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How investors should deal with the liquidity dilemma

Document for the exclusive attention of professional clients, investment services providers and any other professional of the financial industry.

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CIO Insights

The paradox of liquidity (it dries up when most needed) remains one of the key challenges for investors on the aftermath of the great financial crisis and it is resurfacing in this late financial cycle phase.

Assuming that different asset classes should remain liquid at any time can fuel a false sense of security and result in a lack of preparation for future possible tensions. This issue is in part due to the fact that liquidity has been poorly defined, with confusion between macro (the systemic liquidity provided by central banks) and micro (market liquidity at asset class levels) liquidity.

On the central bank (CB) side, concerns regarding global liquidity may be overdue, as CB are now turning more dovish. The speed and path of quantitative tightening now look more uncertain and central banks are likely to be extremely cautious to avoid excessive tightening of liquidity and financial conditions, which could disrupt markets and accelerate potential for recession.

Even if risks of excessive tightening in macro liquidity recede, assessment of micro (market) liquidity continues to be paramount. Micro liquidity depends on supply/demand dynamics, but it also ultimately is a proxy for risk-on or risk-off sentiment and/or trust in markets being able to secure trading. Last year's revamp in volatility revealed areas of the markets where liquidity has deteriorated (namely, in corporate and emerging market bonds).

The further we advance in the cycle, the more financial markets start to discount the risk of a recession and market sentiment becomes more fragile, with possible episodes of risk-on/risk-off reversal, especially as geopolitical uncertainty remains high. Liquidity tensions will arguably intensify future corrections when the cycle turns into recession.

In this environment, investors should be ready to grasp opportunities that offer good rewards for bearing liquidity risk, but also reinforce liquidity risk management to avoid a liquidity trap that could force them to sell valuable assets in times of market stress.

In our view, big asset managers with solid liquidity management in place and global trading organisation that can ensure the best mix of connectivity to liquidity venues and relationships with counterparties will be best positioned to serve their clients when liquidity will be most necessary.

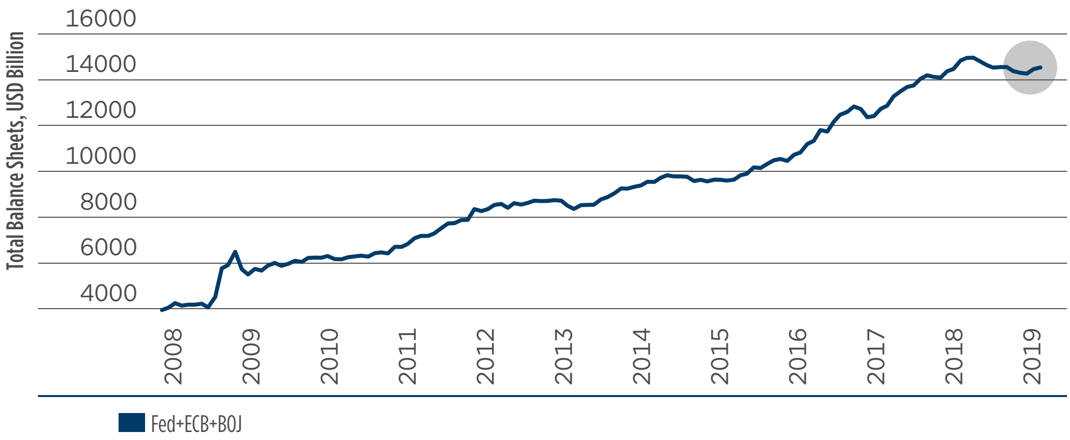
Pascal Blanqué   Vincent Mortier

1. Central bank liquidity: a turning point?

"The exceptional phase of macro liquidity injection started to revert in 2018".

Central bank liquidity, intended as money supply provision by CBs, in the economic and financial system significantly expanded after the Great Financial Crisis (GFC) driven by Quantitative Easing (QE) programmes and aggressive interest rate cuts. Yet, after 10 years of money printing, 2018 marked a change. The aggregate level of G4 CB balance sheets in US dollars reached a peak at the end of 1Q18 and started to decline until November. The Federal Reserve shrank its balance sheet by over 9% of total assets since the start of the unwinding of QE (October 2017) and raised rates four times in 2018, draining US dollar liquidity out of the system at a time when the ECB was moving towards the end of its asset purchasing programme (December 2018).
The shift towards a regime of lower liquidity has impacted financial markets, which have experienced higher Treasury yields/higher volatility and seen a stronger US dollar. Hence, investors have started to question what this trend reversal – from quantitative easing to quantitative tightening (QT) – could mean for reflated assets.

