BVI remarks on the FSB’s Call for papers: Systemic risks and policies to address them in non-bank financial intermediation

BVI[1] remarks on the FSB's Call for papers: Systemic risks and policies to address them in non-bank financial intermediation (NBFI)

Executive Summery

We consider investment funds to diminish systemic risks in general as they balance between investors who want to divest and those who want to invest in a financial market. The fund industry is resilient and able to absorb economic shocks.

- Existing European sector-specific rules and additional national rules for asset managers provide a robust framework to address investor protection and entity-specific vulnerabilities. Strict principles apply to the assets in which an investment fund can invest. However, the eligibility of an asset must be assessed not only regarding the legal requirements, but also other aspects such as strict risk management processes including liquidity management and contingency planning. Management of inherent financial risks is an integral part of the internal risk control system.

- The German fund market is characterised by Alternative Investment Funds (AIFs). With net assets of almost EUR 2.2 trillion, these AIFs are predominantly 'Spezialfonds' for institutional investors. 'Spezialfonds' are well-established investment vehicles for many regulated institutional investor groups, such as insurance companies, and follow an overall risk-averse investment strategy with no use of leverage on a substantial basis. Hedge funds, in contrast, are not a relevant component of the AIF market in either the EU or Germany: They make up far less than five per cent of the EU AIF market with a net asset value (NAV) of around EUR 77 bn. Money market funds – with a market share of less than one percent – are not relevant for the German market either. The specifics of both hedge funds and money market funds and their effect on financial stability are therefore not considered in this paper.

- Our research shows that in- and outflows of a particular investor group of 'Spezialfonds' are mostly independent from other groups' behaviour and the current level of financial stress in financial markets, thus effectively limiting contagion risk. 'Spezialfonds' also did not propagate market stress through their investment decisions during the COVID-19 crisis. The available data on investment decisions of 'Spezialfonds' managers indicate pro-cyclical, but less pronounced changes in the asset mix compared to retail funds.

- Analysis of the German open-ended retail investment fund market shows that investment management companies for the most part can manage liquidity risks to fulfil daily redemptions of fund units. Liquidity management depends on the types of assets, investors, investment strategies, markets, and possible national legal restrictions for using liquidity management tools. When looking back to the post-crisis scenario after 2008, significant outflows first increased and later decreased slightly in open-ended retail investment funds, but not to the pre-crisis level. However, the average levels of significant net outflows did not change over time.

[1] BVI represents the interests of the German fund industry at national and international level. The association promotes sensible regulation of the fund business as well as fair competition vis-à-vis policy makers and regulators. Asset Managers act as trustees in the sole interest of the investor and are subject to strict regulation. Funds match funding investors and the capital demands of companies and governments, thus fulfilling an important macro-economic function. BVI's 116 members manage assets of some EUR 4 trillion for retail investors, insurance companies, pension and retirement schemes, banks, churches and foundations. With a share of 27%, Germany represents the largest fund market in the EU. BVI's ID number in the EU Transparency Register is 96816064173-47. For more information, please visit www.bvi.de/en.

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We see the need to further discuss the following policy tools and approaches that can be used by investment funds and regulatory authorities to address systemic risk:

- Narrowing down the range of eligible assets is not a commensurate measure to address any perceived shortcomings identified in individual cases with internal and external governance failures on fulfilling the strict framework for asset managers. The same applies to liquidity buffers in investment funds. Instead, we are in favour of further developing the governance requirements while retaining the flexibility in terms of eligible exposures and liquidity management.
- Financial stability supervisors must operationalise their macro-prudential toolkit.
- Liquidity management tools should be made available to all jurisdictions.
- There is a need for a common understanding on how to calculate leverage in investment funds.
- There is a need for a single regulatory reporting mechanism which would reduce operational effort and burden for asset managers as well as supervisory authorities.

