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A European perspective on managing liquidity risk in investment funds

Introduction

Recent shocks to financial markets have tested fund managers' readiness and ability to use Liquidity Management Tools (LMTs), prompting discussion of whether regulation developed since the Global Financial Crisis needs further reform.

Several debates are currently taking place. Some policymakers are considering whether it is necessary to regulate LMTs more prescriptively, or intervene in their use, to meet wider public policy objectives. At the international level, the International Organisation of Securities Commissions (IOSCO) is reviewing the practical application of its 2018 Recommendations. This review could prompt further legislative or regulatory interventions in individual jurisdictions. In parallel, the European Union is proposing to standardise use of and access to LMTs for Undertakings for Collective Investment in Transferable Securities (UCITS) and Alternative Investment Funds (AIFs) domiciled across the Union.

These debates rightly focus on whether tools are available and whether they are applied consistently, reflecting calls by industry for access to a comprehensive liquidity management toolkit in all jurisdictions' rulebooks. What consitutes scope of this varies depending on the fund structure in question – open-ended funds, exchange traded funds and money market funds all have unique features – and will differ depending on individual jurisdictions' characteristics and operational setup.

In *this Policy Spotlight*, we discuss why LMTs are used, the criteria and circumstances which lead managers to choose specific LMTs over others, and the constraints posed by specific fund structures, local regulation, operational issues, and market infrastructure. We suggest steps policymakers could take to strengthen liquidity risk management and LMT uptake – including by encouraging best practise guidelines and wider market initiatives. The core set of LMTs we cover is drawn from the standard toolkit envisioned in recent EU legislative proposals, however we also touch on some less commonly used tools and those unique to other jurisdictions.

The need for liquidity risk management

Liquidity risk is inherent in market-based investing and is faced by all types of market participant. It is generated by the possibility of insufficient market demand (or supply) for the other side of a trade at current prices, or in the timeframe of the investors selling (or buying) a security. Market participants may be able to transact in a security in the time they wish to, but may not receive a price acceptable to them, or close to previous prices, if liquidity is reduced. In some circumstances, liquidity may be so impaired that it is not possible to transact in the security at all.

For managers of open-ended funds (OEFs), the main concern with liquidity risk is the potential for existing investors to have their holdings 'diluted' by both explicit or implicit trading costs generated by subscription or redemption requests; or in challenging market conditions, difficulty in accurately valuing assets, and inability to trade in assets at all. **Strong liquidity risk management has therefore always been a critical part of managers' fiduciary duty.**

This has been bolstered over recent years, with requirements which include enhancing liquidity risk management and conducting ex-ante testing of funds' ability to meet redemption requests. For example, the SEC's Rule 22e-4 requires all OEFs to have a written liquidity risk management program, and requires funds to classify the liquidity of each of the investments in its portfolio. In the EU, ESMA Guidelines set out processes for stress testing assets and liabilities to determine overall portfolio liquidity, to inform manager's preparedness for redemption pressures and ensure sufficient fund liquidity. [1]

The role of regulation

The market turbulence of March 2020 and recent sanctions on Russian assets have prompted policymakers to look again at the effectiveness of fund liquidity risk management tools. In part, for some, this is motivated by a desire to mitigate the perceived impact of fund redemptions on markets. Some commentators have suggested that

All source information can be found in the Endnotes section. The opinions expressed are as of July 2022 and may change as subsequent conditions vary.

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the liquidity management toolkit could be strengthened by giving regulators power to direct the use of a broad range of LMTs. For example, the European Commission's initial proposed revisions to the AIFM and UCITS Directives outlined measures that would, in certain scenarios, give national regulators discretion to 'activate' LMTs on the grounds of "investor protection or financial stability risks". [2]

When assessing these proposals, it is important to recognise that **the processes and mechanisms grouped under the heading of 'liquidity management tools' vary significantly in how they work, the circumstances they should be used in, and the role regulation plays.**

Primary responsibility for activating LMTs in OEFs should remain with fund managers. Direct regulatory interventions targeted at funds on financial stability grounds will by definition only impact a subset of investors in a given asset class. It is therefore more likely that any such intervention will be ineffective or unfair (by disadvantaging fund investors versus versus direct or separate account investors), and could be harmful or counterproductive. A more effective route than direct activation is for regulators to encourage the use of LMTs by fund managers. Close engagement between supervisors and managers remains critical in stressed market conditions.

Investment funds are legal structures, and how they can be set up and managed on an ongoing basis is subject to detailed and varied regulation across jurisdictions. Regulators are involved in the authorisation and ongoing supervision of funds, require regular reporting on the fund's assets and liabilities and in many cases on large flows in and out of funds. They therefore have oversight of funds' structural features and LMTs at their disposal. Local regulation typically specifies which LMTs are available to managers, and – for certain tools – the circumstances in which they can be used.