Figure 1: Major DM central banks' liquidity expansions is starting to reverse

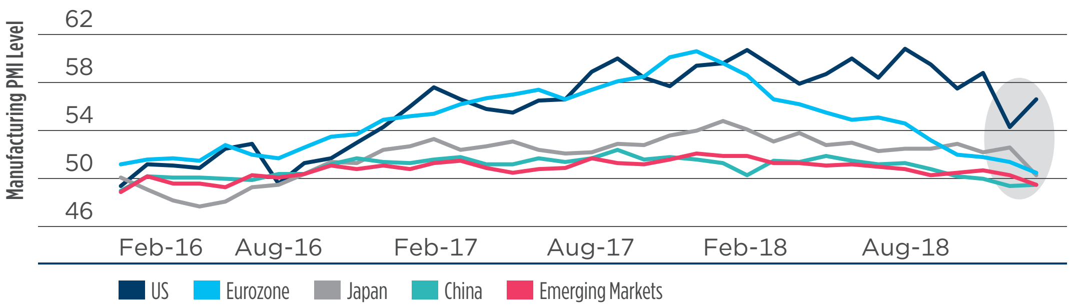


Source: Amundi analysis on Bloomberg data, as of 20 February 2019.

"In 2019, global macro liquidity might deteriorate only marginally, as major central banks are now turning more cautious amid a global slowdown in economic momentum".

Yet, with markets recently becoming more nervous and cautious in assessing the slowdown in the global economy amid the synchronised negative momentum in leading indicators (see the global manufacturing PMI slowdown in Figure 2), the tones of CBs have become more dovish (see Box 1: Fed and ECB more dovish tone). While this slowdown may appear to be negative from an economic standpoint, it might translate into a positive news in terms of macro liquidity and financial market conditions. The Fed and the ECB are mindful that declining macro liquidity would also impact credit conditions and economic growth.

Figure 2: Slowdown in global manufacturing PMI indicators on CBs' radars



Source: Amundi analysis on Bloomberg data, as of 20 February 2019.

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Box 1: Fed and ECB more dovish tone

Powell moves more dependent on data and financial conditions

January 2019: Fed set a quite dovish tone:

- Powell underlined that the Fed will be "patient" and "flexible" on rates
- Powell said the normalisation process will be completed "sooner and with a larger balance sheet" than previously expected
- "...Committee will be patient as it determines what future adjustments to the target range for the federal funds rate may be appropriate..."

In a nutshell, the Fed has become more dependent on data (and financial conditions) with regard to both rate setting and balance sheet normalisation in order to reduce the risk for potential policy mistake.

Draghi opened the door to a new long-term refinancing operation

Recent wording opens the way for possible renewal of long-term refinancing:

- December 2018 meeting: Draghi stated, "Of course the Governing Council is aware of the different factors that will affect liquidity and excess liquidity over the coming two, three years. At some point in time, our committees will start to work on that and we will have a discussion of this and a decision on this".
- January 2019 meeting: Draghi stated, "New long-term loans to banks discussed but not decided...ECB still has [a] full toolbox of monetary instruments".

In a nutshell, approaching the expiration of TLTRO (between June 2020 and March 2021), the market is starting to expect that the ECB will offer some long-term loans, but will allow the balance sheet to shrink.

"A stabilisation in US dollar dynamics would be supportive for markets in an era of a still-high global debt burden".

Hence, a data-dependent approach, leading to a pause in the Fed tightening cycle and possibly a slower pace in balance sheet reduction (engineered by a likely renewal of long-term refinancing by the ECB and/or a revision in the Fed balance sheet runoff path) could be beneficial for global liquidity conditions. Easing monetary policy in China to counterbalance the economic slowdown and the damage related to the imposition of tariffs could also be a positive for global liquidity and financial conditions. All these moves are key, as they would provide the time needed for the economy and markets to digest the tightening in financial conditions experienced last year and evident also in the US dollar appreciation against a basket of major trading partners (Figure 3).

Figure 3: Stabilisation in the trade-weighted USD on the horizon

Source: Amundi analysis on Bloomberg data, as of 20 February 2019.

"Lower macro liquidity and high debt levels mean that some areas of the market will become more vulnerable. Accurately assessing market liquidity is key to building resilient portfolios and detecting areas offering compelling liquidity premia".

We are moving towards an environment that looks to be more vulnerable to changes in market sentiment, as uncertainty regarding global liquidity comes at a time when the global debt pile stands at record high levels, making the most indebted sectors far more vulnerable to any tightening in global liquidity and financial conditions. These are the areas where micro market liquidity also deteriorated after the crisis (see Section 2). Hence, for asset managers and investors, we think it is time to increase awareness of liquidity conditions in portfolio construction (see Section 3) to assess how and when an isolated problem could become a bigger one or when a liquidity shock could instead become an opportunity, creating an appealing liquidity premium in certain assets.