Other topics relevant for the FSB's Call for papers

- Against the background of the unfolding COVID-19 pandemic, interventions by Central Banks helped to keep financial stress at an acceptable level. The introduction of PEPP was a turning point in terms of market sentiment and the extension of the range of eligible securities to non-financial commercial paper further helped to alleviate market tensions in a very volatile environment.

- Operational risks of asset managers are already covered by own funds. According to our experience based on the BVI's Operational Risk Database statistics, operational risks materialising in our membership amount to about EUR 78,000 on average per year and case.

I. General remarks

As representative of the largest European fund market, we are happy to contribute our practical expertise to the initiative of the Financial Stability Board (FSB) in order to better understand potential systemic risks of non-bank financial intermediation (NBFI), especially the activities of investment funds and its managers.

1. Germany is the largest market in the EU.

In the EU, a total of more than EUR 13 trillion is invested in investment funds by private and institutional investors. With assets of EUR 3,600 billion, Germany is the largest market (according to the ECB) with a market share of 27 percent. An annual growth rate of 9.6 percent makes Germany one of the fastest growing markets, surpassing, for instance, France, Italy, and The Netherlands. In a context of continued inflows and growth of the asset management sector, financial stability bodies such as the European Systemic Risk Board (ESRB) and the European Central Bank (ECB) have called for an impact assessment of the resilience of the current framework applying for asset managers providing services in the EU. We welcome further discussion of this issue at international level. The Policy Recommendations[2] of January 2017 published by the FSB have significantly rationalised the political debate. Rather than speculatively insinuating systemic risks based on mere quantitative considerations, the FSB addresses potential structural weaknesses in the existing fund regulation in a targeted manner. Accompanied by additional discussions between the roles and tasks of supervisory authorities, the current work is focused on understanding potential implications from asset management activities such as liquidity mismatch of open-ended investment funds and leverage within funds. In this general debate, a distinction will need to be made between the impact on investors to protect their interests and the impact on the financial market to protect the financial stability.

2. Alternative funds are much more than just hedge funds.

Asset managers bring together the supply of capital from investors and the demand for capital by businesses and countries around the world. In this way they provide equity capital and debt capital to businesses for growth and innovation and assist states in performing their functions. While hedge funds were the focus of the financial crisis response, the EU alternative funds universe was subsequently defined by lawmakers to be broader, including private equity and real estate funds, but also a large residual of vehicles pursuing diverse strategies mainly in bonds and equity and taken up by institutional investors as the main investors. In terms of assets, hedge funds, in fact, make up far less than five per cent of the EU AIF market with a net asset value (NAV) of around EUR 77 bn.[3] Most hedge funds sold in the EU are managed outside the EU (primarily in the UK). Investment funds are intermediaries. They bring together money provided by millions of savers and institutional investors. Most institutional investors of investment funds are highly regulated entities such as insurance companies, banks, or institutions for retirement provision. Although Germans mostly save for their retirement through life insurances or occupational pension schemes, they are indirectly investing in investment funds, as most pension plans invest in 'Spezialfonds', i.e., AIFs. Therefore, investment funds support financial market functioning and the provision of market-based finance to the real economy.

[2] https://www.fsb.org/wp-content/uploads/FSB-Policy-Recommendations-on-Asset-Management-Structural-Vulnerabilities.pdf.
[3] ESMA Report on Trends, Risks and Vulnerabilities, No. 2, 2021, page 27, available under the following link: https://www.esma.europa.eu/sites/default/files/library/esma50-165-1842_trv2-2021.pdf.

3. Existing European sector-specific rules for asset managers provide a robust framework to address investor protection and entity-specific vulnerabilities.

