows that could occur.

To assess behaviour under the prescribed stresses, a firm should categorise its retail liabilities according to: 1) value, 2) maturity, 3) estimated speed of outflow, 4) product type, 5) interest rate applied, and any other factor considered relevant to its deposit structure.

A firm must also ensure that the retail funding behavioural assessment carried out as apart of the ILAA includes, at a minimum, the following assumptions (among others):

- funding from depositors with whom a firm does not have a long-established relationship is likely to be less sticky than funding from those with whom the firm has provided a range of services over a long period of time;
- funding from online depositors or which is attracted by short-term increases in the rate of interest applied to some deposits is likely to be among the least sticky and quickest to move;
- funding from depositors is likely to be more sticky in circumstances where retail deposit balances are covered in full by deposit protection schemes;
- the behaviour of retail liabilities will be influenced to some extent on the contractual terms and conditions which give rise to those liabilities (e.g. on-demand accounts; term and notice accounts where term or notice is definitive; term and notice accounts where early repayment is allowed with or without penalty); and
- funding from overseas retail depositors is likely to be less sticky than that from domestic depositors.

A firm should also be aware that its retail funding profile is unlikely to be constant in a stressed environment. So, in carrying out its ILAA, we expect firm's to consider any changes to retail funding since the previous year's ILAA and also the possible impact of any future changes on its ability to maintain retail funding during periods of stress. Accordingly, we would expect a firm to include an analysis of:

- its retail funding profile as at the date of the ILAA;
- its retail funding profile over the twelve months preceding the date of the ILAA;
- its projected retail funding profile over the twelve months following the date of the ILAA; and
- its approach for how it classifies retail deposits as Type A or Type B.

### ***Intra-day Liquidity Risk***

For the purpose of assessing its intra-day liquidity risk, a firm must:

- estimate its net collateral and cash requirement in timing and volume to facilitate its expected activity in participating payment systems; and
- estimate how this amount could change unexpectedly in timing and volume as a result of the prescribed stresses, which includes the possibility of the firm's customers, including its correspondent banking customers, withholding payments to the firm and an increase in the need of customer's banks to make their own payments.

In addition, for a firm participating in several payment systems, we propose that it also estimates the likely impact on its liquidity and capital position in the event of default of its largest intra-day exposure under normal financial conditions and under the prescribed stresses.

Direct participants in payment systems will be required to measure in their ILAA how much liquidity they need under 'normal' operating conditions to meet their own and their customer's payments and how that amount could unexpectedly change under the ILAA prescribed stresses<sup>7</sup>.

Additionally, a direct payment system participant will need to include details of intraday credit limit policies it applies when extending credit to a customer firm who is not a participant in a payment system (a correspondent bank), which should cover, among others:

- charges for providing intra-day credit;
- collateral requirements;
- credit limits imposed, the amount, and whether the limits are 'hard' or can be breached;
- the extent to which the correspondent customers make use of the credit lines extended to them; and
- the points during the day at which a correspondent customer is required to cover their credit exposure.

An indirect participant in payment systems will also be required to demonstrate their understanding of the daily value and timing of the payments they need to make and expect to

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<sup>7</sup> BIRPU 12.5.6 to 12.5.14.

receive, and how these amounts could change under the prescribed stresses, so that they are able to assess the effect on their own liquidity positions in the event of an operational disruption at its settlement bank. Also, a firm must understand the amount they would need to pre-fund their settlement account should its settlement bank reduce or remove its intra-day credit facility.

Such an understanding will necessarily require indirect participants to have a thorough knowledge and understanding of the terms governing any lines of credit they may be provided with by their settlement bank. Additionally, and importantly, indirect participants must also provide details of alternative arrangements in place to ensure continued ability to meet its liabilities as they fall due should its settlement bank not be able to perform its obligations.

### ***Intra-group Liquidity Risk***

In assessing its intra-group liquidity risk, a firm must include an assessment of both the behaviour of contractual intra-group assets and liabilities and also the impact of an equivalent stress on members of its group to the extent those members of the group might rely on it for liquidity support<sup>8</sup>.

A firm may only rely on inflows from other members of its group if permitted to do so by us through the granting of a modification to BIPRU 12.