In a small number of cases, existing regulation permits national regulators to direct fund managers to activate certain LMTs on investor protection grounds. For example, the UK Financial Conduct Authority specifies that UK OEFs investing in inherently illiquid assets, such as real estate, must suspend dealing if there is 'material uncertainty' about the value of any asset(s) representing 20% or more of the fund portfolio. UCITS funds in the EU can hold up to 10% of the fund's net asset value (NAV) in non-eligible securities, provided that these securities are still transferable. [3] In the US, open ended funds may hold up to 15% of NAV in illiquid assets, and in event of a breach must notify the fund board and explain how it will be rectified.[4]

Beyond these scenarios, **it is important that regulatory interventions have a clear and specific outcome in mind, and are alert to potential unintended consequences.** It is therefore important to recognise the size of OEF assets relative to other types of market participants. Assets managed externally by asset managers (of which OEFs are a subset) accounted for 27% of global financial assets at year-end 2019, with the remainder made up of other retail investors, institutional investors, and official sector investors holding assets directly.[5] **There is also significant diversity in funds' investor base and asset allocation**: while US-domiciled bond funds are primarily focused on US assets (approximately 90% have a pure US investment focus), equivalent European funds are highly varied in their geographic investment focus.[6]

Fund investment strategies also vary widely: some will invest in a single asset class, like equity or fixed income, or a subset or sector of the asset class. Others will take a blended or 'multi-asset' approach. As such, **asset managers and fund boards will typically have the most detailed and up-to-date information and experience of their funds, market conditions, and investor behaviour.** Decisions to activate LMTs are often highly time-sensitive and dependent on evolving market conditions. In all but the most exceptional circumstances, asset managers are best placed to decide how and when to deploy LMTs.

As such, **Policies targeted solely at OEFs will therefore not have the intended market-wide impact.**

For example, policymakers could observe pressure in a section of the fixed income markets, and decide to suspend funds focused on that market in order to stem OEF redemptions to dampen market moves. Available evidence suggests that mutual funds represent a minority of holdings in sub-sectors of the fixed income markets.[7] Suspending a group of funds will therefore prevent only a subset of investors in the given asset class from selling, making it ineffective and unfair. It could also signal to other investors holding related assets (through other vehicles or on their own balance sheet) that there is a problem in the market, prompting them to exit – potentially exacerbating the original problem.

Similarly, intervening in swing price factors with a view to managing fund flows or market dynamics risks unfairly distorting the cost of trading for fund investors versus other market participants. It would also be contrary to existing fund regulation designed to protect investors against undue costs, and could potentially require investor compensation if errors are made.[8]

Observations and recommendations

We welcome initiatives, such as the EU's, to increase availability and uptake of LMTs.[9]

Once in place, **regulators can improve LMT uptake by monitoring asset managers' operational preparedness to use LMTs, and by promoting standards and best practises that engender high quality application**. As recent events have shown, regulators can also play an important role during market stress by issuing supervisory guidance on use of LMTs, informed by close engagement with industry.

We see potential for enhancements to the existing liquidity risk management toolkit in several areas, including:

- **Swing pricing**: where available, swing pricing for open-ended funds could be enhanced with standards and best practises that cover the principles and operations underpinning swing factors (encouraging inclusion of market impact), model management, operations, governance, and escalation procedures. Improving access to data pertinent to setting swing factors, for example through a consolidated tape of pre- and post-trade data, will allow further improvement and calibration of swing pricing models.
- **Gates**: policymakers could consider allowing application at the share class level, for example to specific institutional share classes, or even specific investors with large holding redemption requests, rather than only across a sub-fund.
- **Asset splits (side pockets):** recent events have shown that extending permission to split restricted or impaired assets for retail funds can be beneficial for end-investors. We recommend permitting a range of approaches to segmentation including the creation of new funds or new share classes, focused on end-investor outcomes and supported by regulatory guidance on different scenarios, while avoiding prescriptive rules on use.
- **Notice periods**: Extended notice periods are appropriate for funds investing in inherently illiquid assets with regular liquidity windows, such as real estate or specialised alternative strategies. We do not believe extended notice periods should be required for open-ended funds invested in public securities that trade on an intraday basis.

LMTs vary in their use case depending on the type of investors in a fund, investment strategy, local regulation, and market conditions. Some are binary (they are either 'on' or 'off'), some have a magnitude (they can be applied in different degrees), and some are structural (they are built into the operation of a fund). **The decisions as to how to build in ex-ante liquidity management tools, or to activate business-as-usual or ex-post LMTs – see Exhibit A below – should lie with the fund's governance body. Close engagement between supervisors and managers is critical in stressed market conditions.**

LMTs are ongoing portfolio management tools designed to protect investors from dilution and other risks. **As such, they are effective redemption management tools that remove any first mover advantage arising specifically from the OEF structure.** LMTs should not be used beyond this to compromise fund investors' ability to be a first mover in markets. Policymakers should seek a comparatively level playing field to exist irrespective of investment vehicle; i.e. across direct investments, investments via separate accounts, and investment funds.