2. Market liquidity: fragile markets ahead amid higher volatility

"Market liquidity saw a structural decline in some areas after the crisis".

While on the macro side, as we have seen, liquidity remained abundant in the aftermath of the crisis, we see a liquidity paradox when looking at the micro (financial markets) side. In fact, micro liquidity declined in various areas of the market (see Q&A – the trading desk view on market liquidity – on page 11), and current market uncertainty is further exacerbating this trend.

Fixed income: some deterioration in credit market liquidity after the crisis

Liquidity in core government bonds is abundant, making this asset class a source of liquidity for investors. A different story applies for government bonds facing idiosyncratic risks (for example, Italy in 2018 amid discussion on the budget deficit). In these cases, events in usually highly liquid markets can result in episodes of liquidity shortage.
Most recently, credit markets and emerging markets have been the areas where liquidity has been shrinking the most and requires more accurate assessment.

Table 1: Liquidity of fixed income markets at the beginning of 2019

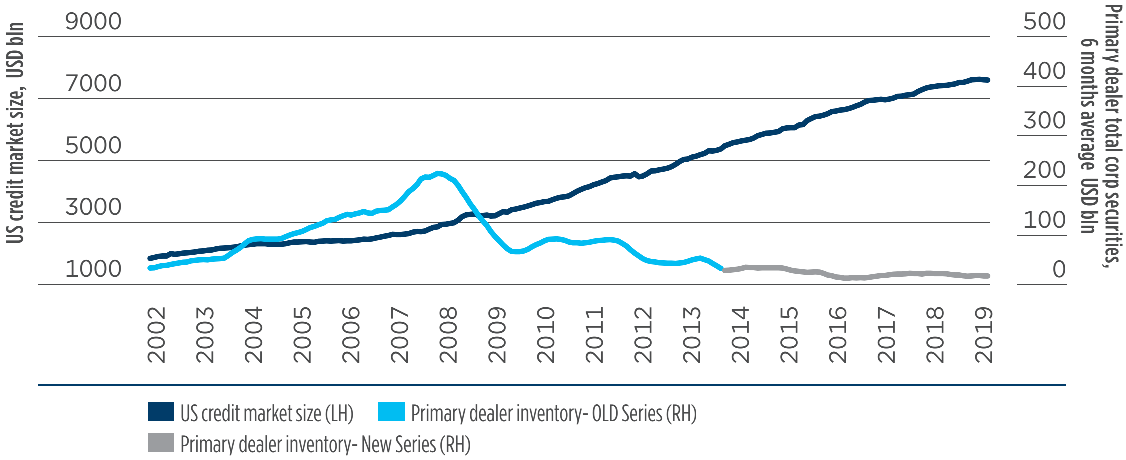
Segment	Liquidity assessment	Recent trend
Government Bonds	GOOD and STABLE	Benign conditions
SSA & Covered Bonds	SOME CHALLENGES	While in early January selling bonds was the challenge, recent risk-on mode made sourcing bonds now more challenging.
IG Credit	SOME CHALLENGES, RECENTLY IMPROVING	Stable to slightly better liquidity conditions compared to end-2018.
HY Credit	SOME CHALLENGES, RECENTLY IMPROVING	Stable to slightly better liquidity conditions in 2019, after a more challenging end of year in 2018.
Emerging Markets	SOME CHALLENGES	Some improvements as markets are becoming more supportive of the asset class, but market depth still thin.

Source: Amundi, data as at 10 February 2019. For illustrative purposes, views are subject to change. SSA = supranational, sub-soverign and agency.

"The size of the US credit market has expanded significantly while dealer activity has shrunk".

In credit markets, some structural headwinds at play are driving liquidity lower. Following the GFC, changes in regulations have resulted in a reduction of bank and dealer activity at a time when the credit market size has increased significantly, especially in the higher-yield (less liquid) space.

Figure 4: US credit market: lower dealer inventories vs rising credit market size