BIPRU 12.5.36(2)(R) prescribes that in relation to existing contractual relationships with member of its group, a firm must assume all loans granted to the group are evergreen, and that all deposits from the group do not roll over, irrespective of the underlying contractual maturity of the loans and deposits.

Additionally, assessing the liquidity risk that the firm might incur as a result of cessation of funding from, or of the need to provide funding to, other group members, the firm's ILAA should consider and discuss:

- the extent to which it and other entities in that firm's group have access to central bank funding;
- in relation to all group entities, the legal and regulatory regime to which it and all group entities are subject, including any liquidity regimes and depositor protection arrangements, such as provisions giving preference to domestic depositors, and any group large exposure regimes that restrict the transferability of liquidity;
- the contractual arrangements governing any agreed forms of liquidity support, such as committed funding lines; and
- incoming EEA firms or other foreign firms without liquidity modifications must assess the risk that their UK branch may be exposed to calls on liquidity from its head office in both normal and stressed conditions.

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<sup>8</sup> BIPRU 12.5.35 to 12.5.38.

## ***Cross-currency Liquidity Risk***

Many firms rely to some extent on liquidity sources denominated in foreign currency. For the purposes of the ILAA prescribed stress tests, we expect firms to assume they do not have access to the foreign exchange markets, and in particular the FX forward markets for duration of the initial two week stress for the purposes of calculating their net outflows prior to engaging management actions. Moreover, a firm must ensure the composition of its liquidity buffer is consistent with BIPRU 12.7.

Additionally, in assessing its cross-currency liquidity risk, a firm must:

- in relation to each major currency in which that firm is active, calculate its gross outflows and gross inflows and categorise them according to maturity;
- estimate how the amounts calculated could change under the prescribed stresses;
- determine the extent to which the outflows exceed the inflows in each relevant currency and provide details on how any shortfalls will be covered;
- identify the type of financial instruments a firm uses to raise funding in foreign currency;
- identify the main counterparties which provide funding to a firm in that currency; and
- describe the arrangements in place to fund net outflows in that currency on a timely basis.

## ***Off-Balance Sheet Liquidity Risk***

To assess its off-balance sheet liquidity risk, a firm should first identify all off balance sheet activities that might affect its cash flows. It must then calculate its expected cash flows arising from those off-balance sheet activities and estimate how its cash flows could change unexpectedly under the prescribed stresses, paying particular attention to:

- derivatives positions;
- contingent liabilities;
- commitments given and changes in draw down practices; and
- liquidity facilities to support securitisation programmes.

The ability of sponsored securitisation programmes to repay their liabilities may be linked to the credit-worthiness of the firm, in which case a firm should assume credit-sensitive wholesale borrowers would not distinguish between the ability of the firm to meet its obligations and the obligations of the securitisation programmes.

In relation to its derivatives positions, a firm must:

- assess the impact of downgrades of its own credit rating on its requirement to collateralise counterparty exposures or make termination payments;

- assess the impact of movements in market prices on the firm's contractual obligations to collateralise counterparty exposures, recognising that such movements in value may create off-setting flows on the firm's other obligations and that even for market-neutral derivative positions, some may require collateral positing and some may not;
- assess the impact of changes in the firm's initial margin position either as a result of a central counterparty clearing house varying initial margin requirements or as a result of its counterparties terminating or novating bilateral derivative positions;
- assess the likelihood that counterparties may exercise rights to substitute cash or securities pledged to the firm as collateral should there be a liquidity squeeze in certain asset classes or funding markets in one currency relative to another;
- assume that an uncertainty surrounding the valuation of complex derivative instruments may lead to pricing uncertainty, potential disputes with counterparties and frictional liquidity requirements;
- assess the likelihood that counterparties may seek to terminate or novate uncollateralised derivative positions to reduce their credit exposure to the firm, which may result in a drain on liquidity;
- assess the circumstances in which the firm will choose to provide liquidity support to sponsored and third-party structured vehicles beyond its contractual obligations (if any), and assess the impact on its cash flows of its choosing to do so both in normal financial conditions and under the prescribed liquidity stresses;
- assess the likelihood of any commitments given being drawn and any collateral it may receive on committed secured facilities;
- assess the impact on its cash flows arising from the maturity, exercise and repricing of derivatives contracts in which it holds a position, including the impact of counterparties which require the posting of additional collateral in the event of a decline in that firm's credit rating and require the posting of additional margin or collateral (or the return to them of margin or collateral held by that firm) in the event of a change in the value of a derivative contract; and
- assume that under the prescribed stresses there may be uncertainty as to the accuracy of the valuation attributed to a derivative contract.

