Liquidity Management Tools in Collective Investment Schemes: Results from an IOSCO Committee 5 survey to members

Final Report

The Board

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Executive Summary

- The purpose of this report is to present the findings of the survey on liquidity management tools conducted by IOSCO Committee 5 members. The survey was designed to look into existing liquidity management frameworks in member jurisdictions with a particular focus on tools to help deal with exceptional situations (e.g., significant redemption pressure). It covered topics such as tool availability, use, outcomes, as well as who has the right to activate such tools. Twenty-seven members responded.
- Many liquidity management tools are available to jurisdictions, some of which are specifically tailored to the features and nature of the funds considered (e.g., money market funds, real estate funds, hedge funds). In particular, most jurisdictions clearly distinguish open-ended schemes from closed-ended ones.
- The most common tools are: redemptions fees; redemptions gates; redemptions in kind; side pockets; and suspension of redemptions. Suspension of redemptions is available in all responding jurisdictions, with the power to activate, in exceptional circumstances, in both the hands of the fund/asset manager and regulator.
- Regulatory definitions of liquidity or liquid instruments are varied, ranging from no formal definition to quite granular specifications, including lists of asset classes considered to be "liquid" in nature. Where definitions exist they tend to be more principles-based rather than prescriptive in nature.
- Beyond the overarching principle that managers should ensure investors can redeem at the frequency set in the funds' constituting documents, funds are generally required to have appropriate risk management and internal quality controls to ensure that all material risks are properly identified, assessed, monitored and controlled.
- Open-ended funds are generally subject to additional regulatory requirements dealing with fund leverage, asset concentration, investor concentration, restrictions on illiquid asset investment and short-term borrowings.
- The existence of liquidity management tools are generally communicated upfront in fund disclosure documents, with the responsibility to activate tools in the hands of the funds (be it manager/operator or trustee).
- The use of liquidity management tools does not need approval from the responsible regulator, generally. However, regulatory guidance on the circumstance under which tools may be used is provided in many jurisdictions. This is particularly true for the activation of suspension of redemptions.
- Historically, many of the liquidity management tools outlined in the report have been activated within individual jurisdictions, with the recent financial crisis being a particularly rich source of recent case studies. In terms of the impact of such tools activations, it should be noted that the impact may significantly vary depending on whether it results from a market-wide event (e.g., 2008 crisis) or from a problem experienced at the fund level. In the large majority of cases, these tools have been used without causing any broader effect beyond the fund(s) involved.

Table of Contents

List of Figures and Tables

Introduction

The purpose of this report is to present the findings of the survey on liquidity management tools circulated to IOSCO Committee 5 members in April 2015. The survey was comprised of 4 questions. The questions were:

1. What type of liquidity management tools is available in your jurisdiction? (e.g. Gates, Side pockets, Suspension of redemptions, Redemption in kind, Valuation at bid price, Swing pricing / Anti-dilution levy / redemption fee, Other?)
2. Does your regulatory framework define liquidity and/or liquid instrument, if so how?
3. Does your regulatory framework contain provisions on how to manage liquidity beyond the overarching principle that managers should ensure investors can redeem at the frequency set in the funds' constituting documents?
4. For each tool, please describe:
    a. Whether the tool requires prior authorization by the regulator to be considered and / or to be activated?
    b. Whether the regulatory framework contains specific provisions in relation to this tool and / or is there market guidance? (e.g. are there specific provisions which require activation of certain tools either in predefined circumstances?)
    c. If the tool is required for certain types of funds, if so for what type(s)?
    d. Is there a maximum amount of time to resolve the issue which led to the activation of the exceptional liquidity management tool?
    e. Can the tool also be used in normal circumstances?
    f. How are investors informed of the existence of the tool and, if applicable, of its activation?
    g. Can the tool be activated by the asset manager and / or the regulator?
    h. Past experience: Was the tool used / if so when and for what reason? If the information is available, what was the outcome? Were there circumstances where the fund was subsequently liquidated? Do you have knowledge of any broader impact (beyond the fund itself)?

Twenty-seven members (26 jurisdictions) responded to the survey. For a list of survey respondents please consult Table 1 below.

Table 1: List of participating jurisdictions

Jurisdiction	Organisation	Abbreviation
Australia	ASIC	AU
Belgium	FSMA	BE
Brazil	CVM	BR
Canada	OSC and AMF Québec	CA
China	CSRC	CN
France	AMF	FR
Germany	BaFin	DE
Hong Kong	SFC	HK
India	SEBI	IN
Ireland	Central Bank of Ireland	IR
Israel	ISA	IS
Italy	CONSOB	IT
Japan	JFSA	JP
Jersey	FSC	JE
Luxembourg	CSSF	LU
Mexico	CNBV	MX
The Netherlands	AFM	NL
Portugal	CMVM	PO
Romania	ASF	RO
Singapore	MAS	SG
South Africa	FSB	SA
Spain	CNMV	ES
Switzerland	FINMA	CH
Turkey	CMB	TU
UK	FCA	UK
USA	SEC	US

Source: Compiled by IOSCO Research from C5 survey respondents

Results of the survey

What follows below is a synthesis of the responses to the above-mentioned questions. The summary is meant to capture the overarching messages conveyed in the responses. The summary should not be taken as being representative of any individual jurisdiction, unless otherwise stated.

Responses to the question: What type of liquidity management tool is available in your jurisdiction? (e.g., Gates, Side pockets, Suspension of redemptions, Redemption in kind, Valuation at bid price, Swing pricing / Anti-dilution levy / redemption fee, Other?)

Table 2 presents a full matrix of tools available in responding jurisdictions. On inspection, the tools available are as varied as the jurisdictions that responded. In some cases, tools are only available for a subset of investment funds (e.g., money market funds, hedge funds or real estate funds).

The table indicates there are many common policy tools available to multiple jurisdictions. For example, a majority of jurisdictions reported that the following tools were available in their jurisdiction:

- Redemptions fees
- Redemptions gates[1]
- Redemptions in kind
- Side pockets
- Suspension of redemptions

The one common policy tool available in all reporting jurisdictions is the ability to suspend redemptions. When and how this tool can be applied varies across jurisdictions. Generally speaking, suspension of redemptions is at the discretion of the fund manager and is implemented to ensure equitable treatment of all investors in a fund and motivated by the need to act in the investors' best interest. Additionally, in some instances, suspension of redemptions can be invoked when the daily redemption requests of a fund exceed a predefined threshold as a percentage of assets under management (AuM). This threshold is between 5% and 25% of AuM, based on responses to the survey.[2] In some circumstances a suspension of redemptions may also be implemented when the market where the underlying assets are traded is closed. Suspensions of redemptions have happened on several occasions over time and for a variety of reasons, ranging from market closures, cyclones, custodian liquidation, cyber-security related incident affecting the manager etc. In some jurisdictions, suspension of redemptions may be imposed by the regulator if it is deemed in the public interest or for financial stability reasons (e.g. in the EU). Many jurisdictions have tailored tools to address liquidity management risk, too.

[1] In some jurisdictions the ability to implement redemption gates was only available to funds that were not of a retail focus (private or alternative funds).

[2] The threshold naturally depends on the jurisdictions and the type of fund. In some jurisdictions, closed-end funds have a higher proportional threshold than open-ended funds.