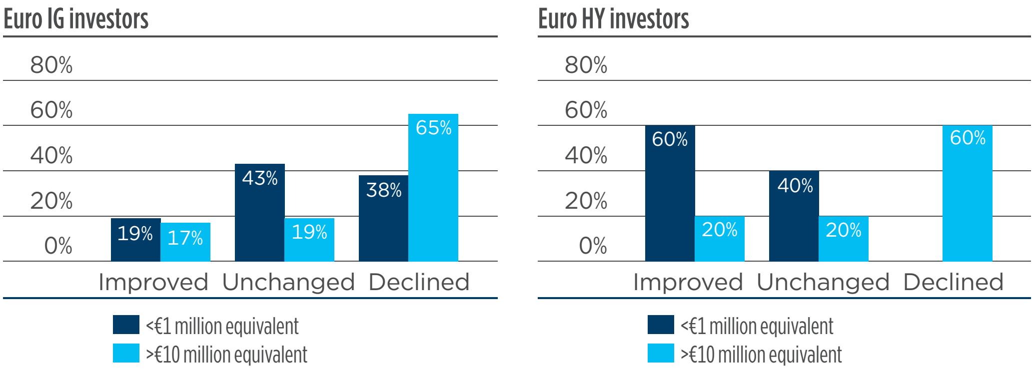
Source: Amundi analysis on Bloomberg, Federal Reserve Bank of New York. Data as of 20 February 2019. The US market size is the sum of the cash indices face value for the ICE BofAML US IG (C0A0) and HY (H0A0) indices. The old series, which has been discontinued in 2013 refers to Primary Dealer Positions Outright Level Corp Securities Due Greater Than 1 Year and included structured securities.

In the US, total bond issuance surged by 69% in the decade after the crisis (2009-2018) compared to pre-crisis levels (1999-2008) while issuance of US HY bonds surged by over 180% in the same period[1].

"In European credit markets as well, liquidity appears to be deteriorating for large transactions".

Credit markets in Europe have also expanded, but liquidity started to become more challenging in 2018, with recent surveys[2] suggesting some further deterioration particularly for large transactions (over 60% of respondents pointed to a decline in Euro credit liquidity, both IG and HY).

Figure 5: Euro bond investors: assessment of liquidity conditions in 2018, based on size of transaction



Source: BofA Merrill Lynch, Credit market liquidity – 2018 edition, data as at September 2018.

Liquidity in credit markets is, therefore, going to be a key factor to consider in the investment decision process. In fact, potentially appealing valuations (for example identified through a quantitative screening) could be consistently affected by poor liquidity conditions, making the investment case less appealing because of the high liquidity cost.

But changing liquidity conditions can also offer opportunities. In particular, in phases of market uncertainty and risk-off mood in the market, corporate bonds can experience higher liquidity premium that could offer entry points for investors. This has been the case, for instance, of the European investment grade primary market at the end of 2018 (and beginning of January 2019), when new issue premiums peaked.

[1]Source: Securities Industry and Financial Markets Association (SIFMA), data as at 28 January 2018.
[2]Source: BofA Merrill Lunch *Credit market liquidity – 2018 edition* at 12 September 2018.

"Some emerging markets can now count on a broader domestic investor base while other are more vulnerable to foreign flows".

Emerging markets (EM): a scattered picture, with some areas of vulnerability and some more liquid domestic markets

Liquidity assessment in emerging markets is particularly relevant, as these economies remain mostly dependent on foreign investment, and therefore any tightening in financial conditions (as, for instance, occurred in 2018 with the strong USD) could result in idiosyncratic areas of stress and deterioration in market liquidity (see page 12, liquidity evolution in EM).

Table 2: IMF and BIS assessment of emerging market liquidity

	Foreign Investors		Domestic Investor Base				Market Liquidity/Depth			
	Dept	Equities	Mutual funds	Insurance	Pension funds	Banks assets	FX turnover (Spot)	FX turnover *(Forwards, Swaps, Options)*	Equity turnover	International debt trading volume
	% GDP	% GDP	% GDP	% GDP	% GDP	% GDP	% GDP	% GDP	% Mkt Cap	% GDP
	2018:Q1	2018:Q1	2017	2016	2016	2017	Apr. 2016	Apr. 2016	2017	2018:Q1
China	3	6	14	20	1	308	0.3	0.4	192	1
India	4	6	12	17	1	75	0.7	0.9	43	1
Indonesia	16	11	3	4	2	57	0.3	0.2	18	10
Malaysia	29	26	60	20	60	188	0.5	2.3	28	3
Philippines	8	17	2	8	4	101	0.4	0.4	12	12
Thailand	9	29	30	22	6	186	1.0	1.6	59	1
Argentina	22	4	5	5	...	34	0.2	0.0	7	30
Brazil	11	18	60	13	13	191	0.4	0.7	70	10
Chile	25	12	20	22	70	114	1.6	1.4	12	10
Colombia	25	3	...	7	22	70	0.7	0.6	11	18
Mexico	32	13	10	7	14	67	0.6	1.3	27	19
Peru	19	11	4	6	21	63	0.4	0.4	6	20
Hungary	29	13	12	8	4	99	0.6	2.1	32	14
Poland	25	10	8	10	8	94	0.4	1.5	34	12
Russia	5	11	0.2	2	4	90	1.5	2.0	23	7
South Africa	26	57	52	66	100	114	1.0	6.1	31	17
Turkey	15	6	2	5	2	105	0.8	1.8	172	14
Median	**19**	**11**	**11**	**8**	**7**	**99**	**0.6**	**1**	**28**	**12**