In relation to its contingent liabilities, a firm should assess the impact on its cash flows from the triggering, in normal financial conditions and under the prescribed stresses, of contingent obligations contained in all contractual documentation to which it is party, including, among others: acceptances, endorsements, guarantees, underwriting agreements, standby letters of credit, documentary credits, warrants, indemnities, un-drawn note issuance facilities and other revolving credit facilities. The firm should also assess the degree of concentration in its total contingent liabilities with as respect to obligations arising from particular types of contract, counterparty and market sector.

In relation to its off-balance sheet commitments the firm should consider its contractual exposure to the following types of commitment: committed funding facilities, un-drawn loans and advances to wholesale counterparties, mortgages that have been agreed but not yet drawn

down, credit cards, overdrafts (and other retail lending facilities). This assessment should be granular enough to enable the firm, at a minimum, to:

- make reasonable assumptions about the circumstances in which counterparties will draw down;
- identify the extent of any correlations between counterparties in deciding whether or not to draw down (if one does, will others follow?);
- identify the extent of any correlations between counterparties and the firm's own balance sheet; and
- assess the proportion of its total commitments attributable to particular counterparties.

The firm should then calculate the effect on its cash flows of the drawing of those commitments in normal financial conditions and under the prescribed stresses. In addition, the firm must assess the impact on its cash flows from its counterparties experiencing liquidity stress at the same time as the firm is subject to the stresses.

In relation to liquidity facilities to support securitisation programmes, the firm must:

- assess the extent of its contractual obligations to provide liquidity support to sponsored and third-party, structured vehicles;
- identifies the circumstances in which support will, or is likely to, be called;
- consider the impact of the following events on the likelihood of a call for liquidity support: 1) inability of a vehicle to roll over CP (either due to disruption in the CP market, or to concern as to the quality of the assets securitised) and; 2) in relation to sponsored vehicles, concern as to the solvency of that firm as sponsor;
- assess the impact on its cash flows of such support being called in normal financial conditions and under the prescribed stresses; and
- assess the circumstances in which the firm will choose to provide liquidity support to sponsored and third-party structured vehicles beyond its contractual obligations (if any), and it should assess the impact on its cash flows of choosing to do so both in normal financial conditions and under the prescribed stresses.

### ***Franchise Viability Risk***

For the purposes of assessing its franchise viability risk, the firms will be required to estimate the liquidity resources necessary to maintain its core business franchise under the prescribed stress tests, caused by:

- the extent to which it will enter into new lending agreements with its wholesale and retail customers;
- the extent to which it will buy back its issued debt, and the debt of sponsored securitisation vehicles to maintain confidence in its viability;

- the extent to which it will experience wholesale and retail customers demanding early repayment of fixed-term deposits and the extent to which it will meet, or feel obligated, to meet those requests;
- the extent to which it will provide liquidity support beyond its contractual obligations to members of its group, sponsored securitisation programmes and managed investment funds; and
- the extent to which it will exercise call options on its debt and debt issued by securitisation trusts where investors are expecting those options to be exercised or where failure to do so would send negative signals about the viability of the firm.

### ***Marketable Assets Risk***

A firm may, in the normal course of business, raise funding from the repo markets, or for liquidity management purposes hold a stock of assets which it plans to sell outright or repo in order to mitigate the effect of a liquidity stress.

Although we will only permit a firm to generate additional cash inflows in the stress period from its liquid asset buffer, or if permitted by us, other members of its group, a firm may incorporate different marketable assets into its contingency funding plan to be used as sources of liquidity during a liquidity stress event. To the extent that these assets may behave differently under stress conditions than under normal business conditions, a firm will be subject to marketable assets risk;

Accordingly, a firm should consider that the behaviour of its marketable assets is likely to depend on a number of different factors, including market-related factors, such as stressed haircuts or forced-sale losses, and the firm's operational capability to generate funding from those assets in a timely manner.