Primary responsibility for activating LMTs in OEFs should remain with fund managers. Interventions targeted solely at OEFs on financial stability grounds will by definition only impact a subset of investors in a given asset class, and therefore risk being ineffective or unfair (versus direct or separate account investors). **Direct activation by regulators for financial stability purposes is unlikely to have the intended outcome, and could be harmful or counter-productive.**

Contributions of asset managers and regulators to liquidity risk management

Asset Managers	Regulators
• Incorporate ex-ante liquidity risk management in the fund structuring and portfolio design phase • Conduct business-as-usual portfolio and risk management, including liquidity stress testing • Monitor a fund's investor base, portfolio composition, redemption and subscription activity, and market conditions for securities held as part of ongoing risk management and stress testing requirements • Activate LMTs ex-post in accordance with their fiduciary duty and investors' best interests	• Make detailed assessments of liquidity management processes and funds' structural features during fund authorisation and via regular reviews • Ensure the full liquidity risk management toolkit is available in local rulebooks • Ensure asset managers are operationally prepared to use LMTs • Assist the market through standards, best practises, and guidance that promotes high quality application of tools • Encourage activation of LMTs by fund managers where investor protection is at risk, and/or in stressed markets

How managers use Liquidity Management Tools

Liquidity risk management begins with fund design and portfolio construction and continues through day-to-day portfolio and risk management process. This type of 'ex-ante' liquidity risk management should mitigate the need for deployment of most 'ex-post' LMTs. However **ex-post tools should not be viewed solely as crisis management measures: many are business-as-usual mechanisms used as part of prudent fund management.**

LMTs are ongoing portfolio management tools designed to protect investors from dilution and other risks. As such, they are effective redemption management tools that remove any first mover advantage arising from the OEF structure. LMTs should not be used beyond this to compromise fund investors' ability to be a first mover in markets alongside other types of investor. LMTs vary in their use case depending on the type of investors in a fund, investment strategy, and market conditions that would warrant their use. Similarly, some tools are binary (they are either 'on' or 'off'), some have a magnitude (they can be applied in different degrees), and some are structural (they are built into the operation of a fund).

LMTs are therefore used in all aspects of a fund's 'life cycle' (see Exhibit A): they are embedded in the initial product design and used as part of ongoing portfolio management, but they are also used to manage extraordinary market conditions and protect investors in the run-up to fund closure.[10]

Notice periods are embedded in OEF structures during the design phase (ex-ante), specifying a minimum time period between investors making subscription or redemption requests and the point at which assets are traded to meet the requests. Notice periods are typically used for funds investing in inherently illiquid assets, such as real estate and other private markets. Assets that are not regularly or publicly traded require planning and preparation before transactions can be made. Funds investing in assets which are inherently illiquid should always integrate notice periods that are appropriate to the underlying market.

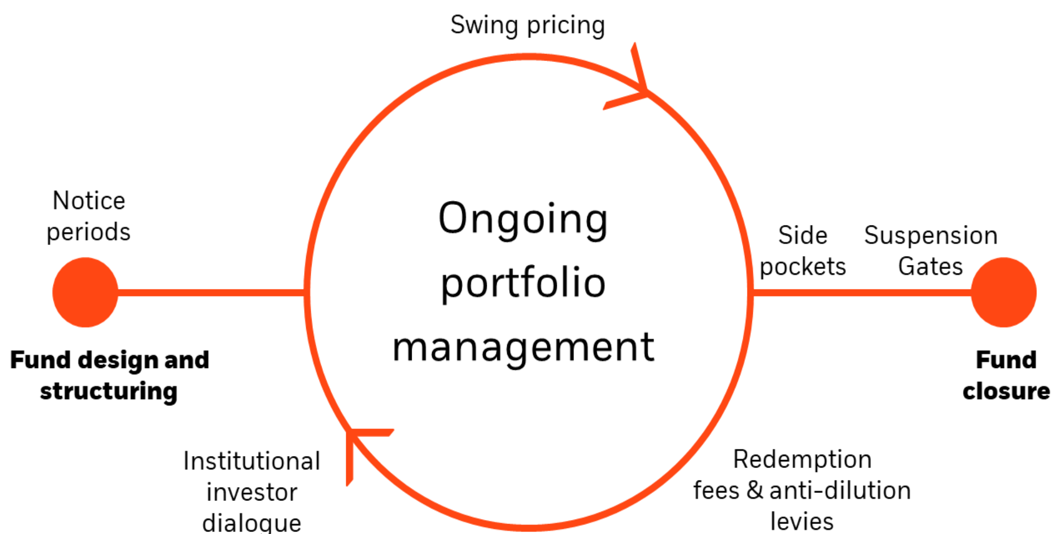
Regulators oversee notice periods through fund authorisations and through rulebooks specifying minimum periods for OEFs focused on certain asset classes, typically private markets. In the UK, for example, the FCA requires property funds to build in notice periods of between 90 to 180 days; while the newly-introduced Long-term Assets Fund (LTAF), built to facilitate long-term illiquid investments, has a 90 minimum day notice period alongside a maximum quarterly redemption frequency.[11]

Extended notice periods are appropriate for inherently illiquid assets or specialised strategies with regular liquidity windows – such as hedge funds. **We do not believe extended notice periods should be required for funds invested in public securities that trade on an intraday basis**. While the liquidity of some public securities can vary, this risk is best managed through ex-ante portfolio construction, and mechanisms like swing pricing to reflect changing liquidity costs. Extending notice periods for funds invested in public securities would disadvantage their fund

Exhibit A: Liquidity management in the life cycle of a fund

In stressed markets, regulators can play a critical role by issuing supervisory guidance on use of LMTs, informed by close engagement with industry on idiosyncratic or fund-specific issues.