Source: IMF Global Financial Stability Report, October 2018. Sources: Bank for International Settlements; CEIC; EMTA; IMF, International Financial Statistics database, World Economic Outlook database; Investment Company Institute; national authorities; World Bank, Global Financial Development database; World Federation of Exchanges; and IMF staff calculations. Note: Pension fund data include private and funded plans. Mutual fund data exclude closed-end funds and exchange-traded funds. For each indicator, the "best" and the "worst" quartile values are highlighted in green and red, respectively, across a snapshot of different countries, with the assumption that it is better to have deeper domestic investor base and market liquidity. FX turnover is quoted on a daily basis. FX = foreign exchange; Mkt Cap = market capitalization.

"Assessing the liquidity of each emerging country is key for investors, as it can become a source of vulnerability in case of changes in market sentiment".

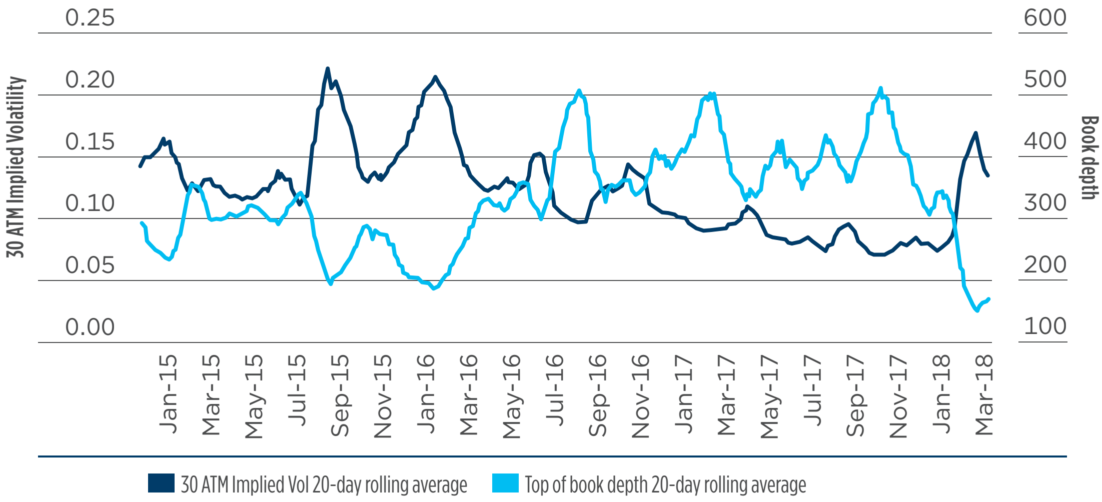
Poor market liquidity could in these instances further exacerbate the repricing, with spill-over effects being experienced across other EM countries. Yet, we note that some countries appear more solid in terms of market liquidity, as they have benefitted from the development of their domestic investors bases (see, for example, Malaysia, Chile and South Africa, which have more developed domestic investor bases, in the analysis by the the IMF in Table 2). For these countries, the presence of a broader local institutional investor base could help to counter-balance international flows during a liquidity crisis. However, as the IMF recently highlighted, investors should also be mindful that more liquid spaces with deep local financial markets could be used as "proxies" for scaling back the overall EM exposure in times of stress (this is the case, for instance, of Mexico, due to its liquidity) and hence be subject to possible excessive repricing. Having a deep understanding of each country's financial and liquidity profile is therefore key to detecting areas of risks, but also opportunities when liquidity premia become appealing.

Equity: fragile sentiment amid a late phase of the cycle affects liquidity

"In equity markets, liquidity is generally high, though when volatility rises, it tends to decline".

During the late phase of the financial cycle, as is the case for the one we are currently in, financial markets start to discount the risk of a recession and market sentiment becomes more fragile amid greater uncertainty on future earnings expectations and monetary policy actions – even more so in the current environment which is characterised by high political uncertainty around tariff negotiations, Brexit and European elections. Higher market uncertainty translates into higher levels of volatility (and future expected/implied volatility), and into lower liquidity available in the market. This trend has been confirmed in 2018, with overall book depth in the S&P500 E-mini futures contract, one of the most liquid futures in the world, sensibly deteriorating during the February volatility spike episode.

Figure 6: S&P500 E-mini future depth shows a negative correlation with volatility



Source: CME Group, Quickstrike (ES). See also CME group blog 30 April 2018 "Volatility Returns: Phase Transition in Equities".