Both the European Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS Directive) and the European Directive 2011/61/EU on alternative investment fund managers (AIFMD) fully cover the activities of fund managers in the European market. They provide strict rules on their authorisation, own funds requirements, operation conditions, organisational and transparency requirements, delegation of functions and reporting obligations to competent authorities. In addition, restrictive rules apply for products such as UCITS, money market funds (MMFs), European venture capital funds (EuVECAs), European social entrepreneurship funds (EuSEFs) and European long-term investment funds (ELTIFs). However, MMFs with a market share of less than one percent, EuVECAs, EuSEFs and ELTIFs are not relevant for the German market.

4. Managing investment funds differs fundamentally from business models of banks or other types of financial entities such as insurance companies.

Asset managers are neither banks nor insurance companies, but a separate pillar of the financial economy. They act as agents on behalf of their investors and are subject to fiduciary duties to act in the best interest of investors. They do not have custody over the assets, as these are 'safe-kept' by separate depositary institutions. The fund assets are thus never part of the asset manager's own balance sheet. Therefore, own capital of asset managers is not required to bail out struggling funds. Importantly, the investment results of investment funds – whether positive or negative – belong to the investors.

II. Special remarks

Regarding the questions raised by the FSB, we would like to point out the following considerations.

I. How to measure interconnectedness (and the potential for the propagation of market stress) within the NBFI sector as well as with banks and the real economy?

1. Background: The German market for 'Spezialfonds' at a glance

German 'Spezialfonds' are AIFs employing very different investment strategies and show a diverse investor base. However, they first and foremost are a core element of old-age provision in Germany. At the end of December 2021, investment management companies managed assets of almost EUR 2.2 trillion in 'Spezialfonds'. This represents over 60 percent of total fund assets of the German market. Open-ended securities funds, including many balanced funds, contributed the major part. Open-ended real estate funds[4], money market funds[5] and closed-ended products play only a minor role. Over the last ten years, overall assets managed by 'Spezialfonds' have grown by an average of approximately ten percent per year.

Their huge success over the past decades is based on three main reasons. Each of them illustrates a core feature of this unique fund type:

[4] Our members manage about 260 bn Euro net assets in open-ended real estate funds (as of 31 December 2021). Slightly more than half is managed in 567 'Spezialfonds' (135 bn Euro) and the rest in 67 funds for retail investors (125 bn Euro).
[5] About 34 bn Euro are held by German investors in money-market funds. This equates to 2 percent of the European MMF market.

a) **'Spezialfonds' are well-established investment vehicles for many institutional investor groups.** The first products were launched as early as the 1960s to provide insurance companies with a professionally managed option for investing their capital. In the 1990s, 'Spezialfonds' were subjected to dedicated legislation, opened to additional institutional investor groups and the catalogue of investable asset classes was expanded. As a result, many banks began to use 'Spezialfonds' in the management of their own portfolios. In recent years, the use of 'Spezialfonds' by retirement benefit schemes (e.g., pension funds) has grown considerably. In 2021, they have surpassed insurance companies to become the largest investor group. One important factor was the introduction of a legal right to use deferred compensation in 2001. Now, all employees in Germany have access to some form of a corporate pension plan.