Table 2: Availability of policy tools to manage internal fund liquidity in selected jurisdictions

Availability of tools																										
Tools ↓	**AU[1]**	**BE[16]**	**BR[2]**	**CA[3]**	**CN**	**FR[4]**	**DE[5]**	**HK[15]**	**IN**	**IR**	**IS**	**IT[6]**	**JP**	**JE**	**LU**	**MX**	**NL**	**PO[7]**	**RO[17]**	**SG[8]**	**SA[9]**	**ES[10]**	**CH[11]**	**TU[12]**	**UK[13]**	**US[14]**
Swing pricing						✔		✔		✔		✔		✔	✔	✔	✔			✔			✔		✔	
Redemption fees	✔		✔	✔	✔	✔	✔	✔	✔	✔		✔		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Anti-dilution levy						✔		✔		✔		✔	✔	✔	✔		✔		✔	✔					✔	
Redemption gates						✔		✔	✔	✔		✔		✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔
Redemptions in kind	✔		✔	✔		✔	✔	✔		✔				✔	✔	✔	✔	✔		✔	✔	✔	✔		✔	✔
Side pockets	✔		✔		✔	✔		✔		✔		✔		✔	✔	✔				✔	✔	✔			✔	✔
Suspension of redemptions	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Other:																										
Isolation feeder funds			✔																							
Timing restrictions between subscription and redemption			✔				✔						✔		✔						✔	✔				
Limits on illiquid asset investment	✔			✔		✔	✔	✔	✔	✔	✔		✔		✔	✔	✔		✔	✔	✔		✔	✔	✔	✔
Limits on asset concentration			✔	✔		✔		✔	✔	✔	✔		✔		✔		✔		✔	✔	✔	✔	✔	✔	✔	✔
Limits on derivatives use			✔	✔		✔	✔	✔	✔	✔	✔		✔		✔		✔		✔	✔	✔	✔	✔	✔	✔	
Limits on leverage				✔		✔	✔	✔	✔	✔	✔		✔		✔		✔		✔	✔	✔	✔	✔	✔	✔	✔
Liquidity buffers						✔	✔														✔					
Maturity restriction			✔	✔		✔		✔	✔	✔			✔		✔				✔		✔		✔	✔	✔	✔

Tools ↓	AU[1]	BE[16]	BR[2]	CA[3]	CN	FR[4]	DE[5]	HK[15]	IN	IR	IS	IT[6]	JP	JE	LU	MX	NL	PO[7]	RO[17]	SG[8]	SA[9]	ES[10]	CH[11]	TU[12]	UK[13]	US[14]
Short term borrowings				✓		✓	✓	✓	✓	✓		✓	✓		✓				✓			✓		✓	✓	✓
Hardship relief	✓																									
Rolling withdrawals																										
Off-market transfers	✓																									
Buybacks	✓		✓																					✓		
Withdrawal rights	✓			✓																						
Valuation at bid price						✓								✓	✓			✓		✓		✓			✓	
Exemptions to redeem at anytime																							✓			
Manager's Box														✓												
Limit invest to exchange traded products only									✓			✓												✓		

Source: Compiled by IOSCO Research from C5 survey respondents

Notes:

1. Applies to retail funds and alternative funds including closed-end funds. Limits on illiquid investments apply where the fund offers ongoing redemptions.
2. Maturity restrictions apply only to MMFs and liquidity buffer applies to open-ended real estate funds; Buybacks are available for specific types of funds, in particular a recently created type that invests in equity of small and medium companies.
3. In Canada, some of the tools available are not applicable to closed-end funds. Maturity restrictions apply to MMFs.
4. Maturity restrictions apply only to MMFs. Some of the tools mentioned such as the limits on asset concentration may vary depending on the type of funds considered. In France, gates are available for non-retail funds only.
5. Minimum investment periods and liquidity buffers apply to open-ended real estate funds. For funds with more than one investor, redemptions in kind are subject to the conditions of vertical slicing (i.e. the redeemed assets have to mirror proportionally the composition of the fund's portfolio).
6. In the case of Italy, gates and side pockets can only be used in other (non-retail) funds, as long as the interests of the funds' participants are upheld.
7. In the case of Portugal, redemption gates apply only in the case of real estate CIS.
8. Gates and side pockets have been observed in alternative investment funds.
9. Liquidity buffers and maturity restrictions only apply to Money Market Funds in South Africa.
10. Gates and timing restrictions between subscriptions and redemptions only apply to Alternative investment funds in Spain.
11. Depending on the type of fund and its intended investment strategy, FINMA disposes of different other liquidity management tools which apply on a case by case basis.
12. In Turkey, the general rule is to invest only in exchange traded products. On the other hand specific exemptions exist, such as OTC derivatives, OTC repos up to 10% of the fund's NAV
13. In the UK, gates are allowed for non-retail funds only, however deferred redemption may be used for retail funds.
14. In the case of the USA, the responses above are generally applicable to open-end funds. However, the use of side pockets is generally applicable only to hedge funds and not open-end or closed-end funds. Responses corresponding to suspension of redemptions, redemption fees, redemption gates and redemptions-in-kind are generally not applicable to closed-end funds because they do not generally offer redemption privileges.
15. In Hong Kong, maturity restrictions apply to SFC authorised MMFs.
16. Applies to retail funds, other type of funds can contractually determine the policy tools available
17. In Romania, maturity restrictions apply only to MMFs. Illiquid asset investments generally refer to unlisted companies.

The “Other” section of the table shows many other tools that are in use. Some jurisdictions implement investment limits across the portfolio composition. For example, in some jurisdictions, limits on illiquid investments, leverage asset concentration and derivatives use are applicable.

However, it should be noted that many of the “Other options” are in fact regulatory requirements. That is, unlike optional policy tools, fund managers/asset managers must comply with these requirements.

Also in some jurisdictions, funds are allowed to borrow short-term to meet liquidity pressures, while in others, funds are allowed to execute redemption orders at the current market bid price.

Responses to the question: Does your regulatory framework define liquidity and/or liquid instrument, if so how?

Table 3 below is a matrix of responses to regulatory definitions of liquidity or liquid instruments. The range of responses spans from no formal definition at all to having quite granular specifications, including lists of asset classes considered to be “liquid” in nature (for example in Hong Kong, Australia and South Africa). However, the majority of respondents to the survey pointed out that in their jurisdiction there is no formal definition of liquidity.

Where some type of definition does exist, the definition could be considered to be more principle-based rather than prescriptive. In other words, the scope of the application of the definition could be considered quite broad with the onus on the fund to determine liquidity readiness. For example, many European jurisdictions highlighted that the UCITS European directive considers a money market instrument liquid if it can be sold at minimal cost, within a reasonably short time frame and fulfils the fiduciary redemption obligations of the fund. “Minimal cost” and “reasonably short timeframe” are not prescriptive. The European framework specifies the types of assets eligible for UCITS and restricts investments in assets deemed illiquid. Additionally, in some jurisdictions (for example in Australia and Brazil) assets are defined as liquid *if the fund* can reasonably expect to sell the asset at its market value within the redemption period set out by the fund investment documentation. Consequently, a rigid definition is avoided and the focus, instead, is placed back on the fund and its responsibility to balance the offer of liquidity to its investors with the liquidity of the assets the fund invests in.

Contrast this with the U.S. SEC staff’s definition of illiquid security, which generally states illiquid assets are securities that cannot be sold or disposed of in the ordinary course of business within seven calendar days (USA) at approximately the value placed on it by the fund. Although still quite broad in its application, at a minimum, it places a time limit on the sale. Canada uses a very similar definition of illiquid assets as the US although it does not place a time limit on the sale of the securities and adds that an asset may also be considered as illiquid if it is a “restricted” security held by a mutual fund and as such cannot be resold easily.

