



BANK OF ENGLAND  
PRUDENTIAL REGULATION  
AUTHORITY

Consultation Paper | CP21/16

# Pillar 2 liquidity

12 May 2016

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Responses are requested by Friday 12 August 2016.

**Please address any comments or enquiries to:**

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# 1 Overview

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1.1 In June 2015, the Prudential Regulation Authority (PRA) restated its overall approach to liquidity and funding risks, taking into account the European Commission's delegated act under EU Regulation 575/2013 with regard to the Liquidity Coverage Requirement (LCR) for credit institutions.<sup>1</sup> The LCR is a Pillar 1 standard applicable across the European Union, which took effect on 1 October 2015. In SS24/15, the PRA outlined an interim Pillar 2 approach, and indicated that it would further review its assessment framework at a later date.<sup>2</sup>

1.2 In this consultation paper (CP), the PRA proposes a statement of policy on its approach to three aspects of Pillar 2 liquidity ('Pillar 2'): intraday risk, debt buyback and non-margined derivatives. The CP also outlines the PRA's Pillar 2 objectives and scope. In addition, it provides an early overview of planned future work to develop the Pillar 2 approach where the PRA is not yet setting out proposals. As such, this CP constitutes the first of two planned CPs on Pillar 2.

1.3 The PRA's aim in publishing a first CP now is to:

- seek specific feedback from firms on those elements where its thinking is advanced enough to make specific proposals; and
- invite early views from industry on key future elements of the regime where it is not yet ready to make specific proposals.

1.4 The Pillar 2 proposals set out in this CP, and planned second CP, are intended to complement the Pillar 1 regime by addressing liquidity risks not captured, or not fully captured, under Pillar 1.<sup>3</sup> Assessments under the Pillar 2 framework will be part of the PRA's overall Liquidity Supervisory Review and Evaluation Process (L-SREP).

1.5 In designing a Pillar 2 framework to assess and mitigate significant sources of liquidity risk, the PRA is seeking to ensure that firms have adequate financial resources, which contributes to the PRA's objective of promoting the safety and soundness of firms.

1.6 This CP is relevant to all UK banks, building societies and PRA-designated investment firms.

## Proposals

1.7 The specific proposals on which the PRA seeks feedback from firms are that:

- in general, the level of application for setting requirements under Pillar 2 will be aligned to the Pillar 1 approach;
- that in disclosing information about their liquidity position, firms should note that their publically disclosed Liquidity Coverage Ratios include high quality liquid assets (HQLA) required to cover Pillar 2 risks, with no further specific disclosure on their Pillar 2 requirements unless required by law;

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1 Policy Statement 11/15 'CRD IV: Liquidity', June 2015; [www.bankofengland.co.uk/pr/Pages/publications/ps/2015/ps1115.aspx](http://www.bankofengland.co.uk/pr/Pages/publications/ps/2015/ps1115.aspx); and Supervisory Statement (SS) 24/15 'The PRA's approach to supervising liquidity and funding risks', June 2015; [www.bankofengland.co.uk/pr/Pages/publications/ss/2015/ss2415.aspx](http://www.bankofengland.co.uk/pr/Pages/publications/ss/2015/ss2415.aspx).

2 SS24/15, paragraph 3.15.

3 Pillar 1 liquidity and funding requirements in force in the United Kingdom are limited to the LCR. It is still to be decided how and when a version of the Net Stable Funding Ratio (NSFR) will be implemented in the EU as a Pillar 1 standard.

- the PRA's approach to assessing liquidity risk associated with debt buyback and non-margined derivatives will be based on supervisory discretion guided by the firm's outstanding debt or exposures; and
- the PRA's approach to assessing intraday liquidity risk will be based on the firm's maximum net debits, the firm's stress testing framework, the firm's key characteristics such as whether it is a direct or indirect participant in payment and settlement systems, and the markets it operates in.

## Consultation approach

1.8 Pillar 2 will be a wide-ranging framework encompassing a number of risks and mitigation tools, and therefore the PRA has decided to split the consultation over two CPs.

1.9 Intraday liquidity is consulted on in this CP as it is a significant risk which is not captured in the Pillar 1 standard. Franchise viability risk is another significant category of risk within Pillar 2. The PRA is therefore making specific proposals now on defining this risk generally, and on its approach to two specific types of franchise viability risk: debt buyback and non-margined derivatives. Specific proposals on three further types of franchise viability risk: prime brokerage matched books and settlement failure risk will be covered in the second CP.

1.10 This CP also provides a vehicle for the PRA to provide early sight on some key areas of future work that will be part of developing the Pillar 2 approach, with the aim of engaging early with industry. These elements are cash flow mismatch risk and overall calibration. The PRA intends to set out specific proposals on these elements, as well as further aspects of the regime, in the second CP, but the PRA welcomes feedback on the various approaches to the treatment of cash flow mismatch risk and overall calibration as its thinking develops.

1.11 The statement of policy appended to this CP, as amended by the PRA's consideration of feedback from the consultation, will be incorporated into a broader statement of policy published in the second CP.

## Invitation to submit additional information

1.12 The PRA invites firms to submit information in addition to responses to this consultation with reference to the following paragraphs of the draft statement of policy:

- paragraph 3.16 - the PRA invites firms to submit data or information on average liquidity recycling factors within their significant participations in Real-Time Gross Settlement (RTGS) systems;
- paragraph 3.17 - the PRA invites firms to submit data or information on their methodologies for assessing and sizing intraday liquidity risk in settlement venues which provide secured and disclosed credit facilities; and
- paragraph 3.25 - the PRA invites firms to submit data or information on whether haircut and/or collateral eligibility changes have been experienced during times of stress. The PRA invites this information from both direct and indirect participants.

1.13 The PRA reminds firms that any information provided in response to this consultation may be made public. However, the PRA acknowledges that some information, such as that submitted in relation to paragraph 1.12, may be considered confidential. If so, it would be helpful if firms could indicate where any confidential information has been submitted.

## Transitioning to the new regime

### Timing of implementation

1.14 The implementation of the entire Pillar 2 regime will only take place once all individual elements have been consulted on and the PRA has published its final approach following the second CP on Pillar 2.

### Transition path

1.15 The previous UK liquidity regime applied liquidity requirements as a percentage of the amount of risk quantified in the PRA's generic stress scenario: this was referred to as the 'glide path factor'. The glide path factor also applied to firm-specific add-ons. Once the PRA has formed a view on the appropriate calibration of the Pillar 2 regime, it will determine if there is a need for a transition path. The exact shape and timing of a transition path will be consulted on in the second CP.

## Responses and next steps

1.16 This consultation closes on Friday 12 August 2016. The PRA invites feedback on the proposals and discussion points set out in this consultation. Please address any comments to [CP21\\_16@bankofengland.co.uk](mailto:CP21_16@bankofengland.co.uk).

## 2 The PRA's statutory obligations

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2.1 In developing the proposals in this CP, the PRA has had regard to the regulatory principles.<sup>1</sup> Two of the principles are of particular relevance.

2.2 First, the PRA when developing the proposals outlined in this CP has followed the principle that a burden or restriction which is imposed on a person, or on the carrying on of an activity, should be proportionate to the benefits, considered in general terms, which are expected to result from the imposition of that burden or restriction.