For the purpose of its ILAA, a firm will also be required to provide an analysis of the profile of its marketable assets. This analysis must identify the firm's marketable assets according to:

- asset class;
- maturity;
- currency;
- their eligibility for use in central bank monetary operations; and
- any other characteristic which a firm considers relevant and which contain an assessment of the degree of diversification achieved across its marketable assets.

To calculate its exposure to marketable assets risk the firm must assess the behaviour of the marketable assets comprising its liquidity resources, under normal conditions and under the prescribed stresses. When assessing the effect of such liquidity stresses on marketable assets, the firm will consider, among others:

- its ability to realise those assets in a timely fashion, bearing in mind potential reputation issues arising from abnormal market behaviour;

- the potential for using the assets as collateral in secured funding and the size of haircuts likely to be required by a counterparty; and
- the likelihood and extent (in monetary terms) of a forced-sale loss.

### ***Non-marketable Assets Risk***

In addition to using marketable assets a firm may, in the normal course of business raise, or as an option in its contingency funding plan to mitigate liquidity stresses attempt to raise, funding from securing its non-marketable assets, i.e. those assets which are not realisable through sale or repo.

This assessment is particularly important for a firm which ordinarily does not raise funding from its non-marketable assets in this way and/or places proportionately greater reliance on securitisation programmes as compared to other funding strategies to generate liquidity.

Non-marketable assets can also be used to generate liquidity by using them in securitisations or covered bond programmes. Assets that are typically used to raise liquidity in this manner include residential mortgage loans, commercial mortgages, other loans, and credit card and auto loan receivables. To the extent that the ability to fund from these non-marketable assets may be limited under stressed conditions, firms must assess such behaviour under the prescribed stresses.

To meet the requirement in relation to non-marketable assets risk associated with asset securitisations, the firm must assess, among others:

- the existence and consequences of early amortisation triggers; and
- its financing of assets which are warehoused prior to their securitisation.

Additionally, a firm must assess, among others, the extent to which the behaviour of inflows from its retail loans may differ from their contractual terms under stressed conditions<sup>9</sup>.

### ***Funding Concentration Risk***

A firm that has concentrated funding sources potentially faces the additional risk of, and greater impact from, a liquidity stress. Therefore, as part of its ILAA, we require firms to assess the degree of concentration in its liquidity resources<sup>10</sup>.

For the purposes of assessing the degree of concentration risk, firms should take into account the extent to which its liquidity resources are diversified according to, among others:

- the type of instrument or product;
- currency;
- counterparty;
- liability term structure and maturity dates; and

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<sup>9</sup> BIPRU 12.5.67 (R).

<sup>10</sup> BIPRU 12.5.82(R).

- the market for their realisation (provided that such market is open to the firm as a counterparty).<sup>11</sup>

Additionally, a firm should be aware that the degree of diversification in its liquidity resources can be compromised, particularly in periods of stress, by a number of factors, including:

- reduced or terminated funding provisions from some counterparties as a result of that firm's credit-rating being downgraded or its financial condition deteriorating;
- disputes over the terms of legally binding commitments to lend which delay the provision of funding;
- markets previously used by the firm for raising funding ceasing to be open or operating but at reduced capacity;
- reliance on a small number of brokers to access funding resources; and
- positive correlations in the behaviour of different instruments and products.

#### **4. SUPERVISORY LIQUIDITY REVIEW PROCESS and INDIVIDUAL LIQUIDITY GUIDANCE**

##### ***Supervisory Liquidity Review Process (SLRP)***

Periodically, we will conduct a SLRP, which is an in-depth review and assessment of a firm's quantitative and qualitative liquidity risk management processes and operations. The SLRP has the primary aim of forming our view of any Individual Liquidity Guidance (ILG) to be given to a firm. In undertaking a SLRP we will:

- request and review the firm's most recent ILAA and other documentation we consider relevant and necessary to form a clear understanding of a firm's liquidity position and risk management (see BIPRU 12.5);
- review a firm's systems and controls for liquidity risk as set out in BIPRU 12.3; and
- request and review the firm's internal stress testing and contingency funding plan as set out in BIPRU 12.4.

The SLRP scope and agenda is driven in large part by the findings of the ILAA review and calls for, among others, a detailed investigation and assessment of a firm's quantitative and qualitative liquidity risk management governance, approach, methodology, and reporting.