Table 3: Definition of liquidity and/or liquid instruments by jurisdiction

Jurisdiction	Official definition	Additional comments
Australia [1]	No	A fund is liquid if 80% of its assets are in "liquid assets". A list of liquid assets is set out in the national statute, the Corporations Act.
Belgium	No	
Brazil	No	But data is collected on investments that could be sold under current market conditions within the period set out for the payment of redemptions.
Canada [2]	Yes	Illiquid assets are defined (includes specific definition for MMF)
China	No	Open-ended funds must keep cash and government bonds on hand (up to 5% of AuM) for the purposes of redemptions.
France	No	MM instruments considered liquid if sold at minimal cost, within a short time frame and fulfil the redemption obligations of the fund (European Directive).
Germany	No	Real estate funds must have 5% of AuM available for redemptions. This must be invested in banks deposits, money market instruments, units in certain funds and ECB admitted securities.
Hong Kong	Yes	Illiquid assets are defined as securities neither listed, quoted nor traded on a market (where "market" means any stock exchange, over-the counter market or other organised securities market that is open to the international public and on which such securities are regularly traded). An SFC-authorised Hong Kong domiciled fund may not invest more than 15% in such illiquid assets, and may not invest in real estate or physical commodities (other than precious metals).
India	Yes	While liquid assets may not be explicitly defined, "illiquid securities" are defined as non-traded, thinly traded and unlisted equity shares and there are restrictions on investment in "illiquid securities". Liquid funds are required to invest in debt and MM securities with maturity of up to 91 days only.
Ireland	No	MM instruments consider liquid if sold at minimal cost, within a short time frame and fulfil the redemption obligations of the fund (European Directive).
Israel	No	
Italy	No	The assessment of the liquidity of assets must take into account current market conditions (i.e., the value at which the assets can be liquidated).
Japan	No	But MMF are limited to investments in Bonds, CP, CD, loan trusts, money trusts, deposits, callable loans, bills sec lending and repo.
Jersey	No	But "near cash" alternatives are defined.
Luxembourg	No	MM instruments considered liquid if sold at minimal cost, short time frame and fulfil the redemption obligations of the fund (European Directive).
Mexico	Yes	Existing regulation considers liquid assets those assets representing up to fifty percent of daily trading volume on average of the last sixty business days, in the market where they are traded, by issuer and type of instrument.
The Netherlands	No	Dutch law gives conditions on which assets may be considered liquid and under what conditions. Mainly, assets can be sold at short notice and at minimal cost, or are cash or near-cash at immediate disposal.
Portugal	No	
Romania	No	MM instruments considered liquid if sold at minimal cost, short time frame and fulfil the redemption obligations of the fund (European Directive).
Singapore	Yes	Defined as the ability of a financial instrument to be readily converted to cash at a value close to its fair value under normal market conditions.
South Africa	Yes	Cash like liquid assets defined as: cash at central bank, or a bank, positive net balance in settlement accounts, MMF holdings and other instruments
Spain	Yes	An instrument is liquid if it can be converted to cash at any time without substantial loss.
Switzerland	No	

Jurisdiction	Official definition	Additional comments
Turkey	No	MMFs are limited to investments in instruments with a maturity no greater than 184 days, and a daily calculated weighted average maturity of portfolio with a maximum of 45 days.
UK	No	Liquidity risk is defined as a position that cannot be sold, liquidated or closed out at limited cost in an adequately short timeframe, and the ability of the scheme to comply at any time with its sale and redemption obligations is compromised.
USA	Yes	An “illiquid security” is defined by the SEC staff as a security that cannot be sold or disposed of in the ordinary course of business within seven calendar days at approximately the value ascribed to it by the fund

Source: Compiled by IOSCO Research from C5 survey respondents

Notes: 1) In Australia, the list of liquid assets includes: money with a bank; bank accepted bills; marketable securities; other property, and other property that can reasonably be expected to be realised at market value within the period for satisfying redemption requests. **2)** In Canada, MMFs have to meet certain liquidity tests in order to qualify as MMFs under the regulations.

Responses to the question: "Does your regulatory framework contain provisions on how to manage liquidity beyond the overarching principle that managers should ensure investors can redeem at the frequency set in the funds' constituting documents"?

This section summarises the responses to the question on extra regulatory liquidity management provisions available in jurisdictions. A matrix is presented below in Table 4. Generally speaking, many jurisdictions indicated that funds have a fiduciary duty to investors to ensure that assets must be able to meet the funds liabilities. In other words, the liquidity profile of investments and the redemption policies of the fund should be consistent. To ensure this, as highlighted in Table 2 in a previous section, some jurisdictions specifically limit the amount of illiquid asset investment by certain funds and the amount of leverage a fund can take on.

Additionally, many responded that funds should have appropriate risk management and internal controls to ensure that all material risks are properly identified, assessed, monitored and controlled. For example, under European UCITS and AIFM directives, a fund manager should be able to demonstrate that appropriate and effective liquidity management policies and procedures are in place. In particular, the liquidity of the fund and the instruments used need to take into account various factors such as trading frequency, volume, the number of transactions, the availability of market prices, bid-ask spreads and whether selling will have any market impacts. Further, stress testing the portfolio under various market scenarios is cited as a way to identify corresponding risks. In this regard, the AIFMD goes one step further than UCITS and introduces a formal requirement for funds to undertake regular stress tests.[3] Many other jurisdictions outside of the European Union indicated that fund risk needed to be properly identified through the use of different stress test scenarios (Hong Kong, Brazil, Switzerland and South Africa).

Finally, a few jurisdictions responded that they do not have liquidity management provisions over and above the general principle that investors may redeem subject to the timeframe set out in the disclosure documents/fund constitution.

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[3] Art. 40 (3) of the UCITS Directive requires liquidity stress tests "where appropriate".

Table 4: Extra regulatory provisions on managing fund liquidity by jurisdiction

Jurisdiction	Extra provisions	Additional comments
Australia	Yes	In exceptional circumstances and on specific application to the regulator - Special relief for hardship, rolling withdrawals.
Belgium	Yes	Through the UCITS and AIFMD directives; conduct stress tests; implement risk management systems; risk limits; act in the best interest and equal treatment of shareholders; UCITS Funds should have adequate procedure to manage liquidity risk to ensure investors can redeem at the frequency set in the funds' constituting documents
Brazil	Yes	Fund assets should meet fund liabilities; stress testing of asset liquidity and redemption requests is required. Other liabilities besides redemptions must also be taken into account.
Canada	Yes	Concentration restrictions; illiquid investment restrictions; fair value calculation of NAV; 3 day limit to pay redemption proceeds; leverage restrictions, and the obligation for the fund manager to act in the best interest of the investment fund
China	No	
France	Yes	Through the UCITS and AIFM directives; conduct stress tests; implement risk management systems; risk limits; act in the best interest and equal treatment of shareholders.
Germany	Yes	Conduct stress tests; implement risk management systems; risk limits; act in the best interest and equal treatment of shareholders.
Hong Kong	Yes	Illiquid asset investment restrictions for funds; risk monitoring; stress testing; establish risk management system; counterparty limits; fair valuation of fund assets.
India	Yes	Required to conduct stress tests; reduce concentration risk in the investor base; principles of fair valuation; implementation of risk management system; act in best interest and equal treatment of all unitholders; restriction on maturity; restriction on investment in illiquid assets; restrictions on investments in securities issued by associate / group companies; listing of close ended schemes on recognised stock exchange.
Ireland	Yes	Through the UCITS and AIFMD directives; conduct stress tests; implement risk management systems; risk limits.
Israel	Yes	The activities of fund managers, including liquidity risk management, are subject to fiduciary duty and duty of care requirements. In addition: risk and concentration limits; act in the best interest and equal treatment of unit-holders; Illiquid asset investment restrictions.
Italy	Yes	Liquidity managed in accordance with EU regulation 231/2013.
Japan	Yes	Concentration restrictions on investments, illiquid asset investment restrictions for MMFs.
Jersey	Yes	Conduct stress tests; implement risk management systems; risk limits and act in best interests of shareholders; have adequate finances and insurance.
Luxembourg	Yes	Through the UCITS and AIFMD directives; conduct stress tests; implement risk management systems; risk limits and act in best interest of shareholders; equal treatment of shareholders.
Mexico	Yes	Liquidity policies of funds must be included in prospectus.
The Netherlands	Yes	Through the UCITS and AIFM directives; conduct stress tests; implement risk management systems; risk limits; act in the best interest and equal treatment of shareholders.
Portugal	Yes	Through the UCITS and AIFM directives; conduct stress tests; implement risk management systems; risk limits; act in the best interest and equal treatment of shareholders
Romania	Yes	Through the UCITS and AIFMD directives; conduct stress tests; implement risk management systems; risk limits.
Singapore	Yes	Illiquid asset investment restrictions for retail funds; termination of sec lending and repo agreements to meet redemption obligations.
South Africa	Yes	All funds must comply with the following requirements: have no debt other than the investor liability book and a possible short term 10% borrowing limit to manage short term operational short falls (e.g., redemptions), have a proper risk management programme applied, may apply a staggered redemption process, suspend