2.3 Second, the PRA intends to use its resources in the most efficient and economic way through seeking to mitigate only the most significant sources of liquidity risk not captured, or not fully captured, in Pillar 1. In particular, supervisors will decide whether a firm's Pillar 2 risks are material enough to the PRA's objectives for requirements to be imposed.

### **The PRA's objectives**

2.4 The PRA has a statutory duty to promote the safety and soundness of banks, building societies, credit unions, insurers and PRA-designated investment firms. The proposals in this CP are intended to further that objective by ensuring that the PRA has an appropriate regime for assessing and mitigating firms' liquidity risk and ensuring that firms have adequate financial resources. Where appropriate, the framework also enables the PRA to address liquidity risks in ways other than firms holding liquid assets, for example by requiring firms to limit the liquidity risks they are running. In both cases, these actions contribute to the PRA's objective of promoting the safety and soundness of firms.

2.5 When discharging its general function in a way that advances its primary objectives, the PRA has, as a secondary objective, a duty to facilitate effective competition in the markets for services provided by PRA-authorised persons. The proposed elements of the Pillar 2 framework provide methodologies for assessing and mitigating risks in a consistent manner across all firms. This contributes to the PRA's secondary objective.

### **Cost benefit analysis**

2.6 A cost benefit analysis covering all proposals in the Pillar 2 approach will be included in the second CP, based on overall calibration of the approach. Given that the proposals set out in the statement of policy will not be implemented until the completion of the second consultation, the PRA does not expect any direct costs to be incurred by firms prior to the second consultation.

### **Impact on mutuals**

2.7 In the PRA's opinion, the impact of the proposals on mutuals is expected to be no different from the impact on other firms.

### **Equality and diversity**

2.8 The PRA has performed an assessment of the policy proposals and does not consider that the proposals give rise to equality and diversity implications.

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<sup>1</sup> See section 3B FSMA.

## 3 Pillar 2 regime: objectives

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3.1 This chapter sets out the objectives of the Pillar 2 regime.

3.2 The LCR is a Pillar 1 standard that applies to all firms in the same way. The Capital Requirements Directive (CRD)<sup>1</sup> through Articles 104 and 105 provides discretion for competent authorities to set additional Pillar 2 liquidity requirements. The proposals made in this CP and the forthcoming second CP are designed to address liquidity risk not captured, or not fully captured, under the Capital Requirements Regulation (CRR).<sup>2</sup> They are intended to complement the European Banking Authority's (EBA) Guidelines on common procedures and methodologies for the supervisory review and evaluation process ('EBA SREP Guidelines').<sup>3</sup>

### Objectives of the Pillar 2 regime

3.3 The LCR was designed with the objective of enabling a firm to survive a stress period of 30 days, thereby providing the firm's management and the authorities time to assess the situation and prepare an appropriate reaction.

3.4 The Pillar 2 framework complements the LCR. It is a frame of reference for supervisors to assess and mitigate risks not captured, or not fully captured, in Pillar 1 standards.

3.5 In publishing its approach to Pillar 2, the PRA seeks to help firms understand how it assesses liquidity risks, thereby encouraging them to develop better policies and processes to manage these risks.

3.6 However, as outlined in SS24/15 the PRA continues to expect firms to carry out their own assessment of their Pillar 2 risks, and to decide on appropriate risk management actions, including holding appropriate levels of liquid assets to insure against such risks. Firms should describe their assessment and mitigation actions clearly in the Internal Liquidity Adequacy Assessment Process (ILAAP) document.

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1 Directive 2013/36/EU: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:176:0338:0436:EN:PDF>.

2 Regulation (EU) No 575/2013: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:321:0006:0342:EN:PDF>.

3 EBA (2014), 'Guidelines on common procedures and methodologies for the supervisory review and evaluation process', available at [https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+\(Guidelines+on+SREP+methodologies+and+processes\).pdf](https://www.eba.europa.eu/documents/10180/935249/EBA-GL-2014-13+(Guidelines+on+SREP+methodologies+and+processes).pdf).

## 4 Pillar 2 regime: scope

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4.1 The PRA has identified a number of risks which are not captured, or not fully captured, in Pillar 1 and several ways in which these can be mitigated. These risks are set out in this chapter. Firms should note that this list is not exhaustive: over time, or for specific firms or in specific circumstances, other risks may be identified and the PRA may set additional requirements around these as appropriate.

4.2 This chapter splits the risks along the two following categories:

- (i) risks which were already captured as part of the UK's previous Individual Liquidity Adequacy Standards (ILAS) regime. These risks were not addressed through firm-specific requirements and so may be less familiar to firms; and
- (ii) risks, not captured in the ILAS regime's generic stress scenario, and which were likely to have been addressed through individual liquidity guidance (ILG) to firms. Firms may be more familiar with the risks listed in this category.

4.3 Both groups capture risks identified by the EBA SREP Guidelines.

4.4 At present, Pillar 1 liquidity and funding requirements in the United Kingdom are limited to the LCR. It is still to be decided how and when a version of the Net Stable Funding Ratio (NSFR) developed by the Basel Committee on Banking Supervision (BCBS) will be implemented in the EU as a Pillar 1 standard.<sup>1</sup> Where funding risks are not mitigated by a Pillar 1 standard, the PRA will consider whether they should be addressed under Pillar 2.

### **Types of risks not captured, or not fully captured, in Pillar 1**

4.5 Table 1 lists each of the Pillar 2 risks identified by the PRA and indicates whether they will be covered in the first or second CP. These risks are outlined in more detail in the sections following Table 1.

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<sup>1</sup> Basel Committee on Banking Supervision (2014), "Basel III: the net stable funding ratio", available at <http://www.bis.org/bcbs/publ/d295.pdf>

**Table 1: CP publication schedule, by identified Pillar 2 risk**

	Risk identified	Covered in first CP	Covered in second CP
Franchise viability risks	Debt buyback	X	
	Non-margined derivatives	X	
	Prime brokerage		X
	Matched books		X
	Settlement failure risk		X
Other risks	Intraday	X <sup>1</sup>	
	Cash flow mismatch risk	X <sup>2</sup>	X
	Underwriting risk		X
	Inadequate systems & controls		X
	Risks relating to derivative outflows		X [Caveat: timing uncertain] <sup>3</sup>
	Risks relating to securities financing margin requirements		X
	Risks relating to intragroup outflows		X
	Funding risks, including 'cliff risk'		X

### Risks not captured in either Individual Liquidity Adequacy Standards (ILAS) regime generic stress test or LCR

4.6 These risks are:

- (i) **Franchise viability risks:** this is a broad category which captures liquidity risks that might arise over and above those relating to contractual obligations. Franchise viability risks are mentioned in Delegated Act Article 23(2). The Article outlines a procedure for competent authorities to follow in order to ensure such risks are mitigated but it does not outline how these risks should be determined. As such, franchise viability risk falls under the category of risks not fully captured in Pillar 1. The PRA has identified the following liquidity risks as falling into this category: risks relating to non-margined derivatives, debt buyback, prime brokerage, matched book activities and settlement failures. Liquidity risks relating to debt buyback and non-margined derivatives are covered in the draft statement of policy contained within this CP; the remaining franchise viability risks will be covered in the second CP.
- (a) Debt buyback and non-margined derivatives risks both relate to long-dated contractual maturities being transformed into short-term, effective maturities following a specific request from a counterparty (a non-contractual request). They are described in more detail in Chapter 2 of the draft statement of policy.