More generally, however, regulators can improve LMT uptake by monitoring asset managers' operational preparedness to use LMTs, engaging in dialogue with managers on their use, and setting standards and best practises that promote high quality application.



investors vis-à-vis investors holding assets on their own account or through other investment vehicles. Institutional investors would likely migrate assets out of funds and into other structures, disadvantaging retail investors without that option.

Swing pricing adjusts the share price of a fund subscribing or redeeming investors pay or receive based on the level and direction of flows, and current market conditions. The price adjustment externalises estimated transaction costs (both explicit and implicit) generated by trading activity. Swing pricing is most suited to funds invested in publicly listed or traded assets, where liquidity and transaction costs can be variable.

However, swing pricing is not suited to all asset classes or fund structures: exchange-traded funds, for example, have shares traded on secondary markets and can trade at a premium or a discount to the funds' NAV; while money market funds, which typically meet redemptions through cash balances, price and deal on an intraday basis, making other tools such as redemption fees more suitable.

In our *Policy Spotlight: Swing pricing – Raising the bar*, we outline how swing pricing is used to protect investors and mitigate 'first-mover advantage' incentives that might arise in open-ended fund structures. Compared to other anti-dilution measures (discussed below), swing pricing is operationally more straightforward for investors and fund managers, as anti-dilution adjustments are included in the fund NAV, rather than as a separate charge.

Take-up of swing pricing is rising. It is in place in Hong Kong, Singapore, India, and to a limited extent in Japan; the UK and 14 EU Member States permit it; and in the US it is available but not operationalised. **We believe the primary focus of regulation should now be to improve the availability and take-up of swing pricing, or alternative mechanisms** that reflect operational complexities of local market infrastructure.

Take-up aside, policymakers and market participants are currently debating how to improve the application of swing pricing, to ensure the full cost of transactions and market conditions are reflected in fund pricing. We believe this is best done by setting standards and best practises that cover the principles and operations underpinning swing factors, model management, operations, governance, and escalation procedures.

To be fully effective, swing factors should always take into account the market impact of trades, but recent surveys indicate that while
take-up is increasing, nearly two-thirds of managers do not include this in their swing factor calculation. Improving take-up, operationalisation, and standards of swing pricing should be considered a critical first step as policymakers look to enhance application by managers.

Swing pricing can also be enhanced by improving access to data pertinent to deciding a swing factor. This would address the suggestion made by some commentators that swing factors ought to be higher during periods of market stress, and poses less risks to markets and investors than a prescriptive regulatory approach that attempted to set swing factors in order to manage fund flows or market dynamics. Mandated 'over-swinging' imposes a cost on OEF investors that is not borne by other types of investor.

A note on Dual Pricing

Dual pricing is another anti-dilution mechanism, which has tended to be used in jurisdictions where listed securities are themselves dual priced.[12] Assets held by the fund are priced at mid-point, and the NAV priced accordingly. Any incoming subscription and redemption orders are netted off against each other – with any imbalance reflected in adjustments to fund NAV. Transaction costs are added to the NAV for a subscription price where there are net inflows, or subtracted from the NAV for redemptions where there are net outflows.

Money Market Fund redemption fees

Constant or low-variation pricing and intraday dealing is a structural feature of many money market funds, making NAV adjustments via swing pricing unsuitable and impractical.

MMFs are structured to fund redemptions using cash on hand, rather than by selling securities before they mature. This is recognised in the Daily Liquid Assets (DLA) and /or Weekly Liquid Assets (WLA) minimums set out in regulation around the world, which aim to ensure MMF portfolios have large amounts of cash on hand and are able to organically replenish these levels throughout a weekly period. Swing pricing, which is designed to reflect secondary market dealing costs, is therefore ill-suited to MMFs.

In extreme circumstances requiring MMFs to sell assets to meet redemptions, redemption fees are better suited as a tool to externalise security transaction costs onto redeeming investors. Redemption fees could also be used for other fund structures or asset classes which have structurally higher transaction costs: for example, funds investing in real estate can expect to incur a minimum level of transaction costs when liquidating assets regardless of market conditions, and many therefore build redemption fees into fund guidelines.[13]

Case Study

Swing pricing during March 2020

The frequency of the use of swing pricing increased markedly during March 2020, as did the size of swing factors to allocate the full costs of market liquidity to redeeming investors. In April 2020, overall flows reversed, leading in some cases to higher swing factors being applied to subscribing investors.