Jurisdiction	Extra provisions	Additional comments
		redemptions for 14 days, comply with the fiduciary duty to act at all times in the best interests of investors, comply with concentration restrictions and illiquid securities restrictions, use fair value to calculate NAV. Further, MMFs are required to have stress testing, 4% liquid assets, average maturity of 120 days, duration of 90 days, no investments in instruments over 13 months maturity.
Spain	Yes	Through the UCITS and AIFMD directives; conduct stress tests; implement risk management systems; risk limits.
Switzerland	Yes	Implement separate risk management systems and internal control systems; risk control principles and risk limits.
Turkey	Yes	Illiquid asset investment restrictions; implement risk management systems; during "acts of god", fund founder/asset manager can determine the valuation principles and temporarily halt redemptions and reject purchases with the consent of the regulator in extraordinary circumstances.
UK	Yes	Through the UCITS and AIFMD directives; conduct stress tests; implement risk management systems; risk limits.
USA	Yes	Leverage limitations; concentration restrictions; illiquid investment restrictions; prohibition on suspending the right of redemption and postponing the payment of redemption proceeds for more than seven days; redemption fees capped at 2% of the amount redeemed

Source: Compiled by IOSCO Research from C5 survey respondents

Responses to the question: Whether the tool requires prior authorization by the regulator to be considered and / or to be activated?

Table 5 presents the responses to the question on whether regulatory authorisation is required to activate liquidity management tools. The table highlights that in many jurisdictions the ability to enact or activate unusual liquidity provision requirements rests with the funds (be it manager/owner or trustee), under the guiding principle that it must have shareholder best interests in mind.[4] Moreover, the use of such tools, generally, does not need approval from the responsible regulator. In many jurisdictions, however, the possible use of such tools must be highlighted first in the prospectus and/or constitution documents of the funds; essentially setting out "the rules of the game" beforehand. Some jurisdictions noted that they approve such documentation before it is made public. Consequently, there is a quasi-approval process in some jurisdictions.

When a liquidity tool is activated (especially suspension of redemptions), the responsible regulator is frequently notified of its use. Finally, even if a liquidity management tool is not listed previously in the offer documentation, its use is not precluded. In such circumstances, special requests can be lodged with the responsible regulator, as long as the principle of fairness to all fund holders is upheld. It is also the case in some jurisdictions that the use of certain tools is subject to approval by the investors, for example in Brazil.

Responses to the question: Whether the regulatory framework contains specific provisions in relation to this tool and / or is there market guidance?

Table 6 presents the responses to the question on regulatory guidance on the activation and the parameters around the use of liquidity management tools. The table highlights that in many jurisdictions guidance is indeed provided for many of the tools; in particular, guidance on the activation of suspension of redemptions is common across jurisdictions. Where guidance is not imbedded in the local legislation or regulatory framework, specific guidance is provided by the regulator through rules or guidance notices. Again, one of the common themes of the responses was that regardless of the liquidity tool, regulatory frameworks and guidance required that their use, at the initiative of the fund (manager / Board / Trustee), must be in the interest of shareholders.

[4] For information on tools that can be activated by the regulator, see Table 11

Table 5: Regulatory authorisation for the use of liquidity management tool by jurisdiction

	AU[1]	BE[2]	BR[3]	CA[4]	CN	FR[2]	DE[5]	HK[7]	IN[8]	IR[8]	IS[16]	IT[2]	JP	JE[5]	LU[6]	MX[9]	NL	PO[8]	RO[17]	SG[10]	SA[11]	ES	CH[8]	TU[8]	UK[15]	US[12 13]
Swing pricing						X		X		X				X	X	X	X			X			X		X	
Redemption fees			X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X
Anti-dilution levy						X		X		X		X	X	X	X		X		X	X					X	
Redemption Gates	✔					✔		X	X	X		X		X	X	X	X	X	X	X	X	X	X		X	X
Redemptions in kind	✔		X	X		X	X	✔		X				X	X	X	X	✔		X	X	✔	X		X	✔[14]
Side Pockets	X		X		X	X		X		X		X		X	✔	X				X	✔	✔			X	X
Suspension of redemptions	X	X	X	✔	X	X	X	X	X	X	✔	X	X	X	X	X	X	X	X	X	X	✔	X	✔	X	✔

Source: Compiled by IOSCO Research from C5 survey respondents

Legend: X : No regulatory approval required

✔ : Regulatory approval required

Notes: 1. Uses of liquidity management tools do not require authorisation; Regulator must be notified of other liquidity management tools.

2. Supervisory authorities must be informed immediately of the activation of side pockets and suspension of redemptions. Liquidity tools must be listed in the constitution documents.

3. The only tool that can be activated by the fund operators independently is the suspension of redemptions. The activation of redemptions in kind and side pockets will usually have to be approved by the investors. Redemption fees must be stipulated in the constitution and offering documents and can only be changed with the approval of the investors.

4. Liquidity tools must be listed in the constitution documents. Approval from the regulator is generally required to suspend redemptions, except when trading is halted on an exchange where more than 50% of fund´s portfolio assets are listed.

5. Liquidity tools must be listed in the constitution documents; authorised funds must inform the regulator when it wants to suspend redemptions.

6. Liquidity tools must be listed in the constitution documents, which are approved by the regulator; the use of suspension of redemptions must be notified to the regulator; side pockets for AIF require authorisation.

7. No prior approval is required for activation of liquidity tools that have been clearly disclosed in the offering documents. Management companies must immediately notify HK SFC if redemption is suspended. Suspension of redemptions may be provided for only in exceptional circumstances, and while regarding the interests of holders; approval from the regulator is required for the use of side pockets.

8. Liquidity tools must be listed in the constitution documents, which are approved by the regulator. No preapproval required for activation.

9. Redemption gates can be enacted by the regulator in times of extreme market volatility.

10. Fund must ex post demonstrate that liquidity tool use was in best interest of investors.

11. Although regulatory authorisation is not required, fund trustee authorisation is.

12. With respect to suspension of redemptions, no regulatory approval is required if the NYSE is closed; otherwise, an application must be submitted to the regulator, and the regulator may grant such an order, however, only if it determines that the order is necessary for the protection of the fund's shareholders. MMFs can suspend redemptions by seeking prior approval from the regulator, and subject to certain conditions. MMFs may also impose redemption gates and liquidity fees under specific circumstances and subject to certain conditions without the prior approval of the regulator.

13. In the case of the US, the responses above are generally applicable to open-end funds registered under the Investment Company Act of 1940, and under certain circumstances and subject to certain conditions (e.g., open-end funds may suspend redemptions without approval from the regulator if the NYSE is closed, and may suspend redemptions otherwise with approval from the regulator). It is our understanding that the extent to which hedge funds (i.e., private funds generally exempt from registration under the Investment Company Act of 1940) impose restrictions on investor withdrawals and redemptions vary. The use of side pockets is generally only applicable to hedge funds. In general, any restrictions or use of side pockets is disclosed in the hedge funds' offering documents. Closed-end funds generally do not provide redemption privileges. MMFs (i.e., a type of open-end fund registered under the Investment Company Act of 1940) may also impose redemption gates and liquidity fees under specific circumstances and subject to certain conditions.

14. An open-end fund's right to redeem securities in kind when an affiliated person has an interest is limited by affiliated transaction prohibitions.

15. Liquidity tools must be listed in the constitution documents; authorised funds must immediately inform the regulator of the suspension and the reason for doing so.