1 If the Central Securities Depositories regulation ('CSD-R') leads to a material change in market practice, the PRA will consider whether its methodologies will need to be refined to ensure its assessment of intraday liquidity risk remains accurate. Regulation 2014/909/EU, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0909&from=EN>.

2 In this CP, the PRA provides an early overview of planned future work, proposals will be made in the second CP.

3 Part of this risk is covered by the LCR Delegated Act and in due course by the EBA's Regulating Technical Standards on additional collateral outflows for derivative contracts. These RTS further define the LCR, and therefore fall within Pillar 1.

- (b) Prime brokerage liquidity risk arises wherever the firm's activity involves financing clients' positions through short-term funding: for example, arising from the proceeds of client short sales. In such a case, a liquidity stress can result in that firm facing a liquidity outflow from clients withdrawing short-term funding, while still financing clients' long positions for franchise reasons.
- (c) Matched book liquidity risk refers to the risk that, in stress, matched books may not collapse as per contractual terms due to operational or franchise reasons. A firm may decide to extend financing to franchise clients, for example via a reverse repo, for longer than their contractual terms while losing repo funding. The firm therefore needs to find an alternative way to fund the reverse repo.
- (d) Settlement failure liquidity risk captures the likelihood that settlements are more likely to fail due to heightened activity in a period of liquidity stress and hence contractual inflows do not arise as expected resulting in higher liquidity needs.
- (ii) **Intraday liquidity risk:** is the risk that a firm fails to manage its intraday liquidity effectively, which could leave it unable to meet a payment or settlement obligation at the time expected, thereby affecting its own liquidity position and that of other parties (see also draft statement of policy paragraph 3.2).<sup>1</sup>
- (iii) **Underwriting risk:** firms undertaking underwriting activities may find themselves unable to on-sell part of a new issue. In such cases, they must retain the unsold portion on their own balance sheet, and ensure they can fund it.
- (iv) **Inadequate systems and controls:** relating specifically to the management of liquidity risk, or having a direct impact on liquidity risk.
- (v) **Risks relating to derivatives outflows:** where those risks are not captured under the Pillar 1 standard.<sup>2</sup>
- (vi) **Risks relating to securities financing margin requirements:** the risk of additional outflows relating to margin requirements on securities transactions where the credit quality of the collateral has deteriorated is not captured by the Pillar 1 standard.
- (vii) **Risks relating to intragroup flows:** the LCR provides for certain preferential treatments of intragroup flows, including where two entities within a group are established in different Member States. However, it does not consider the question of intragroup flows from non-EU entities within a group, which are instead treated as third parties. In some cases, there is a risk that liquidity may not move freely between such entities (trapped liquidity).

### Risks not captured in the LCR which were captured under the ILAS regime's generic stress test

4.7 There are four specific components of liquidity risk which were captured by the previous UK regime's generic stress scenario, but not by the LCR stress scenario:

- (i) The LCR covers a 30-day horizon: it therefore does not capture any liquidity risks beyond that window, particularly any risks that may concentrate just beyond the 30-day point - so-called '**cliff risk**'.

1 Basel Committee on Banking Supervision (2013), 'Monitoring tools for intraday liquidity management', available at <http://www.bis.org/publ/bcbs248.pdf>.

2 Part of this risk is covered by the LCR Delegated Act and in due course by the EBA's Regulating Technical Standards on additional collateral outflows for derivative contracts. These RTS further define the LCR, and therefore fall within Pillar 1.

- (ii) The LCR measures liquidity risk over a 30-day horizon as a whole: there is a risk that some firms' liquidity positions could be weaker than reported in the LCR at a particular point within that 30-day period, if the timing of inflows is not aligned with that of outflows. This **cash flow mismatch risk** is not captured in the LCR. A granular modelling of cash flows may highlight points at which a firm's cumulative outflows position (gross outflows minus gross inflows and minus available liquid assets) falls below zero. The PRA is particularly focused on being able to monitor such shortfalls in a firm's liquidity profile. This approach is in line with Basel's 'Principles for Sound Liquidity Risk Management and Supervision'.<sup>1</sup> Further, the EBA SREP Guidelines require national competent authorities to assess firms' frameworks for projecting cash flows over an appropriate horizon.
- (iii) The set of eligible **liquid assets** under ILAS was narrow: as such, few further restrictions were placed on individual firms with regards to their management of liquid assets. By contrast, in the LCR regime, firms are expected to manage actively the risks relating to a wider pool of eligible liquid assets: the PRA's expectations on the management of these risks are set out in SS24/15. In particular, firms should hold enough cash, or marketable assets that can be monetised sufficiently quickly, in order to cover the initial outflows experienced in the early stages of a liquidity stress. The PRA intends to consider this question in its design of scenarios to monitor 'cash flow mismatch risk' (see paragraph 5.9(ii)).
- (iv) **Risks relating to concentration of funding sources:** the LCR does not address risks from firms being overly reliant on a single type of funding, a single counterparty, or funding maturities being concentrated around the same date; risks relating to the tenor and amount of short-term wholesale funding should also be addressed in the Pillar 2 regime.<sup>2</sup>

### Macroprudential considerations

4.8 Article 97 CRD explicitly requires that supervisory reviews take into account 'risks that an institution poses to the financial system taking into account the identification of systemic risk...or recommendations of the ESRB, where appropriate'. The European Systemic Risk Board (ESRB) Handbook on macroprudential tools also suggests that Pillar 2 measures can be used to address systemic risks. The Pillar 2 regime will therefore allow the PRA to support the Bank of England in the pursuit of its financial stability objective. The previous UK regime did not explicitly consider the systemic angle of liquidity and funding risk.

4.9 The Pillar 2 framework outlined in this publication and in the planned second CP will be designed to take into account the stability of the financial system as a whole where relevant. It will not include the design of any new macroprudential liquidity tools, which is within the remit of the Bank of England's Financial Policy Committee. Chapter 5 outlines in more detail the PRA's proposed approach for a system-wide calibration of liquidity requirements.

### Choice of tools to mitigate risks

4.10 The Pillar 1 LCR standard requires firms to hold liquid assets to cover the risks identified within the LCR stress. Firms can therefore meet or improve their LCR either by increasing their liquid asset holdings, or by minimising their net outflows over the next 30 days, for example through terming out some of their short-dated funding. This approach recognises that liquidity

1 <http://www.bis.org/publ/bcb138.pdf>, paragraph 46. 'In the normal course of measuring, monitoring and analysing its sources and uses of funds, a bank should project principal and interest cash flows over time under a number of alternative scenarios. These pro-forma cash flow statements are a critical tool for adequately managing liquidity risk. These projections serve to produce a "cash flow mismatch" or "liquidity gap" analysis that can be based on assumptions of the future behaviour of assets, liabilities and off-balance sheet items, and then used to calculate the cumulative net excess or shortfall over the time frame for the liquidity assessment.'