Exhibits B and C show the use of swing pricing for a BlackRock-managed global high yield bond strategy domiciled in Europe. Exhibit B shows a spike in March of the number of times swing pricing was used, and Exhibit C shows that the size of the swing factors also increased significantly in March. These trends were particularly pronounced in certain fixed income funds as the decrease in market depth translated into larger transaction costs, especially for larger trades. However, Exhibits B and C also show that swing pricing is a business-as-usual tool in all market conditions, not just stress events.

The operational, governance and regulatory processes around swing pricing were well established and tested prior to the crisis in many major European fund domiciles. In practice, fund governance committees had to frequently assess daily applicable thresholds and adjust swing factors quickly to reflect the rapid changes in underlying markets in March and April. Some jurisdictions leave maximum swing factors to the discretion of fund managers, whereas some regulators require explicit permission to increase factors beyond the maxima stated in the prospectus.

During COVID-19, some fund managers, including BlackRock, sought this permission from the Luxembourg regulator, the Commission de Surveillance du Secteur Financier (CSSF). The CSSF in its COVID-19 FAQ allowed swing factors to be increased on a temporary basis, subject to appropriate investor notification, and allowed managers to include swing pricing provisions where they had not previously been operationalized. Other regulators, such as France's Autorité des Marchés Financiers (AMF), provided similar guidance to managers of French funds.

Exhibit C: Swing factors applied for BlackRock Global High Yield Bond strategy (bp)

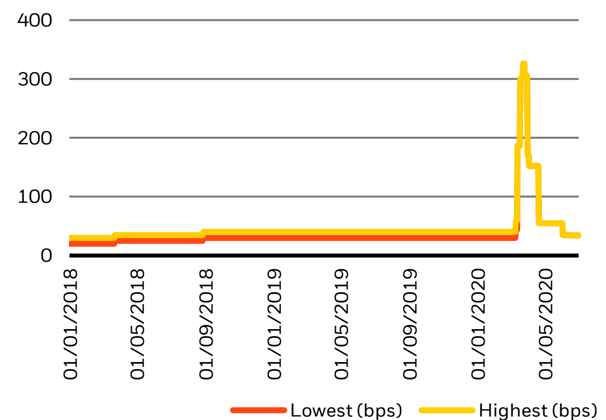
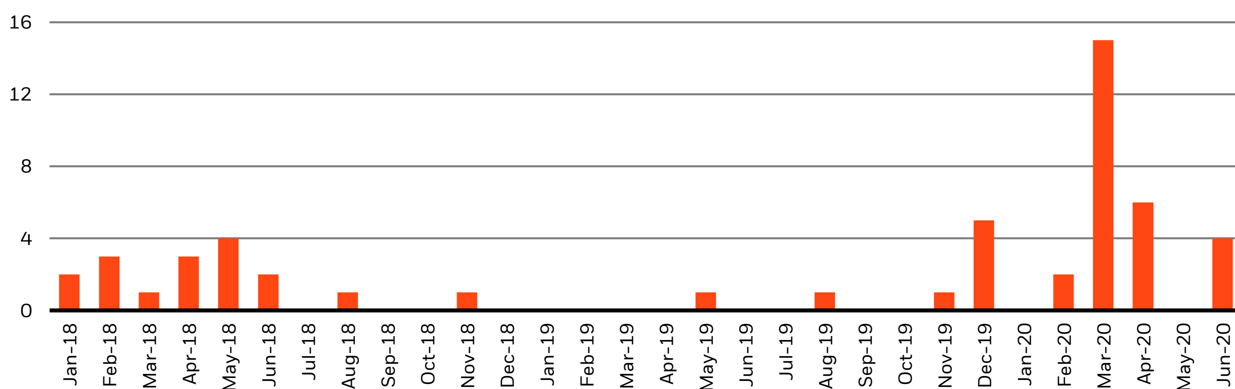


Exhibit B: Frequency of swing pricing use for BlackRock Global High Yield Bond strategy
(number of times swing pricing used per month)



Source: BlackRock, Lessons from COVID-19: Liquidity Risk Management is Central to Open-Ended Funds, November 2020. Data shown in Exhibits B and C represent the "umbrella funds" containing a number of sub-funds with varying investor bases. Different sub-funds may therefore have applied different swing factors within the range shown at any one time, hence "lowest" and "highest" swing factors for the fund range are shown in the charts.

Redemption fees were introduced for US 40 Act funds to reduce opportunistic arbitrage of fund assets following concerns about 'market timing'.[14] Transactions in or out of a fund by a given client 'starts the clock' on a period of time in which trades in the fund or other relevant funds are monitored. Any further activity identified would be charged a redemption fee, calculated as a percentage of the transaction size. A redemption fee is intended to allow US 40 Act funds to recoup some of the direct and indirect costs incurred as a result of short-term trading strategies, and is also intended to discourage such speculative behaviour.

Over time, many Regulated Investment Company (RIC) fund managers have discontinued the use of redemption fees, using other methods to track this type of behaviour and making direct communications to warn against speculative activity.

Redemptions-in-kind allow investors to receive the underlying assets on redeeming from the fund, instead of their cash value. Transfer of assets in this manner can be subject to regulatory notification, and valuation from an independent third party – such as the fund auditor, depositary, or trustee.