16. The "suspension of redemptions" tool can be activated only by the regulator, under the circumstances described in Section 48 of the Israeli Joint Investment Trusts Law 5754 -1994. In accordance with the law: the Authority Chairman may: (1) after consultation with the chairman of the Board of Directors of the Stock Exchange in Israel order that the offer or redemption of units in an open fund be suspended, generally or by categories of funds, for a period of not more than three trading days, if no trading took place or if the results of trading severely disrupted the ability to buy or sell securities for a fund or to calculate the acquisition and sale prices of a fund's assets; (2) permit – on a written application from the manager of an open fund with approval by the Trustee – that the redemption of units be suspended for a period of not more than three trading days, if the Fund Manager is unable to redeem units because of a severe disturbance in the orderly progress of his work or of the work of whoever provides services for the Fund Manager; during an aforesaid period of suspension units shall not be offered to the public; (3) order – after consultation with the Capital Market, Insurance and Savings Commissioner in the Ministry of Finance and after he has given the Fund Manager and the Trustee an appropriate opportunity to present their arguments – that the offering of units and their redemption in an open fund be suspended for a period that shall not exceed seven trading days, if he concluded that without a suspension the interest of the unit holders might be harmed.
17. Use of liquidity management tools do not require authorisation (as long as the they are included in the fund’s prospectus); Also, the regulator can, if it considers suited in the best interest of the investors, to oblige the asset management company to lift the suspension/limitation of units or shares imposed by through the liquidity management tools. Also, there is a requirement to communicate, without delay, the investment management company’s decision to enable liquidity management tools (e.g. temporary suspension of redemption of units or shares) to the Romanian regulator and national competent authorities (NCAs) of all the EU Member States where the fund is marketed.

Table 6: Regulatory guidance provided on the use (including parameters) of liquidity management tools by jurisdiction

	AU[1]	BE[2]	BR[3]	CA[4]	CN [4]	FR [5]	DE	HK[6]	IN[4]	IR[7]	IS[21]	IT[8]	JP	JE[9]	LU [10]	MX[11]	NL	PO[12]	RO[13]	SG[14]	SA [15]	ES[16]	CH	TU	UK[17]	US [18]
Swing pricing						X		✓		X				✓	X	✓	✓			X			X		✓	
Redemption fees			✓	✓	✓	X	X	✓	✓	✓		X		✓	X	✓	X	X	X	X	X	✓	X	✓	✓	✓
Anti-dilution levy						X		✓		✓		X	X	✓	X		X		X	X					✓	
Redemption Gates	✓					✓		✓	✓	✓		X		✓	X	✓	X	X	X	X	✓	✓	X		✓	✓ [19]
Redemptions in kind	✓		✓	✓		✓	X	✓		✓				✓	X	✓	X	X		X	X	✓	X		✓	✓ [20]
Side Pockets	X		✓		✓	✓		✓		✓		X		✓	X	✓				X	✓	✓			X	
Suspension of redemptions	✓	✓	✓	✓	✓	X	X	✓	✓	✓	✓	✓	✓	✓	X	✓	✓	✓	X	✓	✓	✓	X	✓	✓	✓

Source: Compiled by IOSCO Research from C5 survey respondents

Legend: X: No regulatory guidance provided

✓ : Regulatory guidance provided

Notes: 1. The Corporations Act outlines the criteria for suspension of redemption, withdrawal offers and rights. ASIC guidance provided on hardship payments.

2. Suspension of redemptions use outlined in the regulatory framework.

3. Side pockets - investors can decide to split fund in two at any time; Suspension of redemptions under exceptional circumstances; all tools can only be activated if previously disclosed in prospectus.

4. Guidance provided for in regulatory framework.

5. Specific regulatory guidance on exceptional tools (gates, redemption in kind, side pockets). Additionally, a charter from the French Asset Management Association provides some good practices with regard to the use of swing pricing and ADL.

6. Tools are either provided in HK SFC UT Code (e.g., redemption fees, deferral of dealings and suspension of redemptions), regulatory guidance issued to issuers, or available to management companies through market practice. Tools can be used in accordance with the disclosure in the offering documents.

7. Suspension of redemptions under exceptional circumstances; side pocket requires notification to regulator of use; specific rules concerning the use of redemption gates, which deal with thresholds for when redemption gates can be used and how unsatisfied redemption requests are to be dealt with.

8. Specific circumstances, including thresholds, for the use of suspension of redemptions are set out in the constitutional documents.

9. Guidance provided for in Recognised Fund Rules, CIF Codes and OCIF Guide.

10. Rules outlined in UCITS framework and other local legislations (redemptions in kind); notification on the use of suspension of redemption, including reasons.

11. Tools can only be used in stressed scenarios. Commission cannot force their use.

12. Only suspension of redemptions has predefined status.

13. The general approach is that market guidance is the key element in periods of extreme market conditions, as no predetermined scenario can offer 100% coverage in all crisis circumstance. The investment management company (SAI) must act in a prudential manner in the best interest of all of its funds 'investors (taking in consideration the provisions set in fund's prospectus). Hence, regulator guidance provided on use, should only be used in extreme market conditions.

14. Suspension of redemption should cease within 21 days of the commencement of the suspension. Fund must demonstrate ex post that the use of the liquidity management tool was in the best interest of investors.

15. Guidance provided on the use of suspension of redemptions only. Fund registrar to determine when other tools can be used.

16. All tools are outlined in the regulatory framework; valuation tools outlined in management company's procedures.

17. All tools can be activated only if previously disclosed in prospectus; suspension of redemptions must notify regulator and review the suspension every 28 days. Regulatory guidance is provided on the use of deferral of redemptions for retail funds.

18. SEC rules set forth the necessary conditions for use of these tools.

19. With respect to MMFs.

20. An open-end fund's right to redeem securities of which it is the issuer in assets other than cash is subject to certain rules and regulations.

21. The "suspension of redemptions" tool can be activated only by the regulator, under the circumstances described in Section 48 of the Israeli Joint Investment Trusts Law 5754 -1994. For further details please see footnote 16 in table 5 on page

Responses to the question: Is the tool required for certain types of funds, if so for what type(s)?

Table 7 presents the responses to the question on whether certain tools are only available for certain fund types. Generally speaking, the table highlights that across the board optional liquidity management tool availability is the same for all funds types. Where they do differ in some jurisdictions, it reflects the specific provisions applicable to certain types of funds (e.g., real estate funds) or different treatment of mutual funds vs alternative funds (e.g., the use of side pockets in the UCITS and AIFMD frameworks).

However, beyond these optional liquidity management tools, many jurisdictions also regulate the liquidity provision ability of funds through the use of regulatory requirement tools such as limits on asset concentration, counterparty concentration, the availability of short-term borrowing and limits on leverage. In this regard, it is worth noting that in most jurisdictions these regulatory requirements generally primarily apply to open-ended schemes while closed-ended funds are subject to much less stringent (or, in some cases, no) liquidity management requirements. Additionally, in the universe of open-ended funds, special requirements apply to money market funds in several jurisdictions.

Responses to the question: Is there a maximum amount of time to resolve the issue which led to the activation of the exceptional liquidity management tool?

Table 8 presents the responses to the question on time limits to resolve issues that forced the activation of liquidity management tool. The matrix clearly shows that across many jurisdictions, there are no time limits in place except for the tool “suspension of redemptions”.

The imposition of a time limit for the suspension of redemptions is common across many jurisdictions. The time range spans from 3 days to one month. In many jurisdictions, this time period can be extended for longer periods, subject to two requirements: 1) that the suspension is advised to the responsible regulator; and 2) it can be demonstrated that the prolonged use of the suspension is in the best interest of all shareholders. Finally, in a hand full of jurisdictions, some fund types can be suspended for up to 3 years.[5]

Responses to the question: Can the tool also be used in normal circumstances?