2 As noted in paragraph 4.2, it is still to be decided whether a version of the NSFR will be implemented in the United Kingdom as a Pillar 1 standard. Any funding risks fully covered by a Pillar 1 standard will not be addressed under Pillar 2.

risk can be managed either through holding appropriate insurance against existing risks or minimising risks.

4.11 In the previous UK regime, Pillar 2 risks had been mainly addressed by requiring firms to hold additional buffers of liquid assets. The PRA recognises that this may not always be the most efficient and proportionate approach.

4.12 An alternative to liquid asset requirements is to require firms to reduce the amount of liquidity risk they run, through monitoring and setting limits on cash flow mismatch risk (see Chapter 5). The PRA may also impose qualitative requirements on firms, for example around the management of liquid asset buffers.

### **Reporting requirements**

4.13 For most risks already identified under Pillar 2, the PRA does not intend to require firms to provide regular data over and above what is already provided to supervisors in the ILAAP document or L-SREPs. Two exceptions to this general approach apply:

- (i) data requirements relating to cash flow mismatch risk: see Chapter 5 for more details; and
- (ii) monitoring of the proportion of HQLA that firms hold at amortised cost. This is to enable better monitoring of whether concentrations of liquid asset holdings at amortised cost could create a barrier to monetising these assets.

## 5 Outline of future work

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5.1 This chapter provides early sight of two aspects of Pillar 2 which the PRA plans to consult on in the second CP: cash flow mismatch risk and overall calibration. This chapter does not set out proposals at this stage, but rather sets out the PRA's current thinking. The PRA welcomes any early input from firms on these issues.

5.2 The PRA is providing greater detail of its potential approach on cash flow mismatch as this will be a key aspect of the Pillar 2 regime. As noted in paragraph 4.11, setting liquid asset additions may not always be the most direct, targeted or proportionate approach to mitigating liquidity risks. Where this is the case, the cash flow mismatch risk framework can be used.

5.3 The PRA is also providing an outline of work that will be done to assess the overall calibration of the UK liquidity regime, as this could have a significant impact on the proposals detailed in the statement of policy.

### Definition of cash flow mismatch risk

5.4 Cash flow mismatch creates the risk that a firm has insufficient cash from monetisation of liquid assets and other inflows to cover outflows on a daily basis.

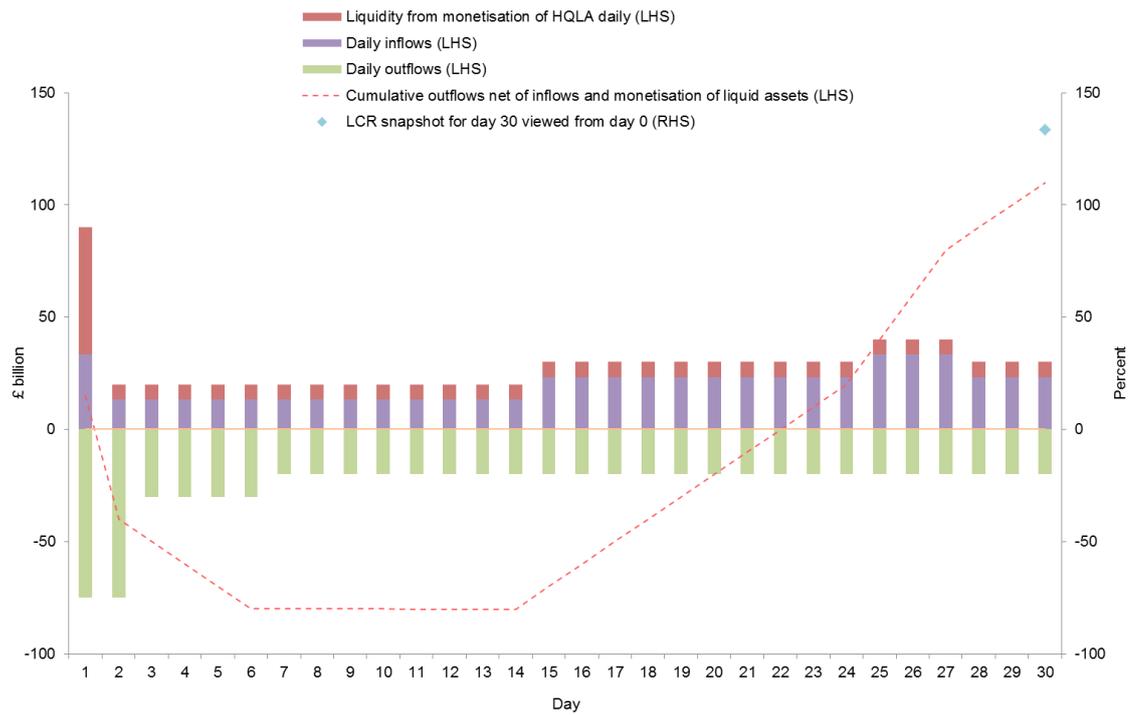
5.5 Effectively monitoring a firm's liquidity risk relies on having information on the timing of inflows and outflows. Maturity mismatches between inflows and outflows are inherent to maturity transformation: often outflows will occur earlier than inflows. However, if the liquidity obtained from monetising buffers is insufficient to cover net outflows on a daily basis, the firm is exposed to cash flow mismatch risk.

5.6 Cash flow mismatch risk is a general concept which can be assessed under different stress scenarios and monitored over a range of horizons. The LCR scenario and a 30-day horizon, taken together, are one specific case under which cash flow mismatch risk can be assessed.

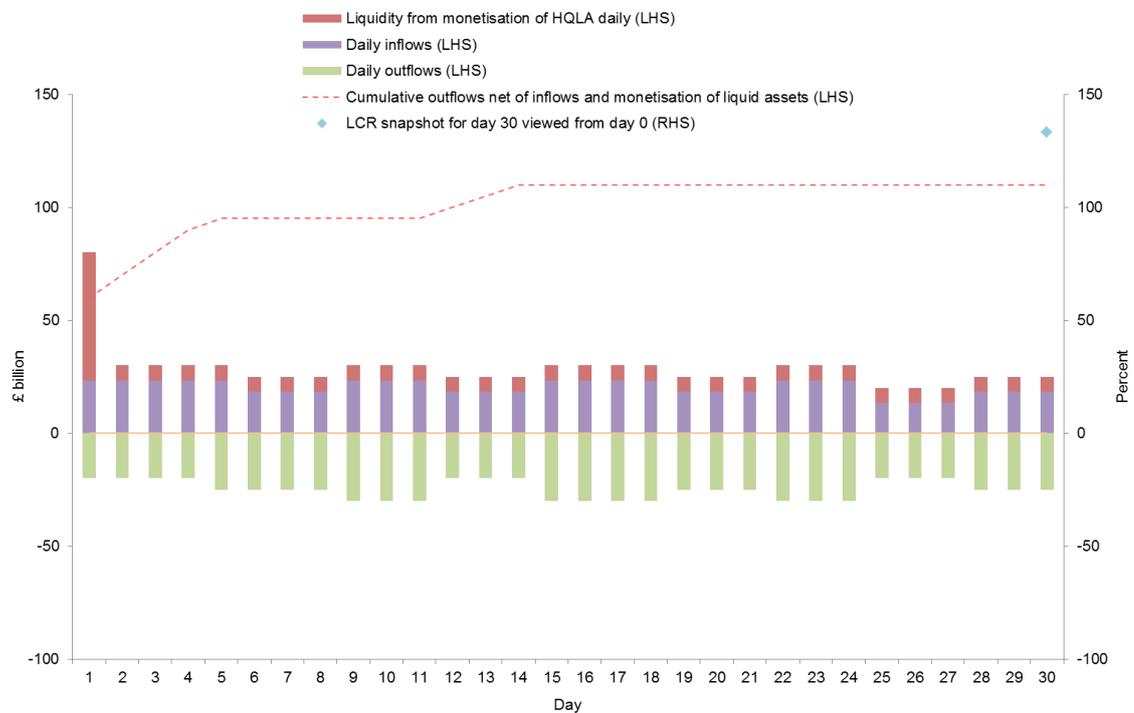
5.7 The LCR is an end-30 day measure of a firm's liquidity position. It does not assess whether, on a daily basis, the availability of liquid assets and inflows matches the occurrence of outflows. For example, if a firm experiences a significant outflow on a given day of the LCR stress, the LCR does not test whether the firm has enough assets and inflows available on that day to cover that outflow.