Redemptions in kind avoid the asset liquidation process but are not suited to many investors. Typically, only large institutional investors with their own dedicated custody accounts would use redemptions-in-kind, which will only be made if the investor in question it is willing to accept it. This is more likely to be the case if the investor has a similar portfolio on their own account to the one held in the fund.

Moreover, in some jurisdictions, in-kind settlement of a representative slice of the portfolio can be limited by local rules preventing transference of ownership for certain assets, or that do not allow for re-registration of fund holdings**.** As such, **redemptions in kind for OEFs should not be viewed as a widely usable substitute for the normal redemption process or as a means of easing pressure on markets liquidity**.

Gates and deferrals are flow-management tools that temporarily reduce or delay requested redemptions. 'Gating' aims to mitigate the risk of a large flow generating security trades in excess of market capacity or in excess of what could be managed with mechanisms like swing pricing, thereby protecting existing investors from dilution while maintaining a commitment to meet requests within a pre-specified timeframe. Redemptions above a certain threshold are limited, and deferred to future dealing days.

Gates are typically used in funds with a concentrated investor base, where a redemption of significant size could generate a trade that cannot be executed without an adverse market impact on other fund investors. Typically, this type of investor will hold a different class of fund shares (an institutional share class) to other investors. However, under existing regulation a gate must be applied across all investors in all share classes, to uphold the principle of equal treatment of investors. **To enhance the effectiveness of gates, policymakers could explore the possibility of refining the tool to allow application to specific share classes** (e.g those limited to institutional investors), **or even specific investors.**

Gates are less suited to funds with retail client bases or those distributed through intermediaries and platforms. The distribution architecture for these funds is increasingly automated and would not lend itself to ad-hoc interventions to gate a fund. For these types of funds swing pricing is a more appropriate way to manage dilution risk.

Redemptions in kind: OEFs vs ETFs

Some commentators have suggested greater take-up of ETF-like mechanisms, such as redemptions in kind, by OEFs, to improve OEF resilience.[15] While wider use of redemptions-in-kind may appear attractive from a financial stability perspective, it is not operationally feasible for most investors, particularly retail investors.

Trading in Exchange Traded Funds (ETFs) is supported by Authorised Participants (APs). ETFs trade in two markets: primary and secondary. General ETF investors (that are not APs) do not interact directly with the ETF when buying or selling shares. Instead, they trade through brokers with other investors on an exchange or other venues. APs, typically financial institutions such as banks, are authorised to transact with the ETF to create or redeem shares, in exchange for a proportionate share of the underlying assets that make up the benchmark tracked by the ETF. It is important to emphasise two characteristics of APs: they are specialised financial institutions, and individual APs are affiliated with specific ETFs and portfolio of assets they track. APs are therefore operationally prepared to receive redemptions in kind in exchange for ETF shares.

By contrast, few institutional investors in OEFs have the capability to receive redemptions in kind – limiting their practicality as an LMT to only a rare number of scenarios.

For MMFs, the use of gates would typically indicate that the fund is likely to be wound down, as its primary purpose is to preserve capital and liquidity. Regulators have proposed that for certain types of MMFs once liquidity falls below a certain level, this should trigger these funds to consider whether to impose gates, suspend redemptions and/or impose liquidity fees on redeeming investors, without providing clear grading or escalation processes. While there may be scope for a manager to apply gates or fees on an MMF in extremis, this should be left at the manager's discretion, with the guidance of a clear regulatory framework.

In other circumstances, redemptions may be deferred completely if market conditions or operational issues make it impractical or unwise to fulfil them. Relevant scenarios include market closures or suspensions, timing issues, or even difficulties in the wider settlement ecosystem: problems in the banking or clearing system, for example, may mean that fund assets can be transacted, but cash cannot be received and delivered to the client inside the usual timeframe.

Case Study

BlackRock EMEA-domiciled equity fund

Trigger: A redemption order of over 10% of fund NAV was received from an institutional client in APAC on a Friday at the end of their business day. The difference in time zones between the Europe-based portfolio manager and the client meant that contact could not be made with APAC-based colleagues.

Decision: The fund manager exercised power provided for in the fund prospectus to defer redemptions, fulfilling 10% of the redemption on the day and deferring the remainder until the next business day.

Outcome: The investor was able to receive the remainder of their redemption by the time markets opened on the next business day, at the NAV on that day.

Suspension of fund NAV calculation temporarily prevents investors from subscribing to or redeeming from a fund. Suspension is typically a last-resort tool and can be deployed in the rare event of unmanageable redemption pressure, or – more commonly – where there is material valuation uncertainty or inability to trade in a portion of the fund's assets. Inability to value assets will not always be a result of market stress: funds can and do suspend in light of trading venue outages, where a fund may be merging with another, or even when primary trading markets close for public holidays.

Suspensions are typically temporary measures to manage short-term issues, but can be used in combination with other LMTs, for example giving time to organise asset splits, or to manage longer-term dislocations in markets. Suspension can also be a pre-cursor to fund closure, allowing time for options to be explored before establishing that a fund is no longer viable.