Table 9 presents the responses to the use of the liquidity management tools in normal times. Overall, the responses are mixed. In some jurisdictions, some tools can be used under normal market conditions, as long as they are previously outlined in the fund documents. While in others, the use of liquidity management tools is strictly for extraordinary market conditions. One policy tool, in particular, the suspension of redemptions, is solely for use in extraordinary circumstances in all jurisdictions (except in Australia and Mexico).

[5] In Germany, for example, the suspension of redemption with a period of three years is only applicable to open-ended real estate funds. If the reopening of the fund is not possible after three years, the fund has to be liquidated.

Table 7: Answers to the question – "Are tools available for only certain types of funds?" by jurisdiction

	AU[1]	BE	BR	CA	CN	FR[2]	DE	HK[3]	IN[3]	IR[4]	IS	IT[5]	JP[3]	JE	LU[4]	MX[6]	NL	PO[2]	RO	SG	SA[3]	ES[7]	CH[8]	TU	UK[11]	US[9]
Swing pricing						No		No		No				No	No	Yes	No			No			No		No	
Redemption fees			No	No	No	No	No	No	No	No		No		No	No	No	No	No	No	No	No	No	No	No	No	Yes
Anti-dilution levy						No		No		No		No	No	No	No		No		No	No					No	
Redemption Gates	No					Yes		No	No	No		Yes		No	No	No	No	Yes	No	No	No	Yes	No		No	Yes
Redemptions in kind	No		No	No		No	No	No		No				No	No	No	No	No		No	No	No	No		No	Yes [10]
Side Pockets	No		No		No	No		No		Yes		Yes		No	Yes	No				No	No	No			Yes	Yes
Suspension of redemptions	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Source: Compiled by IOSCO Research from C5 survey respondents

Notes:
1. Special requirements on ETFs.
2. The French law only mentions the possibility of having recourse to gates for real estate funds but in line with AMF guidance, gates can also be used by other types of funds offered to qualified investors (e.g., hedge funds or funds of hedge funds.
3. Tools are generally available provided that clear disclosure has been made in the funds' offering documents.
4. Side pockets for alternative investment funds only.
5. Side pockets and redemption gates for alternative investment funds only.
6. Swing pricing can only be used by debt and equity funds.
7. Gates for alternative investments and real estate funds; side pockets are not available for Real Estate funds.
8. The use of tools is not required by Swiss law.
9. In the case of the US, the responses above are generally applicable to open-end funds registered under the Investment Company Act of 1940, under certain circumstances, and subject to certain conditions (e.g., open-end funds may suspend redemptions if the NYSE is closed). It is our understanding that the extent to which hedge funds, private funds generally exempt from registration under the Investment Company Act of 1940, impose restrictions on investor withdrawals and redemptions vary. The use of side pockets is generally only applicable to hedge funds. In general, any restrictions or use of side pockets is disclosed in the hedge funds' offering documents. Closed-end funds generally do not provide redemption privileges. MMFs, a type of open-end fund registered under the Investment Company Act of 1940 may also impose redemption gates and liquidity fees under specific circumstances and subject to certain conditions.
10. Redemptions in kind are generally applicable to open-end funds.
11. Side pockets and redemption gates for alternative funds only; however, retail funds may use deferred redemption.

Table 8: Responses to "*Is there a maximum time to resolve the issue which led to the activation of the tool?*"

	AU	BE	BR	CA	CN	FR	DE[1]	HK[2]	IN	IR[3]	IS[4]	IT	JP	JE	LU[5]	MX	NL	PO	RO	SG[6]	SA[7]	ES[8]	CH	TU	UK[9]	US
Swing pricing						No		No		No				No	No	No	No			No			No		No	
Redemption fees			No	No	No	No	No	No	No	No		No		No	No	No	No	No	No	No	No	No	No	No	No	No
Anti-dilution levy						No		No		No		No	No	No	No		No		No	No					No	
Redemption Gates	No					No		No	No	No		No		No	No	No	No	No	No	No	No	No	No		No	Yes[10]
Redemptions in kind	No		No	No		No	No	No		No				No	No	No	No	No		No	No	No	No		No	No
Side Pockets	No		No		No	No		No		No		No		No	No	No				No	No	No			No	No
Suspension of redemptions	No	No	5 days	No	No	No	Yes	No	No	Yes	Yes	1 mth	No	28 days	No	No	No	No	No	21 days	Yes	Yes	No	No	Yes	7 days[11]

Source: Compiled by IOSCO Research from C5 survey respondents

Notes:
1. Real estate funds can suspend for up to 2 years. No time limit on other funds.
2. No prescribed maximum time provided, but management companies must act in the best interests of the shareholders at all times.
3. For suspension of redemptions, the time limit is only for a matter of days, but sometimes issues cannot be resolved in that timeframe, therefore it can be extended for a considerable time if needed. Many of the other tools apply in the ordinary course of business (e.g., swing pricing, redemption fees) and not just when a particular liquidity issue arises.
4. Can be suspended between 3-7 days. Extension can be applied up to 60 consecutive days. The "suspension of redemptions" tool can be activated only by the regulator, under the circumstances described in Section 48 of the Israeli Joint Investment Trusts Law 5754 -1994. For further details please see footnote 16 in table 5 on page 18.
5. No time limit, but must justify that any prolonged use is in the best interest of shareholders.
6. Suspension can be extended if in the best interest of shareholders.
7. Timeline set out in the regulation for redemption periods.
8. Real estate funds can suspend for up to 2 years. No time limit on other funds.
9. Suspension must only be enacted for as long as needed and is justified to protect shareholders interest and must be reviewed every 28 days
10. A MMF that imposed a redemption gate per rule 2a-7 under the Investment Company Act of 1940 would be required to lift that gate within 10 business days, although the board of directors could determine to lift the gate earlier. MMFs would not be able to impose a gate for more than 10 business days in any 90-day period.
11. US regulation generally prohibits open-end funds (other than MMFs as discussed above) from suspending the right of redemption and postponing the payment of redemption proceeds for more than seven days, unless approval from the regulator is received (e.g., in the case of emergencies).

Table 9: Responses to "Can *the liquidity tools be used in normal circumstances*"

	AU	BE	BR	CA	CN	FR	DE	HK	IN	IR[1]	IS	IT	JP	JE[3]	LU[9]	MX[3]	NL[9]	PO	RO[10]	SG	SA	ES[4]	CH	TU	UK	US[5]
Swing pricing						Yes		Yes		Yes				Yes	Yes	Yes	Yes			No			Yes		Yes	
Redemption fees			Yes	Yes	Yes	Yes	No	Yes	Yes	Yes		Yes		Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Anti-dilution levy						Yes		Yes		Yes		Yes	Yes	Yes	Yes		Yes		Yes	No					Yes	
Redemption Gates	Yes					Yes		Yes	No	No		No		No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No		Yes	Yes[6]
Redemptions in kind	Yes		Yes	Yes		No	No	Yes		No				Yes	Yes	Yes	Yes	Yes		No	No	No	No		Yes	Yes[7]
Side Pockets	Yes		Yes		Yes	No		Yes		No		No		No	No	Yes				No	No	No			Yes	Yes[8]
Suspension of redemptions	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No

Source: Compiled by IOSCO Research from C5 survey respondents

Notes:

1. Open-ended alternative investment funds can use side pockets in exceptional circumstances; however, for certain qualifying investor alternative investment funds these can be used under normal conditions. Redemption gates and redemption in kind can only be used when redemptions exceed a predetermined threshold
2. Only if listed in the fund offer documentation.
3. Some of the tools can be used in normal times.
4. Redemption fees can be used under normal circumstances; redemption gates can be used (by Real Estate and Hedge Funds) under normal circumstances.
5. In the case of the US, the responses above are generally applicable to open-end funds under certain circumstances and subject to certain conditions. Closed-end funds generally do not provide redemption privileges.
6. Redemption gates can be used under normal market circumstances provided though that certain redemption thresholds are exceeded. MMFs may also impose redemption gates and liquidity fees under specific circumstances and subject to certain conditions.
7. Redemptions in kind are generally applicable to open-end funds.
8. Side pockets are generally used by hedge funds only.
9. In general, liquidity management tools can be used under normal circumstances if listed in the constitutional documents, with the exception of open-ended funds (then no).
10. As a self-regulatory industry standard, there is only the notable exception of anti-dilution levy (that can be used in normal market conditions) that investment management companies generally have in place, in order to discourage investors from disinvesting in the first year after subscription.