5.8 It is therefore possible for a firm to meet its LCR, yet not be able to survive the stress scenario captured in the LCR itself: a firm's net cumulative outflow position in stress may exceed its available liquid assets before the 30-day mark; and it may also recover before the 30 days are over, due to a later inflow. See Chart 1 for an example of such a firm, see Chart 2 for an example of a firm that meets its LCR, where the net cumulative outflow position does not exceed available liquid assets before the 30-day mark.

**Chart 1: Example of a firm falling short of liquidity on Day 2 while still meeting its LCR**



**Chart 2: Example of a firm maintaining adequate liquid resources with the same Day 30 LCR as Chart 1**



5.9 The PRA will explore two possible approaches to evaluating cash flow mismatch risk:

- (i) A quantity-based approach, for example looking at the largest shortfall between daily cumulative outflows and inflows, over a given horizon and for a given liquidity stress scenario. This could be measured either with or without liquid assets.

- (ii) A time-based approach, for example looking at the number of days to when a firm's cumulative net cash flow becomes negative, assuming a particular stress scenario and a particular set of available liquid assets. This metric captures the distance to the future point in time at which a firm defaults under the given scenario.

## Why are such measures useful?

5.10 Measures of cash flow mismatch risk are particularly useful with respect to at least two specific aspects of liquidity risk which the PRA considers important:

- (i) The PRA is concerned about the risk that firms may on paper meet the LCR, but fail the stress scenario embedded in the metric if the requirement were computed using more granular, daily cash flows.
- (ii) The PRA is concerned about firms running high levels of short-dated wholesale funding risk: even with adequate amounts of liquid assets, the sudden withdrawal of short-term funding could result in firms trying to liquidate large amounts of securities, impacting the value of other firms' liquid asset holdings.

## Plans for future policy proposals

5.11 The PRA plans to monitor cash flow mismatch risk. This is in line with SS24/15, paragraph 2.19: 'The PRA expects firms to consider the lowest point of cumulative stressed net cash flows both within the 30-day LCR horizon and within the context of survival days along the horizon of their own risk appetite. Daily granularity is necessary for this analysis'.

5.12 Monitoring cash flow mismatch risk requires, by construction, access to data on future profiles of inflows, outflows, and liquid assets, over a given horizon. The PRA intends to collect such data in the future. While recognising that this may add to firms' reporting requirements, the PRA believes that firms themselves should already be monitoring their day-by-day profile of net outflows. Firms are also currently reporting daily contractual cash flows through the FSA047 (albeit based on historic ILAS definitions of liquid assets and cash flows). As such the planned reporting requirement should not require significant IT development for firms. By announcing its plans early, the PRA expects firms to start ensuring now that they will be able to deliver such reporting in the future.

5.13 In the second CP on Pillar 2, the PRA will include specific policy proposals on the following:

- (i) how the PRA will exercise its discretion under Article 104(1)(k) of the CRD 'to impose specific liquidity requirements, including restrictions on maturity mismatches between assets and liabilities';
- (ii) the reporting requirements needed to monitor cash flow mismatch, taking into account the likely requirements of the contractual maturity ladder template of the EBA Implementing Technical Standard on additional liquidity monitoring metrics.<sup>1</sup> Consideration will be given to proportionality;

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<sup>1</sup> See Annex I, EBA (2014), 'Implementing Technical Standard on additional liquidity monitoring metrics', available at <https://www.eba.europa.eu/regulation-and-policy/liquidity-risk/draft-implementing-technical-standards-on-additional-liquidity-monitoring-metrics>.

- (iii) the exact horizon at which cash flow mismatch risk will be monitored: firms should expect that this horizon will be set at least up to 30 days, as this is aligned with the LCR's horizon; and
- (iv) the exact assumptions on outflows, inflows, and liquid assets to be included in each mismatch calculation.

5.14 With regard to 5.13, the PRA may design stress scenarios and evaluate cash flow mismatch risk at a different horizon than that of the reporting requirements.

5.15 This CP does not set out proposals in these areas. However, subject to the responses to this CP, the PRA will set out proposals for consultation in due course. The PRA welcomes any early views from firms on these four elements of the potential policy.

## **The PRA's approach to overall calibration and impact on cost benefit assessment**

### **Calibrating overall liquidity requirements**

5.16 The proposed statement of policy contains methodologies for assessing some specific types of liquidity risk identified under the Pillar 2 regime. These specific risks will be considered alongside Pillar 1 requirements for each firm. The individual methodologies consulted on in the statement of policy are designed to quantify these risks in order to properly capture all significant sources of liquidity risk for each firm. However, this assessment does not consider the likelihood of all these risks occurring at the same time. And it does not seek to quantify the impact of the resulting aggregate liquidity requirements across all firms.

5.17 The PRA therefore intends to consider:

- (i) the likelihood of each risk crystallising;
- (ii) the likely correlation between each separate risk; and
- (iii) costs imposed on firms of any further changes in the liquid asset eligibility rules for Pillar 2: at present, the PRA requires firms to meet interim Pillar 2 requirements with assets that meet the eligibility criteria detailed in the delegated act. Any change to this would have an impact on the overall cost of the regime and would therefore be included in the assessment of the impact of the new regime.

5.18 These considerations will feed into an assessment of the most appropriate calibration of the regime overall, taking into account that Pillar 1 requirements are directly applicable in the United Kingdom and therefore cannot be modified unilaterally by the PRA beyond the minimum requirement during the transition period.

### **Impact on cost benefit analysis**

5.19 The exact size and nature of requirements set on firms in the Pillar 2 regime will be decided taking into account the overall calibration work described above. Therefore, it is only possible to determine whether a transition path is appropriate once the steady state requirements are known.