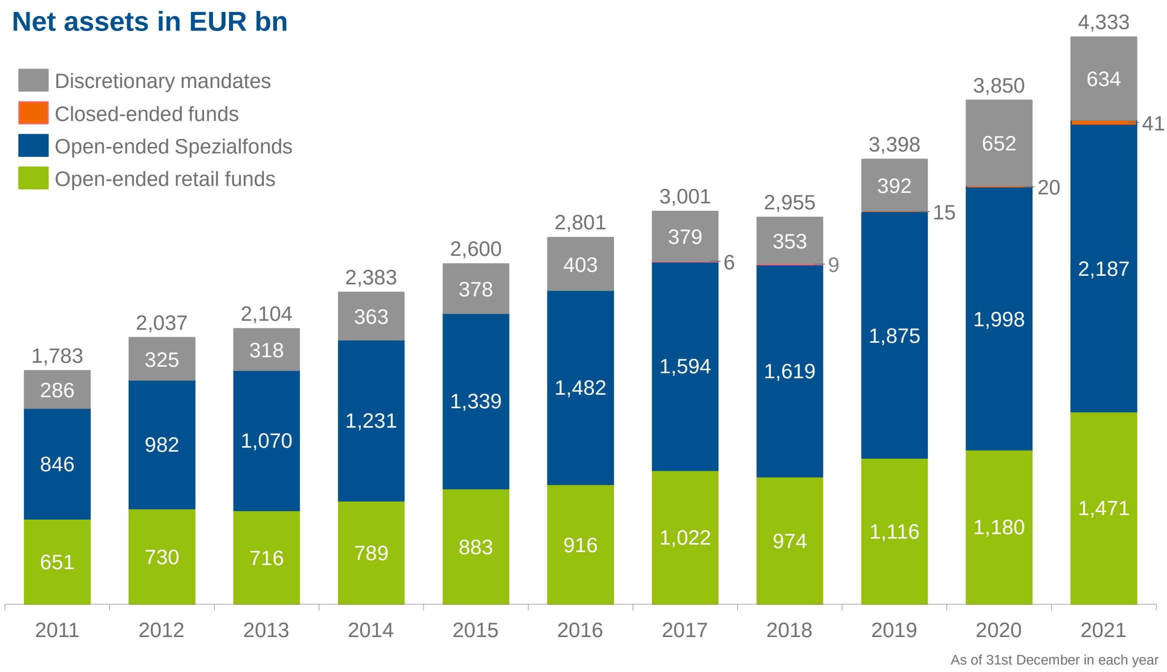

Figure 1: German total market overview; German investors hold funds and mandates worth over 4 trillion Euros.

b) **The second success factor of 'Spezialfonds' is the specialisation along the value chain**. For about ten years, so-called master investment management companies ('Master KVGs') have accounted for around 70 percent of total assets. Their role is to combine different asset classes as 'segments' in one fund. On the one hand, this allows to incorporate many different regulatory requirements of individual investor groups into a uniform reporting system. On average, an investment fund managed by a 'Master KVG' today contains more than four segments. This considerably simplifies tax and accounting procedures as well as performance measurement for institutional investors. The portfolio management of individual segments, on the other hand, is usually outsourced to individually mandated managers. 'Master KVGs' facilitate cooperation with providers specialising in certain asset classes as well as foreign investment managers. One consequence of the high degree of specialisation, resulting in strong competition between providers, and the high investment sums are very low costs, which often amount to only a few basis points.