Responses to the question: How are investors informed of the existence of the tool and, if applicable, of its activation?

Table 10 below presents the responses to how investors are informed about the existence of tools and their activation. In terms of informing investors, the “rules of the game” in many jurisdictions are set out upfront in the fund documentation, be it a prospectus, fund constitution documents or other disclosure statements. That is, upfront disclosure is considered a common way to inform investors of liquidity management tools, how they might be used and under what scenarios.

Particularly for the suspension of redemptions, once this liquidity tool is activated, many jurisdictions reported that investors must be informed of their use, be it by public announcements, letter to investors, website update and/or continuous disclosure requirements. Other liquidity management tools, if outlined previously in fund documentation, did not require specific notification of their implementation to investors.

Responses to the question: Can the tool be activated by the asset manager and / or the regulator?

Table 11 below presents the responses to whether the tools can be activated by the asset/fund manager and/or by the regulator. The matrix should be interpreted in the following way, “Yes” indicates that the tool can be activated by the responsible regulator along with the asset/fund manager, while “no” should be interpreted as only the asset/fund manager has the ability to operate such tools.

The matrix clearly highlights that in most cases, regulators leave it up to the industry to determine when the activation of tools is required, but it must be demonstrated that it is in the best interest of shareholders. However, in relation specifically to the power to enact suspension of redemptions, many jurisdictions reported that regulators had the ability to request its activation (e.g., in the EU, regulators have the ability to require a suspension of redemptions of an investment fund if it is in the interest of the investors or the public). One reporting jurisdiction (Romania) indicated that regulatory power to activate extended to soliciting a temporary suspension of dealings only in the case of extreme market conditions and if it is proven that the investment management company does not act in the best interest of all the investors in its funds. Another jurisdiction (Singapore) mentioned they generally leave it to the industry to determine when the activation of tools is required, but the competent authority has broad powers to issue directions to managers to take such actions (e.g., suspend redemptions) as may be necessary or expedient in the public interest to do so. The guiding principle for regulatory action is that it is in the best interest of shareholders to do so.

Table 10: Media through which investors are informed of the existence and activation of liquidity management tools by jurisdiction

	AU[1]	BE	BR	CA[2]	CN	FR	DE[3]	HK	IN	IR[4]	IS[5]	IT	JP	JE	LU	MX	NL	PO	RO	SG	SA	ES	CH	TU	UK	US
Swing pricing						FD, Ann		FD		FD				FD	FD	FD, Ann	FD, IM			FD			FD		FD	
Redemption fees			FD	FD	FD	FD, Ann	FD	FD	FD, Ann	FD		FD		FD	FD	FD, Ann	FD, IM	FD, Ann	FD, Ann	FD	FD	FD	FD	FD	FD	FD, Ann
Anti-dilution levy						FD, Ann		FD		FD		FD	FD, Ann	FD	FD		FD, IM		FD, Ann	FD					FD	
Redemption Gates	FD					FD		FD	FD, Ann	FD		FD		FD	FD	FD, Ann	FD, IM	FD, Ann	FD, Ann	FD	FD	FD	FD, Ann		FD	FD, Ann
Redemptions in kind	FD		FD, IM	FD		FD, Ann	FD	FD		FD				FD	FD	FD, Ann	FD, IM	FD		FD	FD	FD, Ann	FD		FD, Ann	FD, Ann
Side Pockets	FD, Ann		FD, IM Ann		FD	FD, Ann		FD		FD		FD		FD	FD, Ann	FD, Ann				FD	FD	FD, Ann			FD	FD
Suspension of redemptions	FD, Ann	FD, Ann	IM, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, IM, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann	FD, Ann

Source: Compiled by IOSCO Research from C5 survey responses

Legend: FD: Fund Documentation, including prospectuses, constitution documents and any other disclosure statements
IM: Investor Meetings
Ann: Public Announcements, letter to investors, website update, continuous disclosure requirements

Notes: 1. Prior disclosure through fund documentation (PDS), activation notification through continuous disclosure requirements.
2. Redemptions in kind require prior consent from security holders.
3. Redemptions in kind require in the case of a retail fund the prior consent of all investors.
4. Notification is not required, although it is standard practice amongst funds.
5. Since the "suspension of redemptions" tool is indicated and described in the Israeli Joint Investment Trust Law, investors are informed of the existence of this tool through the Law.

Table 11: Does the regulator have the ability to activate the liquidity management tool?

	AU[1]	BE	BR[2]	CA	CN	FR	DE	HK[3]	IN	IR[2]	IS[9]	IT[2]	JP	JE[4]	LU	MX	NL	PO[2]	RO[5]	SG[5]	SA[6]	ES	CH	TU	UK[7]	US[8]
Swing pricing						No		No		No				No	No	No	No			No			No			
Redemption fees			No	No	No	No	No	No	No	No		No		No	No	No	No	No	No	No	No	No	No	Yes		No
Anti-dilution levy						No		No		No		No	No	No	No		No		No	No						
Redemption Gates						No		No	No	No		No		No	No	No	No	No	No	No	No	No	No			No
Redemptions in kind			No	No		No	No	No		No				No	No	No	No	No		No	No	No	No			No
Side Pockets	No		No		No	No		No		No		No		No	No	No				No	No	Yes				
Suspension of redemptions	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes

Source: Compiled by IOSCO Research from C5 survey respondents

Notes: "Yes" should be interpreted that the regulator, along with the asset/fund manager has the ability, to activate the respective liquidity management tool; "No" the asset/fund manager solely has the right to activate the liquidity measure, although in some circumstances they may need to inform the competent authority.

1. Responsible regulator only provides relief to legal requirements of the fund.
2. Suspension of redemptions can be activated by the regulator in the best interests of shareholders.
3. For suspension of dealings, the HK SFC may exercise regulatory powers in the public interest on a case-by-case basis.
4. The activation of a tool may also need regulatory approval.
5. Can activate temporary suspension of dealings in the public interest. On the other hand, the regulator can disable the tool activated by the investment management company, if it considers that is in the best interest of the funds' investors.
6. The regulator has the power to direct that any tool it requires to be implemented, be implemented. However, usually the regulator permits the tool and the manager and trustee decide whether to implement it or not. In the case of investor protection, the SA Regulator has the authority to determine and require implementation of any tool that is necessary to protect investors.
7. All of the tools could technically be activated by the regulator in the UK in the case of a threat to the regulator's objectives (market integrity, investor protection).
8. A fund may suspend redemptions for any period during which an emergency exists, as determined by the Commission and under certain circumstances, as discussed above.
9. The "suspension of redemptions" tool can be activated only by the regulator, under the circumstances described in Section 48 of the Israeli Joint Investment Trusts Law 5754 -1994. For further details please see footnote 16 in table 5 on page 18."

Past experience with the use of liquidity management tools, their outcome and impacts.

In the past there have been many examples where liquidity management tools have been used. Below are a summary of examples reported by jurisdictions in the survey, including the final outcome (where reported) and whether the activation of such tools created any broader impacts beyond the fund investors themselves.

Suspension of redemptions

Under exceptional market conditions, in many jurisdictions, investment funds can suspend redemptions. This has happened in the past in a number of jurisdictions and for a variety of reasons, such as the closure of specific stock exchanges and markets, difficulties in valuing a large portion of the assets and significant redemptions.

In Germany, in 2008, a number of open-ended real estate funds were forced to suspend redemptions. Consequently, Fund of Fund (FoF) of real estate investments were also forced to suspend.