5.20 This means that quantifying the costs and benefits of the proposals consulted on in the statement of policy would be premature: it would require an assumption as to what the final

estimate of the level of the end-state requirement will be, as well as assumptions as to whether a transition path would apply and how. Instead, a cost benefit analysis will be provided in the second CP.

5.21 The PRA welcomes feedback now on the proposed approach to overall calibration in paragraphs 5.16 to 5.18 so it can be taken into account as the PRA's thinking develops. The impact of the proposals in the statement of policy will only be fully known once the overall calibration and cost benefit analysis work have been completed. As such respondents will have a further opportunity to provide feedback on the risks consulted on in this statement of policy in the context of the overall calibration proposed during the second consultation phase.

## Appendix: Draft statement of policy – Pillar 2 liquidity

### 1 Introduction

1.1 This statement of policy is relevant to all UK banks, building societies and PRA-designated investment firms.

- Chapter 2 details the PRA's approach to assessing a number of franchise viability risks; and
- Chapter 3 details the PRA's approach to assessing intraday liquidity risk, including the PRA's approach to double duty.

1.2 The Pillar 2 framework covers risks not captured, or not fully captured, in Pillar 1.

1.3 The PRA reminds firms that, in line with the Overall Liquidity Adequacy Rule, it is incumbent on them to undertake their own assessment of liquidity risks, including Pillar 2 risks, and to take appropriate measures to reduce or manage these risks.

1.4 The supervisor's overall judgement about how the firm approaches its liquidity risk management will influence the supervisor's decision on how conservative or specific to be in providing individual guidance to firms.

1.5 The Pillar 2 approach applies in a way that is proportionate to each firm's business model and to the risk that the firm poses to the PRA's safety and soundness objective and the Bank of England's financial stability objective. In particular, if a supervisor judges the firm's Pillar 2 risks to be relatively immaterial compared to its Pillar 1 risks, the supervisor may choose not to apply Pillar 2 requirements. If, having reviewed the firm's Individual Liquidity Adequacy Assessment Process (ILAAP) document, a supervisor judges that the risks to the PRA's safety and soundness objective and the Bank of England's financial stability objective from a particular firm are immaterial, the supervisor can also choose not to review the firm for Pillar 2 risks. A supervisor's assessment will involve consideration as to whether any Pillar 2 measures would have a disproportionate impact on a particular type of firm, including whether it results in a relatively bigger burden on smaller firms.

1.6 If appropriate, supervisors may impose other requirements for risks not previously identified in Pillar 1 or Pillar 2.

#### Level of application

1.7 Pillar 2 requirements apply at individual (or sub-group) and consolidated levels. In general, the level of application for setting requirements for a firm under Pillar 2 will be aligned to the Pillar 1 approach.

#### Disclosure of Pillar 2 requirements

1.8 In line with legal requirements, firms report all eligible high quality liquid assets (HQLA) within their publically disclosed liquidity coverage ratios (LCRs). This includes HQLA held for Pillar 1 requirements, Pillar 2 requirements, and any eligible 'surplus' above that. However, firms should be clear to investors that the HQLA they report in their LCRs is to cover both Pillar 1 and Pillar 2 risks.

1.9 The PRA expects firms not to disclose publically their total individual liquidity guidance ('ILG', composed of Pillar 1 and Pillar 2 requirements). Disclosure of the ILG may lead to an expectation from both firms and markets that firms should hold a further buffer of liquid assets, above their level of ILG. The PRA has no such expectation, as outlined in Supervisory Statement (SS) 24/15: 'The PRA does not expect firms to hold higher liquid asset buffers than the amount advised in their ILG or as required to meet their assessment of overall liquidity adequacy, as appropriate.'<sup>1</sup> Therefore, the PRA expects that firms will not provide any further details on their Pillar 2 requirements unless disclosure is required by law, and that firms will notify the PRA in advance of any proposed disclosure announcement.

## 2 Franchise viability: debt buyback and early termination of non-margined derivatives

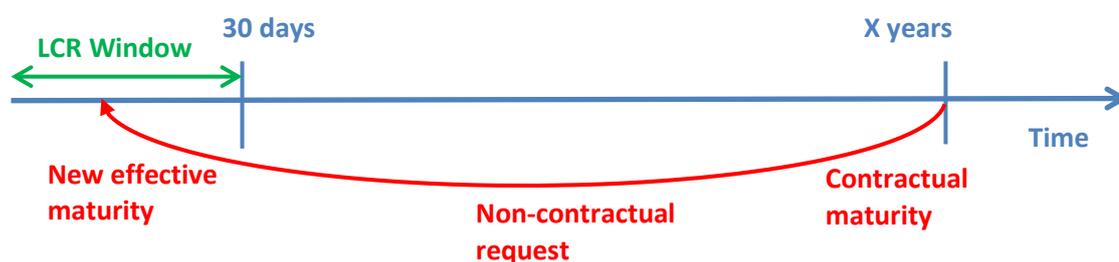
2.1 Several risks fall within the franchise viability category: this chapter focuses on two specific types of franchise viability risk which will be assessed under Pillar 2. The first part provides a general definition of franchise viability liquidity risk. The second part outlines the PRA's approach to assessing debt buyback risk under Pillar 2. The final part outlines the PRA's approach to assessing the risk of early termination of non-margined derivatives under Pillar 2.

### Definition of franchise viability risk

2.2 Franchise viability risk arises when a firm takes actions, despite having no legal obligation to do so, in order to preserve its reputation, and where these actions cause unforeseen liquidity outflows. Failing to take these actions may damage the firm's franchise, which could impede access to wholesale markets or cause significant outflows. The associated outflows are uncertain before the event, as there is no associated contractual obligation.

2.3 Franchise viability risk is an open-ended category. It includes risks from prime brokerage, matched books, debt buyback, early termination of non-margined derivatives and settlement failure risk. Chart 1 depicts a counterparty non-contractual request and the impact this may have on maturity.

**Chart 1: Effect of a counterparty non-contractual request on maturity**



<sup>1</sup> Supervisory Statement (SS) 24/15 'The PRA's approach to supervising liquidity and funding risks', June 2015; [www.bankofengland.co.uk/pr/Pages/publications/ss/2015/ss2415.aspx](http://www.bankofengland.co.uk/pr/Pages/publications/ss/2015/ss2415.aspx).

### **Debt buyback risk**

2.4 Debt buyback risk arises when firms are asked, by holders of their paper, to buy back debt immediately, transforming a longer-dated contractual maturity into a new, short-dated effective maturity, as shown in Chart 1. Firms may accept buyback requests, despite having no legal obligation to do so, for reputational reasons and to show that a functioning two-way secondary market exists for their debt. Outflows that were previously forecast to occur over the medium to long term have therefore been brought forward.

2.5 If a firm were to refuse such a request, it may signal that it was experiencing a liquidity stress. This could cause liquidity outflows and/or damage future access to capital markets. However, if a firm accepts a buyback request, it must ensure it has liquidity readily available to fulfil that request.

2.6 As early buyback of debt is not a contractual obligation, this risk is not captured in the Liquidity Coverage Requirement (LCR): only outflows from debt contractually maturing within 30 days are captured in the LCR.