In our view, the deterioration of market liquidity in such a phase of volatility is also due to the proliferation of quantitative strategies and some risk management approaches that could result in the forced selling of risk assets when volatility rises further, magnifying market movements. On a positive note, the rise in assets managed by institutional investors, such as pension or sovereign funds, that can take a long-term view, could somewhat counterbalance this trend.

FX: concerns about liquidity deterioration for 2019

The development of electronic trading and a reduction in proprietary trading activity have also influenced liquidity in FX markets. Although currency trading remains highly liquid, concerns are rising that liquidity could contract quickly, causing flash crash episodes in the market. According to a recent survey among[3] market participants, liquidity availability represents the key challenge for 2019, with 40% of respondents citing this as their top daily issue for 2019, up from 29% of respondents in the previous year's survey.

[3]JPMorgan FX e-trading survey 2019 and 2018.

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3. Implications for asset managers and investors

The role of an asset manager in financial markets changed dramatically after the crisis. As we move towards an environment that is potentially more vulnerable to liquidity shocks, it is key to assess the measures that managers could implement to deal with liquidity risks. This could help in avoiding a liquidity trap, where changes in market sentiment might translate into significant redemptions, with subsequent impacts on market liquidity further exacerbating losses in a negative spiral.

"Asset managers should include liquidity considerations in the asset allocation phase, stress test portfolios against adverse liquidity conditions, and continuously monitor the evolution of market liquidity".

From an asset manager's point of view, liquidity risk may be defined as the ability to address a specific redemption scenario based on the best interest of investors – ie, without there being a significant impact on either the structure or the valuation of the assets in the fund. To address a significant redemption scenario, in fact, the asset manager will have to sell assets. When market liquidity is abundant, this transaction should not have a significant impact; however, the situation might change in a phase of liquidity stress.

From an investment perspective, we think it is key to assess liquidity risk at all steps of portfolio construction and product design, and through the investment process[4] around the following areas of action:

Design investment product and build portfolios considering liquidity risk factors to ensure the right compensation for the liquidity risk and a liquidity profile coherent with the portfolio time horizon and investment objectives. This is key to managing the so-called trade-off between performance and liquidity. Is it really a trade-off, though, as liquidity tensions are rising in a falling market? Usually, lower liquidity drives higher return potential over a long-term horizon (all other factors being equal) while a high liquidity buffer can be seen as detrimental to future performance. Yet, the issue is that when liquidity dries up, the price of liquidity (liquidity premium) also increases and therefore returns on some assets facing temporary liquidity issues can deteriorate before improving. Furthermore, when liquidity is poor, on-screen prices do not represent real marked-to-market prices for large deals, given the very low sizes offered on the screen for such a price, making it more challenging to correctly price the liquidity premium. As such, increasing liquidity buffers in anticipation of future greater liquidity tensions is key for avoiding being forced to sell some areas of the portfolios in a challenging market environment.

Include liquidity management considerations as part of any investment decision and in particular as regards the discipline of profit-taking. As such, investors should be disciplined when taking profits to factor in the current and future costs of liquidity in the trading phase (depth, cost in terms of bid/ask attached to execute a trade given its size). In fact, in some areas (credit notably), profit-taking can take quite a long time to execute if an investor does not want to incur high liquidity costs.

Enhance liquidity risk management through the continuous monitoring of liquidity within a portfolio (liquidity scores based on a complete set of factors, ranging from individual characteristics of the single issue, common characteristics and group factors) and assessment of the overall portfolio liquidity profile during stress events considering the liquidity profile (time to liquidate a certain percentage of the AUM), liquidity cost and portfolio distortion effects.

[4]For more information on Amundi's way of managing liquidity risk see also the paper, *The fixed income liquidity challenge* at http://research-center.amundi.com/page/Publications/Divers/The-fixed-income-liquidity-challenge?search=true

Assessment of market liquidity to detect early signals of deterioration in the market environment based on both quantitative and qualitative assessments of liquidity.

These steps would allow the identification in advance of possible areas of liquidity risk and adjustment, where possible, of the allocation to make it more resilient in case of liquidity shock. Additional mechanisms are also available to further increase investor protection.

Table 3. Additional investor safeguarding measures in case of liquidity crisis

Mechanism	Comments
Swing pricing	Aims to protect existing investors from the performance dilution effects they may suffer as a result of subscription/redemptions by other investors in the fund
Liquidity buffer	Defined as the short end of the counter-balancing capacity per fund/investment process under stressed markets
Liquidity crisis management	One-off process aimed at coordinating teams in an extreme liquidity crisis

Source: Amundi.

In our view, other measures, such as credit facilities at the fund level and cross trades, should not be considered as adequate solutions and can only address very localised and short term (ie, for a few days) issues. Furthermore, these two mechanisms also raise serious fairness issues.