In conducting a SLRP, we will take a risk-based and proportionate view, focusing on a firm's approach to dealing with the liquidity risks it faces. One of the key outcomes of the SLRP is a communication to the firm setting out an appropriate level of ILG, as outlined below, which establishes, among other things, the amount, quality and funding profile of liquidity resources a firm should maintain.

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<sup>11</sup> BIPRU 12.5.83(G).

## ***Individual Liquidity Guidance (ILG) and Regulatory Intervention Points***

Based on the findings of the SLRP and following a robust internal validation process, we will establish and provide ILG for a firm and communicate it, along with our conclusions to the firm's Board. ILG will contain guidance on:

- the quantity of a firm's liquid asset buffer; and,
- the firm's funding profile.

A firm is required to monitor its conformity with its ILG on a daily basis<sup>12</sup>. This is a dynamic requirement and is measured against a firm's then-current liquidity risk profile. We will also monitor a firm's liquidity risk profile, and therefore its conformity with its ILG, on a regular basis through our reporting regime (FSA 047 and FSA 048 among others).

BIPRU 12.9 puts in place a number of regulatory intervention points to clarify how a firm should consider the guidance set out in its ILG. These regulatory intervention points make clear that a failure to meet ILG does not, in and of itself, imply a failure to meet Threshold Conditions, but gives further clarity over how we will assess Threshold Conditions in such situations.

### *Regulatory Intervention Points*

When ILG is issued, we will assume that a firm accepts the guidance unless, within one month of the guidance being issued, we receive written representations of why a firm believes the guidance is inappropriate. Where agreement between a firm and us cannot be achieved, we will consider using our powers under Financial Services and Markets Act 2000 (FSMA) (for example, our power under Section 45 to vary, on our own initiative, a firm's *Part IV permission*) so as to require a firm to hold the level of liquidity set out in the ILG. If we use such powers, the safeguards set out in BIPRU 12.9 would not apply as the ILG would be a formal part of the firm's FSMA Part IV permission.

As set out above, where a firm has accepted its ILG, we will require it to monitor its liquidity position against the guidance on a daily basis. As soon as a firm becomes aware that it either fails to meet or is likely to fail to meet its ILG, it must immediately notify us in writing with an explanation of the reasons for such failure. In addition, it must implement its contingency funding plan immediately.

Within two days of the notification to us, a firm must submit in writing a liquidity remediation plan. The liquidity remediation plan must set out in detail the firm's forward estimates of the evolution of the size of the firm's liquid assets buffer and of its funding profile. In addition it must set out the management actions it intends to undertake to remedy the failure to meet ILG. For each management action included in the plan the firm should set out:

- the amount of funding it intends to raise;
- the intended funding providers;
- the maturity profile of the intended funding;

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<sup>12</sup> BIPRU 12.9.24.

- clear timescales for achieving each of the actions; and
- an adequately reasoned assessment of the likelihood of success in delivering each of the actions

We will review the quality of the liquidity remediation plan and form our own view of the likely success of each management action. We will also track progress of the plan to agreed timescales. This will be a significant input into our ongoing assessment of whether firms meet Threshold Conditions. In assessing compliance with Threshold Conditions in these circumstances, we will not just be assessing the adequacy of the financial resources but also the adequacy of the firm's management.

## **5. SIMPLIFIED FIRMS**

As noted previously, a simplified ILAS BIPRU firm is not required to produce or submit an ILAA. However, simplified firms are required to undertake an assessment of their compliance with BIPRU 12.3 and 12.4.

### ***ILSA***

BIPRU 12.6.21(R) requires simplified ILAS BIPRU firms to regularly carry out an Individual Liquidity Systems Assessment (ILSA). The ILSA assesses a simplified firm's compliance in meeting the systems and controls standards set out in BIPRU 12.3 and 12.4, and includes a requirement to review and comment on the results of its liquidity stress tests required by the rules in BIPRU 12.4.

The ILSA must be proportionate to the nature, scale and complexity of a firm's activities and business model.

BIPRU 12.6.22(G) states that a simplified firm should carry out an ILSA at least annually, or more frequently if changes in its business operations, balance sheet strategy, or the nature or scale of its activities or the operational environment suggest that its current level of liquidity resources (as established under BIPRU 12.6 generally) is no longer adequate. A firm should expect that we will ask for the ILSA to be submitted as part of its ongoing supervisory process.