In all cases, suspension is used to protect existing investors where continuing to deal could negatively impact them. The fact that a fund may suspend, and the circumstances in which it might happen, is clearly disclosed to investors in fund documentation.

Managers are permitted to suspend funds in the majority of jurisdictions. Some local rulebooks require suspension in certain circumstances or market conditions. In other jurisdictions, regulators also have the discretion to direct or recommend suspension of a fund. In Ireland, for example, the CBI can mandate suspension in the "interests of the unit-holders or the public" under UCITS rules;[16] while in Denmark, if fund administrators are unable to obtain intra-day valuations for mutual funds (a feature idiosyncratic to the Danish market), regulatory expectation is that they suspend dealing until they can do so, as was the case in March 2020.[17]

Any future changes to regulation of fund suspension should maintain this flexibility and avoid narrowly specifying which scenarios are acceptable, to avoid funds finding themselves unable to protect investors.

Refusal of subscription

While gates are used to manage outflows, subscriptions of excessive size could also negatively impact existing investors in a fund. Managers reserve the right to refuse subscriptions, typically from a single investor, and could do so if, for example, they suspect that their requested subscription is an attempt at arbitraging the fund or could exceed tradable capacity in the underlying market.

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Soft closures, temporary closures, and non-dealing days

There are a number of other options available to fund managers that resemble suspensions, with important differences.

For example, '**soft closure**' of a fund is typically used if there are capacity constraints of either the market a fund is investing in (i.e. no more of the securities could reasonably be bought), or of the fund manager themselves (i.e. they do not have adequate resource to manage more fund assets, or they meet threshold limits). A soft closure can take the form of ceasing active marketing of a fund, through to limiting large or one-off subscriptions, and in some cases preventing subscriptions entirely. This ensures investor interests continue to be preserved where capacity issues might otherwise impact the managers' ability to implement its investment strategy, find suitable investments or efficiently manage existing investments.

In other circumstances, market disruptions or other external factors can warrant the use of either **temporary closures** or declaration of **non-dealing days**. Unexpected market closures could be due to unexpected disruptions – including catastrophes such as extreme weather – but could also be due to historically low dealing volumes during national holidays in a local market in which a fund is invested – e.g. Golden Week celebrations. In these cases a manager can temporarily shut off primary market dealing in a fund until normal market activity in the underlying assets resumes.

Asset splits (side pockets) create a separate account – either a new share class or separate sub-fund – to hold assets that have been impaired or are not trading normally. Sanctioned assets are a recent notable example, but asset splits could equally be used for convertible assets – such as bonds convertible into loans. In each of these cases impacted assets still retain some value but cannot be traded to meet routine redemptions. Holding the assets in a separate account structure allows the fund to continue dealing in the remainder of the portfolio, protecting investors from free-riding behaviour, speculative activity or dilution while the impaired assets are managed or wound down in an orderly manner. Fund boards and managers can decide to implement asset splits – if permitted in local fund regulation – based on their opinion on how orderly trading in affected assets would be. Managers may use suspension in combination with asset splits, to allow time for the relevant arrangements to be made.

Asset splits are ultimately used to protect long-term fund investors from unwarranted losses, speculation, or dilution. **Different scenarios will warrant different approaches to which assets are segmented and how it is operationalized** . The case study outlined overleaf shows the importance of making asset splits widely available, and providing managers sufficient flexibility – in consultation with local regulators – to structure them in a way that best serves end-investors.[18]

Other options such as institutional investor flow management and fund closures are alternative approaches to managing fund liquidity and redemptions outside of the typical toolkit. **Institutional investor flow management** is, effectively, using the manager-client relationship with institutional investors to discuss a requested deal in further depth before executing. For example, managers can advise institutional clients that placing a single large deal in adverse market conditions is likely to be more costly than smaller trades spread out over a longer period of time, and work with them to execute a trading strategy. **Fund closure** is not typically considered a liquidity management tool, but can be used where disorderly trading conditions are likely to persist, and an orderly wind-down process (that is not time-limited) is the best option from a fiduciary perspective.

Case Study

Sanctioned securities

Trigger: Following Russia's invasion of Ukraine, multiple governments imposed sanctions on trading in Russian (and Belarusian) assets. Shortly after, the Moscow Stock Exchange suspended trading and the Central Bank of Russia imposed capital controls, preventing foreign investors from exchanging out of the Rouble. Some related securities such as Depository Receipts, while not directly sanctioned, were also ultimately suspended by listing exchanges, and non-sanctioned assets related to Russia experienced uncertainties in settlement and clearing.

Decision: Fund managers identified several funds with notable exposures to impacted securities. Managers initially responded by suspending dealing in these funds. As it became clear that sanctions would be imposed for the long term, managers collaborated with regulators to identify solutions that would allow dealing in non-impacted assets to continue. Asset splits have typically only been permitted for institutional funds, while many of the impacted funds were distributed to retail investors – policymakers across several jurisdictions worked with industry to identify asset splitting options that would best protect investors, and provided necessary regulatory relief.