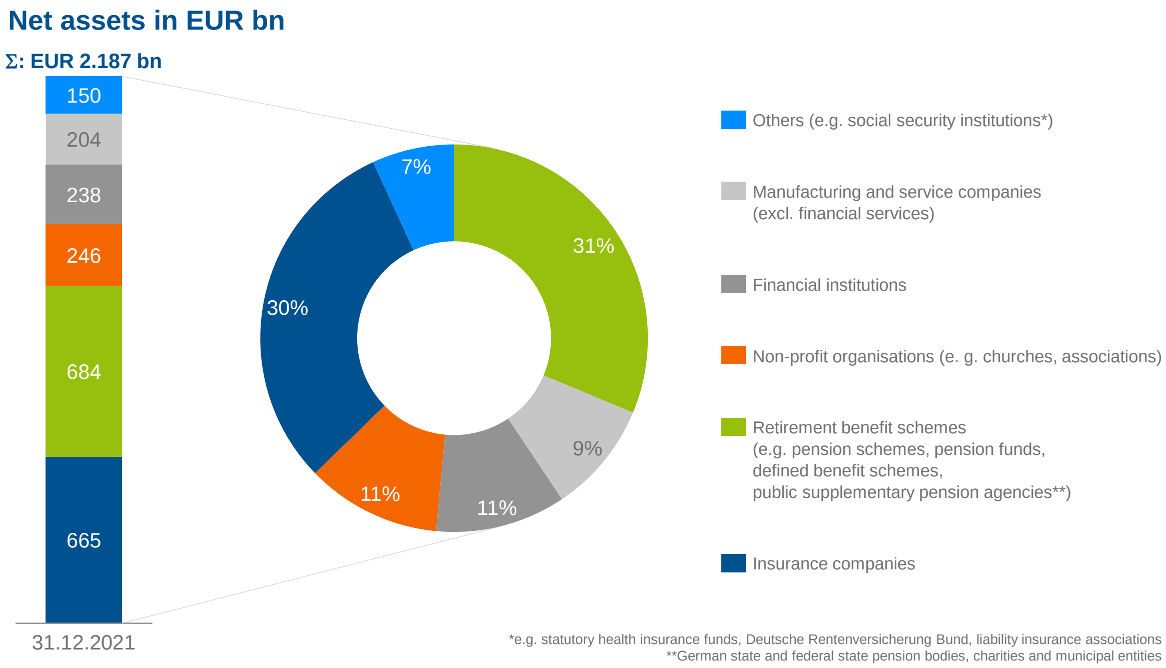

Figure 2: Retirement benefit schemes and insurers are the main investors in 'Spezialfonds'.

c) **Third, 'Spezialfonds' are less restrictive in terms of the investment universe than retail funds.** The eligible assets, investment and leverage limits are regulated by German law. Two versions are legally possible. One allows for a very flexible investment universe, as long as the principle of risk diversification is respected. In the original version, the law specifies a catalogue of allowed investment objects (including securities, real estate, and corporate investments) and investment limits. Historically, 'Spezialfonds' held almost exclusively bonds. This has changed somewhat in the context of the low interest rate environment. Nevertheless, 'Spezialfonds' invest conservatively, as their investors often are subject to own regulatory investment restrictions and have to meet pay-out obligations to pension recipients or insurance customers. Bonds continued to account for 58 per cent of all 'Spezialfonds' investments at the end of 2020, according to a TELOS survey.[6] The majority of these are government bonds and covered bonds, which can be considered as particularly low-risk instruments. The share of equities is around 15 percent and is slowly increasing. Especially shares from advanced economies are included in the portfolios. Real estate is the third largest asset class with a share of eleven percent. Real estate in Germany (80 percent of all real estate) and from the office and retail sectors form the basis of real estate funds. According to the TELOS survey, other illiquid asset classes, for example infrastructure investments or private equity, are of great interest to institutional investors – but so far only make up a small part of total assets.

[6] TELOS Spezialfondsmarktstudie 2021, Aktuelle Entwicklungen auf dem Spezialfondsmarkt aus der Sicht von Investoren, https://www.telos-rating.de/web/content/66427?unique=dda1aa2ae72c8eb38ac7434cb705930ae5a1c015&download=true.