In Spain, two real estate funds suspended redemptions for a period of two years. At which time, one fund reopened redemptions and the other liquidated. More recently, due to the insolvency of a Spanish Bank, the CNMV ordered the suspension of redemptions of 21 funds for which the bank was the depositary. Just recently, a new asset manager and depositary were appointed, enabling redemptions to resume. .

In Hong Kong, during the period from September 2007 to September 2015, eight short-term suspensions involving SFC-authorised Hong Kong-domiciled funds were reported, due to the temporary closure of markets in which substantial parts of the funds' investments were invested or pending final closure of the relevant funds.

Also in China, the HuaAn International Allocation Fund suspended redemptions in the wake of Lehman's collapse. The structured principle-guaranteed notes it held in relation to Lehman could not be valued accurately, so the fund took the decision to suspend redemptions for three years. In 2011, the fund entered liquidation.

The Romanian experience with the suspension of redemptions is quite recent. In 2014, three UCITS funds, all managed by the same investment management company, decided to temporarily suspend redemptions (and subscriptions) for a period of two months in order to restructure their portfolios. The funds needed to sell their holdings of municipal bonds, which represented 20% of their assets under management. Currently, the funds are still available to investors, although the manager plans to merge all three into a single UCITS fund in the near future.

In France, there have been a number of suspensions of redemptions since 2001, in most cases as a result of external events (2001 terrorist attacks, 2007-08 crisis etc.) and generally the funds reopened to suspensions after some time.[6]

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[6] For example, around the 11 September 2001 attacks, some funds that were significantly invested, directly or indirectly, in US stocks suspended redemptions for a few days. All these funds reopened to redemptions afterwards. Further suspensions occurred on five occasions during the summer of 2007: In the case of three funds, a decision was taken to liquidate each one by the relevant asset management company; the remaining two funds reopened to subscription and redemptions three weeks later. The suspensions were caused

Other incidents of where suspensions of redemptions have been enacted are in:

- Brazil: which were enacted for only a few days with no known extra impact outside of the funds holders;
- Ireland: receive 20-30 suspension notifications per annum, which largely relate to fund terminations. Such suspensions sometimes lead to complaints to the ombudsman or legal action;
- Mexico: mainly during the financial crisis with swing pricing also activated;
- Belgium: due, mainly to fund liquidation or mergers;
- Ontario: after the events of September 11 and other cases to facilitate the orderly liquidation and wind-up of investment funds;
- Japan: where suspensions have been allowed after trading on underlying securities markets was suspended. Redemptions resumed shortly afterwards;
- Switzerland: In Autumn 2008/ early 2009 less than10 Fund of Hedge Funds (FoHFs) had to suspend their redemptions during the crisis, mainly due to liquidity problems. It was impossible to calculate an accurate NAV with large scale withdrawals going on. A majority of affected FoHFs were subsequently dissolved;
- Turkey (after an attack on the headquarters of a local bank in 2003); and
- Luxembourg during 11th September 2001 and the 2007/2008 ABS/MBS-crisis.
- The Netherlands: mainly in 2008, in the world wide financial crises. Some smaller Dutch funds and real estate funds faced an unusual high level of request for redemption and were forced to suspend redemptions. Most solved this by liquidating, merging with others, or restructuring.

Redemption in kind

Some jurisdictions reported the use of redemptions-in-kind in the past, such as Brazil and the UK (especially for large institutional withdrawals). In Portugal such a tool has been used in connection with the liquidation of a fund. Luxembourg also saw limited redemptions-in-kind due to liquidity issues. Finally, in Jersey a number of schemes were set up to transfer the residual assets of suspended funds "in kind" back to the investors.

Gates and side pockets

In the crisis, many jurisdictions reported that hedge funds implemented the use of redemption gates and side pockets. In Italy some funds of hedge funds made use of redemption gates and side pockets; most side-pocketed assets have been liquidated with little impact beyond fund

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by the difficulties of assessing the value of securitised assets at the beginning of the subprime crisis. In April 2008, two funds suspended redemptions. The decision to reopen one of the funds was taken one month later. In the case of the second fund, the management firm decided to liquidate the fund four months later (the extended delay was decided by the asset management company in close cooperation with the small number of institutional unitholders. No retail investors were involved). The suspensions were activated when the market for securitised assets dried up during the subprime crisis, and valuing those assets became impossible. In autumn 2008, about 20 funds of hedge funds that suffered an unusually high level of redemptions and difficulties with the underlying funds faced significant liquidity issues. All funds reopened to redemptions afterwards. In early 2009, about 40 funds (mostly funds of funds) that were invested, directly or indirectly, in Madoff suspended redemptions. All these funds reopened to redemptions afterwards.

investors. Singapore also saw hedge funds activate gates and side pockets during the financial crisis. Some of these funds have subsequently been wound down.

After the collapse of Lehman Brothers, the French AMF authorised the use of redemption gates in funds of hedge funds provided investors were treated fairly. In South Africa, side-pocketing was used, mainly with success, due to the failure of a lower-tier bank in which many income funds had invested.

In Jersey and Luxembourg, some side pockets were set up to isolate a portion of assets subject to liquidity and valuation issues, which were eventually worked out.

Other tools

During the liquidity crises that arose in 2008 and subsequently in 2013, and to help mutual funds meet their liquidity requirements, India decided:

(i) to consider, on a case by case basis, a possible extension in the borrowing limit of mutual fund schemes for a limited period of time, from the existing borrowing limit of 20% of the scheme's total net assets.

(ii) the central bank of India (RBI), in consultation with SEBI, provided a Special Re-Finance Window to Mutual Funds, allowing them to borrow from the central bank to meet short-term liquidity requirements.

With the easing of liquidity pressures and with the lessons it learned, India took a number of steps to enable mutual funds to better withstand liquidity stress in the future. This included adoption of the Principle of Fair Valuation which reduces the incentive for investors to redeem ahead of other investors, thereby reducing the redemption pressure on the scheme.

In order for mutual funds to meet their liquidity requirements while satisfying redemption requests, RBI and SEBI took the above measures (i) and (ii) to assist the Mutual Fund industry. These steps inspired confidence in the mutual fund industry and, due to the principles of fair valuation adopted by mutual funds, none of these funds utilised RBI's special liquidity window. Nor did a need arise for SEBI to extend the borrowing limit of any asset manager beyond 20%. Thus, thanks to the prudent measures taken in the past, especially with regards to the revised norms on the valuation of securities, the mutual fund industry was able to sail through the situation caused by substantial redemption pressure.

Conclusion

This report analyses the results of the C5 survey on liquidity management tools in various jurisdictions. The survey was sent to participants in April 2015 and asked various questions, from the type of available tools, to their use, outcomes, and on the parties who have the right to activate them.

Many common themes emerged from the responses. First, regardless of the liquidity management tool and its reason for being used, fund and asset managers generally disclose the "rules of the game" upfront for investors. Second, the funds generally have shown to be responsible in their liquidity management through the types of assets in which they invest. Consequently, much of the responsibility for invoking liquidity management tools begins with the funds. Third, asset managers generally have a fiduciary duty with respect to investors and have activated liquidity management tools when they are in the best interests of fund shareholders.

The range of tools available to fund/asset managers and regulators alike are vast. Tools range from liquidity management tools, such as suspension of redemption, redemption gates, side-pockets and swing pricing. Beyond optional liquidity management tools, many jurisdictions also regulate the liquidity provision ability of funds through the use of mandatory regulatory requirements, such as limits on asset concentration, counterparty concentration, the availability of short-term borrowing and limits on leverage. These tools are reinforced in many jurisdictions by the funds' internal risk management and quality control systems, which help ensure material risks are properly identified, assessed, monitored and controlled.

Although the use of such liquidity management tools is rare, there have been occasions in the past where activation is needed to ensure investors are protected. Although the impacts of such actions have been acutely felt by fund investors, the broader, system wide consequences of invoking such tools have been limited.