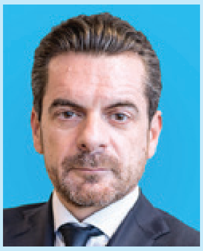
Asset managers should also conduct regular review of their product range and consider fund mergers, as large funds are less likely to face liquidity issues.

"Investors should also be aware that the liquidity they had become used to may not last forever and, hence, be prepared for phases of lower market liquidity".

Investors should also embrace a more active role in understanding and assessing the liquidity risk they face, as the future situation regarding liquidity may not resemble that seen in the past.

We see five main areas of actions for investors:

1. Include liquidity considerations in asset allocation and consider increasing the share of high-quality and liquid bonds as a liquidity cushion;
2. Avoid concentration in crowded trades and include liquidity considerations in the selection of investment ideas;
3. Avoid investments with excessive leverage that can be more exposed to liquidity risk;
4. Assess fund managers' liquidity risk management processes;
5. Exploit opportunities in assets with significant liquidity premia when they arise.



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Q&A: the trading desk view on market liquidity

What are the key indicators that you consider to assess liquidity in each asset class and how have they evolved in recent years?

Liquidity is a multi-dimensional concept that typically refers to investor ability to execute large orders with limited price impact, and is usually associated with immediacy and low cost of execution.

Table 4: Aspects of liquidity that can be measured

Price impact	The price movements of the traded asset in the immediate aftermath of the trade
Depth	A market is deep when there is a large amount of trades on both direction on a frequent basis. It can be defined by trading volumes, turnover and number of price makers
Resilience	It indicates the ability of liquidity to remain consistent even in times of volatility spikes. It is strictly correlated with market depth and is measured by number of market makers available, size for price vs volatility spikes
Cost	Bid-ask spreads, round-trip cost
Breadth	It typically refers to the consistency with which liquidity is distributed across asset classes. This can be captured through the number and diversity of market participants in terms of volumes and typology of asset traded
Immediacy	It typically refers to the time required to complete a transaction. Market makers are a source of immediacy. Agency trading can be challenging for certain less liquid assets

Source: Amundi Intermediation.

"After the 2008 crisis, liquidity has become more fragmented across different venues, average sizes have decreased, and it has become more challenging for large asset managers to source liquidity in large size".

From a trading perspective, how has liquidity and market structure in financial markets evolved after the crisis?

The credit crunch of 2008 and the latest regulations that were introduced since then (eg, Mifid II) led to profound changes in market structure, which had significant impacts on market liquidity, both negative and positive.

Factors with positive impacts

- Accommodative monetary policies of CB, which supported a good level of liquidity
- Increase in use of technology by financial markets which has facilitated the connection between buyer and seller and reduced the cost of trading
- Development of new trading protocols (buy side-to-buy side, all-to-all) which are facilitating the creation of liquidity by launching new ways of connecting buyers and sellers

Factors with negative impacts

- Reduction in market-making activity, a key source of liquidity, due to an increase in capital charges and a decline in risk appetite across investment banks post-crisis
- Falling trading turnover, due both to the reduced level of liquidity available and to the nature of the asset owners (long-term investors, such as asset managers, pension funds, insurance companies)
- Record increase in corporate bond issuance, incentivised by low interest rates, which created a gap between the size of the primary market and the size of the tradable secondary market
- Contraction of repo market, due to lower profitability in the ultra-low-rates environment, another key source of liquidity and re-financing for market makers
- Increased demand for liquid assets that have to be held due to stricter regulatory collateral requirements

The overall effect has been a proliferation of new trading venues and technology vendors, in both equity and fixed income spaces. Liquidity has become more fragmented across different venues, average sizes have decreased, and it has become more challenging for large asset managers to source liquidity in large sizes.

"In 2018, liquidity shrank. Financial markets appeared to become larger houses with smaller exit doors".

How do you think liquidity has evolved over the last year across the different asset classes?

Developed markets are doing fine. Liquidity in equities has remained at good levels, with no major sign of stress, even when trading in large sizes. Liquidity in developed sovereign and credit has also remained quite stable, although in European credit, liquidity discovery can become challenging when sizes increase.

Emerging markets are quite a different story. Liquidity here has been shrinking progressively over the last year, especially in the fixed income space. In general, given the significant growth of the asset manager in terms of assets under management, financial markets seem more and more a bigger house with smaller exit doors. The ability to transact in any meaningful size on the secondary side has in some ways diminished across all asset classes and that would be exacerbated in case of market turmoil. So, one has to be very comfortable with what is in the portfolio, because when the market falls, it is harder to get out.