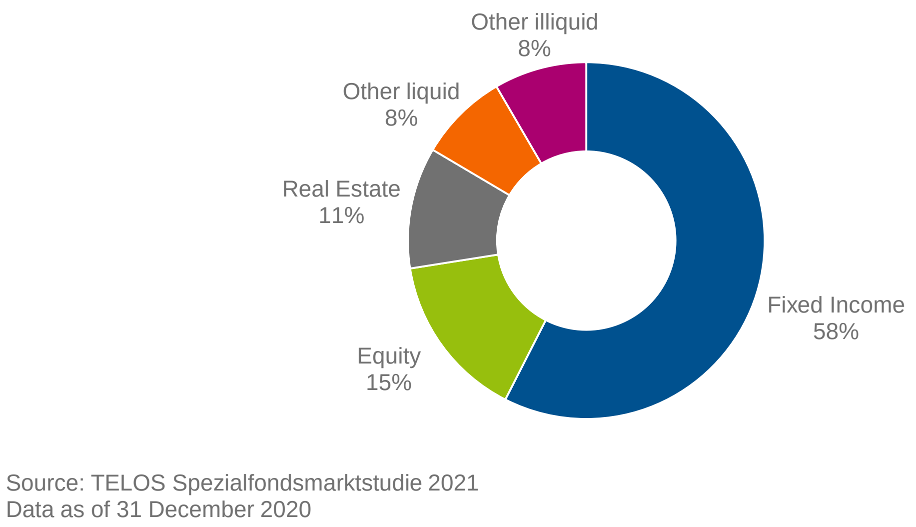

Figure 3: Investments of 'Spezialfonds' by asset class.

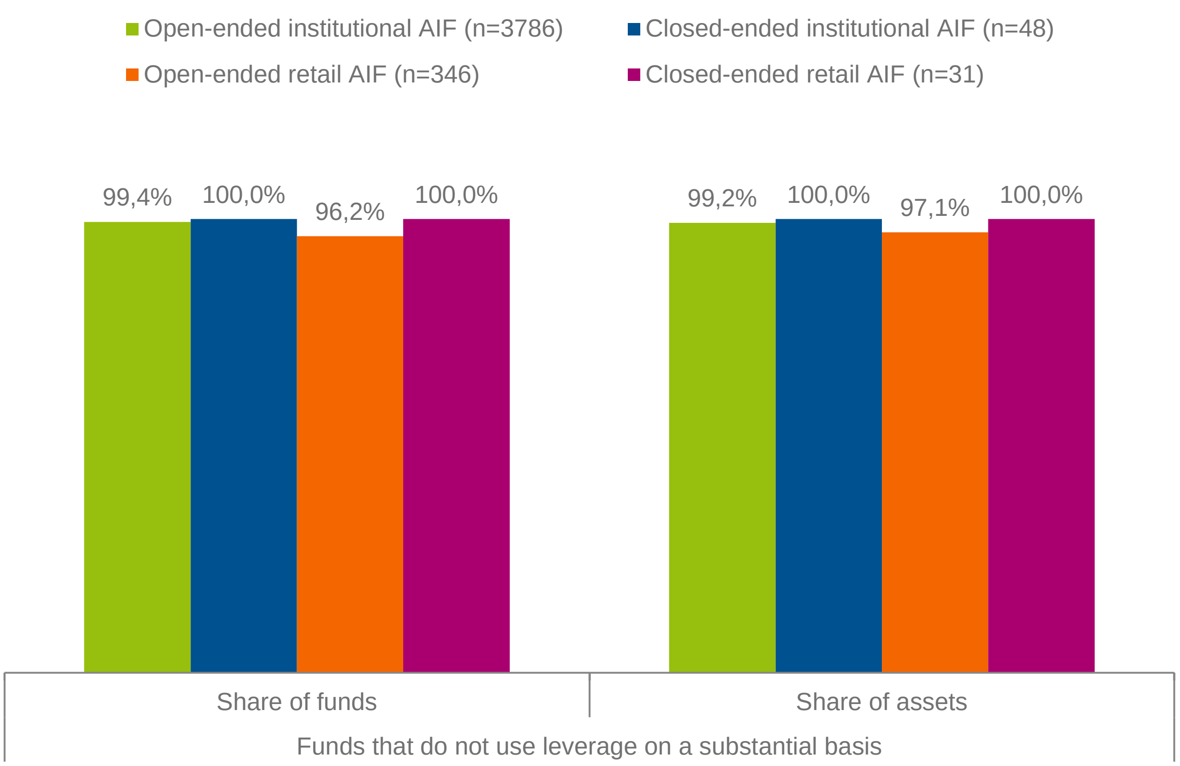

Figure 4: Use of leverage in 'Spezialfonds' as of 2020.