2.7 When assessing liquidity risk arising from debt buyback risk, based on the firm's percentage of outstanding debt the supervisor may:

- (i) consider outstanding debt with maturities beyond a 30-day horizon. This assessment will take into account the need for banks to maintain levels of debt eligible for minimum requirement for own funds and eligible liabilities (MREL) in a stress;<sup>1</sup> and
- (ii) take into account activity in the secondary debt market. Firms that are market makers in their secondary debt market may experience a greater frequency of buyback requests.

2.8 The PRA's approach relies on firms' systems and processes recording instances of buybacks, including the circumstances in which they arise.

### **Risk from early termination of non-margined derivatives**

2.9 Non-margined derivative transactions incur neither initial nor variation margin: changes in the mark-to-market value of the derivative are not reserved for upfront or day by day. As a result, negative mark-to-market fluctuations in value may result in unexpected liquidity outflows for a firm if the derivatives contracts were to be terminated early.

2.10 A firm's derivative counterparty may, at any time, request early termination of the transaction. Such requests may occur for a number of reasons, but will likely occur when the counterparty is 'in the money' on the transaction: conversely, that means the firm is out of the money at the point of early termination, and, for non-margined trades, it will therefore incur an unexpected liquidity outflow if it accepts the request.

2.11 A firm may still accept such requests, despite having no legal obligation to do so, as rejection could suggest it does not have enough liquidity to compensate its 'in the money' counterparty. Such a perception could result in the firm being locked out of wholesale funding markets.

2.12 Payments at the contractual maturity date of the derivative are accounted for in the LCR. Liquidity risk from early termination is not included, because there is no contractual obligation to accept a request for early termination. Therefore if the contractual maturity date falls

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<sup>1</sup> CP44/15 'The minimum requirement for own funds and eligible liabilities (MREL) – buffers and Threshold Conditions', December 2015, [www.bankofengland.co.uk/pr/Pages/publications/cp/2015/cp4415.aspx](http://www.bankofengland.co.uk/pr/Pages/publications/cp/2015/cp4415.aspx).

outside the LCR stress horizon, and an early termination request is accepted, the resulting outflow will not be included in the LCR. As with debt buyback risk, early terminations of non-margined derivatives result in an original maturity date contractually outside the 30-day horizon of the LCR being transformed into an effective maturity date that falls within that 30-day window (see Chart 1).

2.13 When assessing liquidity risk arising from non-margined derivatives, based on the firm's percentage of outstanding exposure, the supervisor may:

- (i) choose either peak or average exposure;
- (ii) identify a historical time period which, allows the supervisor to 'look through' unusual events regarding frequency of early termination requests; and
- (iii) take into account the following factors as a guide for setting the size of the add-on:
  - (a) exposure, as a proportion of total balance sheet, to non-margined derivatives; and
  - (b) exposure to derivatives with more volatile mark-to-market valuations. On average, greater mark-to-market volatility will cause greater liquidity outflows from early termination, for a given frequency of early terminations and a given exposure.

2.14 The PRA's approach relies on firms' systems and processes recording instances of early termination requests, including the circumstances in which they arise.

### 3 Intraday liquidity

3.1 This chapter provides a definition of intraday liquidity risk, then outlines the PRA's approach to assessing and calibrating intraday liquidity risk under Pillar 2.

3.2 The PRA defines intraday liquidity risk as 'the risk that a firm is unable to meet its daily settlement obligations, for example, as a result of timing mismatches arising from direct and indirect membership of relevant payments or securities settlements systems'.<sup>1</sup>

3.3 The PRA considers that all firms connected to payment or securities settlement systems, either directly or indirectly, are exposed to intraday liquidity risk.

3.4 This chapter addresses intraday liquidity risk within two main types of system: payment systems and securities settlement systems, covering both gross and net settlement. There are two ways in which a firm can connect to these systems: directly or indirectly. A 'direct participant' is directly connected to the system and is responsible to the settlement agent (or to all other participants) for the settlement of its own payments, those of its customers and those of indirect participants on whose behalf it is settling. An 'indirect participant' requires the services of a direct participant to perform activities on its behalf (eg input of transfer orders, settlement).<sup>2</sup>

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1 SS24/15 'The PRA's approach to supervising liquidity and funding risks', June 2015, paragraph 2.23; [www.bankofengland.co.uk/pr/Pages/publications/ss/2015/ss2415.aspx](http://www.bankofengland.co.uk/pr/Pages/publications/ss/2015/ss2415.aspx).

2 Committee on Payment and Settlement Systems (2003), 'A glossary of terms used in payments and settlement systems'; [http://www.bis.org/cpmi/glossary\\_030301.pdf](http://www.bis.org/cpmi/glossary_030301.pdf).

### **Double duty**

3.5 Mitigating the risk of double duty is a primary reason for including a calibration of intraday liquidity risk in a firm's liquid asset buffer. Double duty is the use of a liquid asset buffer held for wider liquidity resilience, to support also payments and securities settlement activities intraday, where intraday liquidity risk is not included as a risk in the calibration of the liquid asset buffer.

3.6 While double duty can reduce the cost of participation in payment and securities settlement systems through lower liquid asset holdings, it carries risks. Conceptually, there is a significant risk associated with using the same assets for two separate purposes: when the assets are used for one purpose they are not available for another purpose. In practice this manifests itself in two ways:

- (i) Balance sheet resilience risk: if a firm's liquid asset buffer is serving the purpose of providing intraday liquidity then it cannot be as effective as a buffer against a run on liabilities.
- (ii) Intraday liquidity risk: if a firm suffers a prolonged balance sheet liquidity stress, this uses up the firm's liquid asset buffer meaning that the bank has insufficient funds available to operate effectively in payments and securities settlement systems.<sup>1</sup>

3.7 For these reasons, the PRA mitigates the risks associated with double duty by calibrating liquid asset buffers to include intraday liquidity risk as a separate risk.

### **Overall assessment of intraday liquidity risk**

3.8 Where an add-on is applied to mitigate intraday liquidity risk, it will be determined by considering at least:

- (i) the firm's mean maximum net debits;
- (ii) the firm's stress testing framework;
- (iii) the relevant characteristics of the firm; and
- (iv) the markets the firm operates in.

3.9 The PRA considers that the mean average of maximum net debits, combined with a stress uplift, is the most appropriate measure to assess intraday liquidity risk. The remainder of this chapter explains this approach in more detail.

### **Maximum net debit**

3.10 The maximum net debit is a measure of the intraday liquidity need of a firm on any given day. It is calculated as the point at which the value of payments sent by a firm most exceeds the value received by that firm, for a given payment or securities settlement system. Chart 2 shows how Firm A's payment profile and intraday liquidity needs can evolve in a single system over the course of a day.