Many of the funds holding sanctioned securities also had exposures to securities in several other emerging markets. To avoid operational complexity, delay, and cost to clients of setting up new custody accounts in multiple jurisdictions, the most efficient option for many funds was to set up a new share class within the fund specifically to wind down impacted securities, rather than setting up new sub-funds. However, this may not have been the best option for all funds, and recent regulatory developments have rightly allowed for a range of implementation approaches. Recent guidance from a number of regulators has set out in detail the various investor protection, valuation, operational and tax considerations managers will need to take into account when structuring the type of asset split which will best protect the interests of investors.[19]

Outcome: While some fund managers ultimately decided to close funds with exposures (typically where sanctioned securities accounted for a majority of fund assets, and it was not viable to continue managing the remaining exposure), implementation of asset splits should allow end-investors continued liquidity in non-sanctioned assets, while protecting them from speculative trading into the fund. It should also preserve the possibility of future returns if and when trading resumes in impacted assets.

Conclusion

The LMTs discussed in this Spotlight vary widely in their use cases, circumstances for deployment, whether they are a structural feature of a fund or they are 'activated' by the manager. **The decision to use an LMT and how to do so is informed by the assets a fund is invested in, market conditions for those assets, the fund's investor base, the activity of those investors, and numerous other factors. These decisions are often highly time-sensitive and dependent on evolving market conditions**.

This means **there is no one-size-fits-all approach to deploying LMTs, and how to use them is a judgement that should sit primarily with asset managers and fund governance bodies,** who have the best knowledge and information on developments within a fund, and are therefore best informed about how and when to deploy LMTs.

While some market events and conditions may affect groups of funds at the same time, **variation in investment objectives, portfolio composition, and investor bases make it unlikely there will be a foreseeable 'right time' to use particular LMTs across some or all funds in a market**, **or a scenario in which one tool would be appropriate for multiple funds.**

In stressed markets, regulators can play a critical role by issuing supervisory guidance on use of LMTs, informed by close engagement with industry on idiosyncratic or fund-specific issues. More generally, however, **regulators can improve LMT uptake by monitoring asset managers' operational preparedness to use tools, engaging in dialogue with managers on their use, and setting standards and best practises** that promote high quality application.

Endnotes

1. See BlackRock (November 2020) *Lessons from COVID-19: Liquidity Risk Management is Central to Open-Ended Funds*, and AMIC/EFAMA (January 2020), *Managing fund liquidity risk in Europe*.
2. European Commission Proposal for a directive of the European Parliament and of the council amending Directives 2011/61/EY and 2009/65/EC, November 2021
3. Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS), Art 50 (2)(a)
4. Securities and Exchange Commission, Revision to Rule 22e-4, 17 CFR Part 274.
5. Source: McKinsey Performance Lens: Global Growth Cube.
6. See BlackRock, *Lessons from COVID-19: Liquidity Risk Management is Central to Open-Ended Funds*, November 2020
7. See BlackRock, *Lessons from COVID-19: Overview of Financial Stability and Non-Bank Financial Institutions*, September 202
8. For further discussion, see BlackRock (November 2020), *Lessons from COVID-19: Liquidity Risk Management is Central to Open-ended Funds*
9. See BlackRock, *Spotlight: Swing Pricing – Raising the Bar*, September 2021.
10. Other jurisdictions offer other tools, not referenced here. For example, funds in the US can make use of inter-fund lending or bank lines of credit to manage short-term settlement issues.
11. See Financial Conduct Authority FS21/8: Feedback to consultation paper on liquidity mismatch in authorised open-ended property funds (May 2021); and PS21/14: A new authorised fund regime for investing in long term assets, (October 2021)
12. See AMIC/EFAMA (2016), *Managing fund liquidity risk in Europe*.
13. For further discussion, see BlackRock's response to the *SEC Proposed Rule on Money Market Fund Reforms (File No. S7-22-21)*, April 2022, and BlackRock's response to FSB's Consultation report on Policy Proposals to Enhance Money Market Fund Resilience, August 2021.
14. The market timing scandal in 2003 resulted from the discovery of illegal late trading and market timing practices on the part of certain hedge fund and mutual fund companies.
15. BIS Quarterly Review – Open-ended bond funds: systemic risks and policy implications, December 2021
16. European Communities (Undertakings for Collective Investment in Transferable Securities) Regulations 2011, 104(2)(b).
17. For further discussion, see BlackRock's response to the FCA's consultation paper on *Protecting investors in authorised funds following the Russian invasion of Ukraine*.
18. For further discussion, see BlackRock (November 2020), *Lessons from COVID-19: Liquidity Risk Management is Central to Open-ended Funds*
19. For example, see CSSF (March 2022), *Ukraine Crisis: FAQs on the application of LMTs by investment funds;* FCA (April 2022), *CP22/8: Protecting investors in authorised funds following the Russian invasion of Ukraine;* ESMA (May 2022), *Actions to manage the impact of the Russian invasion of Ukraine on investment fund portfolios*

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