Table 5: EM bonds liquidity evolution in 2018

Sizes larger than USD 2.5M	Sourcing big sizes on an electronic venue is unlikely. Across the last year, we have seen a huge drop in the number of tickets for sizes larger than this, with the volume being traded "voice" instead
Sizes lower than USD 2.5M	Some electronic trading is gaining popularity in the EM space, although only for small sizes (< USD 500K).

Source: Amundi Intermediation.

"Big asset managers, with a global trading organisation, can ensure the best mix of connectivity to liquidity venues and relationships with counterparties".

How can a big asset manager benefit from its size in terms of accessing to liquidity in the markets?

When liquidity is low and market impact might be significant, the only efficient approach is to source liquidity from all available sources. Hence, being big means having a global trading organisation capable of ensuring the best mix of connectivity to liquidity venues and relationships with counterparties to ensure as many liquidity touch points as possible. Large dormant inventories held by asset managers, pension funds and other institutional investors could also become sources of liquidity that can be used as alternatives to the now greatly reduced capacity of broker/dealers to use balance sheets to facilitate client trades. This could be achieved by shifting from a pure price taker role to that of a price maker, a role that large asset managers have to start considering. The reward would be to take out the spread instead of paying the spread. A price maker, in fact, buys at the bid and sell at the offer; therefore, the net result will be a significant improvement in terms of pricing and eventually performance for the end-client.

"In the future, asset managers could also consider shifting from a price taker only role to that of a price maker. This change could result in significant improvements in terms of pricing for clients".

Table 6: How asset managers should be equipped to become liquidity providers

Ability to manage inventories	▪ Asset managers have the advantage that they do not have to refinance their long maturity inventory every day in the overnight repo market and therefore do not have to bear the risk of not being able to roll over repo during a liquidity crunch ▪ Asset managers are not subject to the Basel III Liquidity Ratios which also raise the cost of broker/dealer market-making. Their portfolios are already funded by their fund investors, so they are better placed to provide liquidity to each other than is the case for highly leveraged intermediaries
Skills and IT infrastructure	▪ Certainly, the skills required to price securities are very different from those of the traditional institutional buy-side trader, whether in equities or bonds. This requires skills, competence and platforms ▪ This requires a move to a multi-asset trading desk and a global integrated trading IT infrastructure capable of supporting the complexity of, and risks related to, such activity.

Source: Amundi Intermediation.

Definitions

- **Correlation:** The degree of association between two variables; in finance, it is the degree to which assets or asset class prices have moved in relation to each other. Correlation is expressed by a correlation coefficient that ranges from -1 (perfectly negative correlated) through 0 (absolutely independent) to 1 (perfectly positive correlated).
- **FX:** FX markets refer to the foreign exchange markets where participants are able to buy and sell currencies.
- **PMI:** Purchasing Managers' Indices (PMI) are economic indicators derived from monthly surveys of private sector companies. A reading above 50 indicates an improvement, while a reading below 50 indicates a decline.
- **Quantitative Easing (QE):** Quantitative easing (QE) is a type of monetary policy used by central banks to stimulate the economy by buying financial assets from commercial banks and other financial institutions.
- **Volatility** is a statistical measure of the dispersion of returns for a given security or market index. Usually, the higher the volatility, the riskier the security/market.

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AMUNDI Investment Insights Unit

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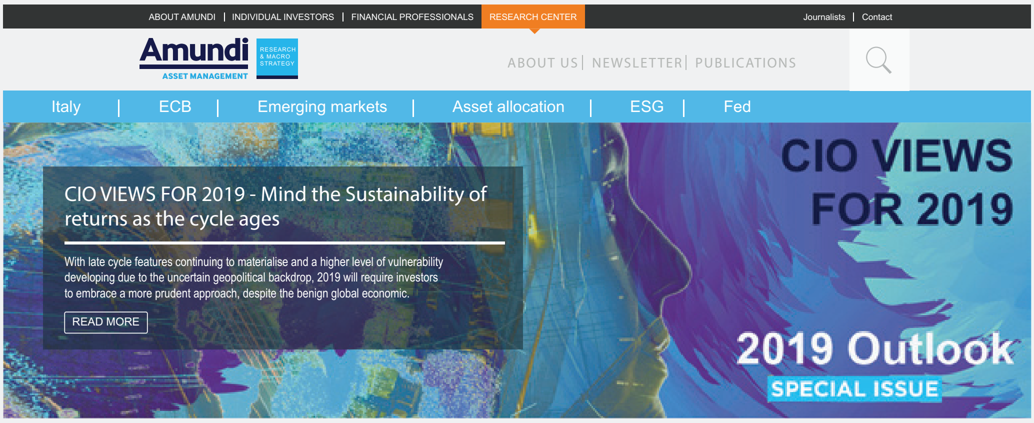

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