3.11 The PRA favours the mean average maximum net debit measure, combined with a stress uplift. An alternative approach to sizing intraday liquidity risk is to simply estimate the peak maximum net debit. But this is often driven by one-off, anticipated events, for which liquidity

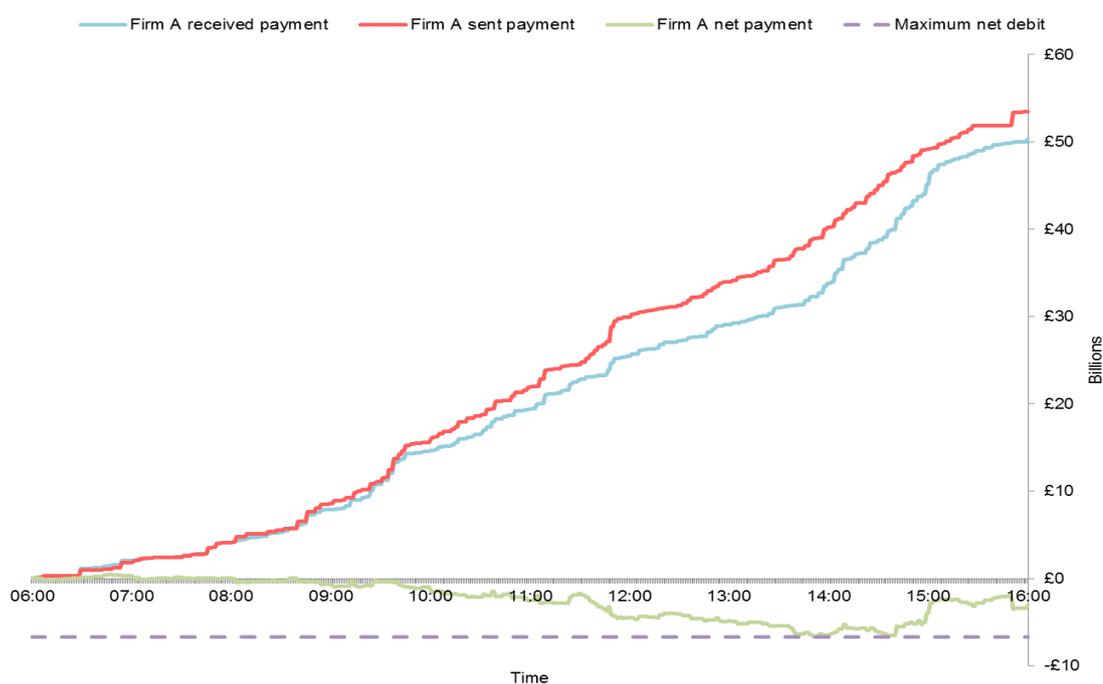
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<sup>1</sup> For an example of the dangers associated with double duty, see Ball et al. (2010), 'Intraday liquidity: risk and regulation', Bank of England Financial Stability Paper No. 11 June 2011, Box 2; [www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs\\_paper11.pdf](http://www.bankofengland.co.uk/financialstability/Documents/fpc/fspapers/fs_paper11.pdf).

has been set aside, and therefore does not always provide a true reflection of a firm's intraday liquidity risk on an ongoing basis.

3.12 The mean average maximum net debit is assessed for a firm on a system by system basis. The PRA recognises that some firms may be able to create liquidity efficiencies across the systems they operate in. However, for the purposes of considering intraday liquidity risk, the PRA does not consider these efficiencies to be accurately quantifiable on a systematic basis. Nonetheless, where a firm can demonstrate these efficiencies the PRA will give them due consideration during the Liquidity Supervisory Review and Evaluation Process (L-SREP) assessment.

**Chart 2 Example of an intraday real time gross settlement payment profile, for a single firm**



3.13 A firm should not assume that a reduction in the maximum net debit profile will necessarily lead to a reduction in the PRA's assessment of intraday liquidity risk.

3.14 The PRA expects all direct participants in payment and securities settlement systems to be able to calculate their maximum net debit position for each respective system in which they participate in. The PRA encourages indirect participants that are currently unable to calculate their maximum net debit position to engage with their correspondent bank(s), with the aim of improving the granularity and timeliness of payment settlement data to enable them to do this. While the PRA will be proportionate in its expectations on the ability of indirect participants to be able to do this for all markets, the PRA reminds firms of the expectations set out in Principle 8 of the Basel Principles for Sound Liquidity Risk Management and Supervision.<sup>1</sup>

### Alternative methodologies for sizing intraday liquidity add-ons

3.15 The methodologies used by the PRA are based on the maximum net debit position of a firm as a first best option, but where a firm is unable to calculate its maximum net debit, the PRA can employ a range of other methodologies.

<sup>1</sup> 'Principle 8: A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems'; <http://www.bis.org/publ/bcbs144.pdf>.

3.16 An important proxy methodology is to estimate the level of liquidity recycling. Liquidity recycling is the ratio between value of payments sent and liquidity usage. For example, in a single system on a given day, if a firm has liquidity usage of £1 million and a gross outflow of £10 million, the firm would have a liquidity recycling factor of 10.

#### Secured, disclosed intraday credit facilities in securities settlement systems

3.17 An alternative to the maximum net debit approach for assessing intraday liquidity risk is used when the following criteria are met:

- (i) the securities settlement venue provides a secured and disclosed intraday credit facility to the direct participant; and
- (ii) the direct participant in that system secures their intraday credit line by holding a pool of assets of value equivalent to the haircut value of the underlying security being settled.

3.18 When both criteria are met, the PRA assesses the intraday liquidity risk to be at least equivalent to the sum of the haircut value of settled trades and a stress uplift.

#### Assessing risks in stress

3.19 As outlined in paragraph 3.9, a stress uplift is applied to the assessment of intraday liquidity risk.

#### Stress scenarios

3.20 The following, based on the stress scenarios detailed in Basel Committee on Banking Supervision (BCBS) Monitoring tools for intraday liquidity management,<sup>1</sup> are ways in which an intraday stress may manifest:

- (i) a credit or liquidity shock affecting the firm directly, reducing counterparties' willingness to make payments to it in a timely fashion;
- (ii) an operational, credit or liquidity shock affecting the ability of a major counterparty in the payment system to make payments to the settlement firm as expected;
- (iii) a credit or liquidity shock affecting a major customer or group of customers of the settlement firm, preventing them from receiving payments as expected; and
- (iv) market conditions change which mean that a given pool of assets generates less intraday liquidity.

3.21 Scenarios (i) to (iii) capture the risk of a change in the payment profile of a firm which can in turn affect the maximum net debit position, while scenario (iv) affects the ability of the firm to fund its intraday liquidity position. These stresses are applicable to both direct and indirect participants. For more detail on the manifestations of these stress scenarios, see BCBS Monitoring tools for intraday liquidity management.

3.22 A significant impact of stress (i) on a firm that uses correspondent banking services may be the withdrawal of intraday credit line(s) by its correspondent bank(s). This may require the firm to prefund or collateralise its intraday credit line(s).

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1 BCBS (2013), 'Monitoring tools for intraday liquidity management'; <http://www.bis.org/publ/bcbs248.pdf>.

### Stress uplift

3.23 The stress uplift is based on historical evidence gathered during stressed conditions of the type described above, and for both market stress and idiosyncratic stresses.

3.24 The stress uplift will be subject to supervisory judgement. Factors taken into account will include, but are not limited to, the sophistication of the firm's intraday liquidity management systems, how the firm connects to the respective payment and securities settlement systems it uses, and the business model of the firm.

3.25 The PRA expects firms to consider the risk of haircut and collateral eligibility changes in their assessment of intraday liquidity risk.