Furthermore, according to a survey among BVI members in 2020, only 0.6 per cent of 'Spezialfonds', which together managed EUR 13.9 billion, used leverage on a substantial basis (the exposure of the fund as calculated according to the commitment method under Article 8 of the Delegated Regulation (EU) No 231/2013 exceeds three times its net asset value). This also demonstrates the overall risk-averse investment strategy. In this context, it should also be noted that traditional 'Spezialfonds' with a specific catalogue of allowed investment objects have no longer been allowed to use leverage on a substantial basis since August 2021.

2. ‘Spezialfonds’ investors’ behaviour mostly independent from situation in financial markets

A special characteristic of the ‘Spezialfonds’ business is the steady inflow of new money, even during difficult market phases. Net inflows have amounted to at least EUR 30 billion in each six-month period for the last ten years. ‘Spezialfonds’ even recorded inflows in the market turmoils of 2008 and 2011, as well as during the COVID-19 crisis in March 2020. The reason for this is the stable supply of pension contributions and insurance premiums to institutional investors – as well as the particularly long investment horizon of many investors in ‘Spezialfonds’ (such as insurance companies).

The fact that ‘Spezialfonds’ investors act conservatively and do not invest cyclically is further illustrated by the following analysis. We have compared monthly net flows (in percent of assets under management) by investor groups since 2000 both to other investor groups, retail fund investors, and the ‘Financial Stress Index’ (as published by the US Treasury). Of course, this is for illustration purposes only, as we have not carried out a proper econometric analysis. Still, the reported correlations illustrate the (low) level of interconnectedness in the financial system through ‘Spezialfonds’: **Our core result is that in- and outflows of a particular investor group are mostly independent from other groups‘ behaviour and the current level of financial stress in financial markets. The largest investor group, retirement benefit schemes even invest more when market turmoil increases, and the correlation coefficient for insurance companies and non-profit organizations is close to zero.** These three groups account for 70 percent of total assets under management. Banks and other corporations react slightly pro-cyclical, but still to a lesser degree than retail fund investors:

		Retirement benefit schemes	Insurance companies	Non-profit organi-zations	Financial institutions	Manufac-turing and service comp.	Other	Retail funds	Financial Stress Index (inverted)
Spezial-fonds by investor category	Retirement benefit schemes	1,00							
	Insurance companies	0,05	1,00						
	Non-profit organizations	-0,07	0,09	1,00					
	Financial institutions	-0,03	0,08	-0,07	1,00				
	Manufacturing and service comp.	-0,02	0,08	-0,03	0,02	1,00			
	Other	-0,05	0,14	0,09	-0,04	-0,15	1,00		
For comparison	Retail funds	-0,24	0,17	0,06	0,09	0,21	-0,08	1,00	
	Financial Stress Index (inverted)	-0,22	0,02	0,04	0,19	0,23	-0,03	0,29	1,00

Figure 5: Correlation of monthly net flows by investor category in percent of total assets.

Box 1
Example[7]: Stabilizing Effect of the Insurance Industry as ‘Spezialfonds’-Investors

One of the main investors in ‘Spezialfonds’ in Germany is the insurance industry. At the end of 2020, insurers had invested around one-third of their total capital investments of EUR 1,835 billion in ‘Spezialfonds’. Insurers as ‘Spezialfonds’-Investors act with a long-term perspective. They provide their customers with products that offer risk protection and long-term guarantees, and at the same time have predictable cash flows that enable them to invest assets on a permanent basis.

[7] Remarks from Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV), Berlin.

Insurers' investments are essentially determined by business model-specific requirements. An integral part of investment and risk management is comprehensive asset-liability management, which aligns investment and contractual obligations on the liability side. Due to the often-long-term nature of their contractual obligations, insurers choose long time horizons for their investments. The steady inflow of funds in the form of insurance premiums to be paid by policyholders, current capital gains and regularly maturing securities - in combination with the long-term orientation of investments resulting from the business model - have a stabilising effect on the financial markets.

Unlike other players in the financial markets, insurers do not reallocate or rebalance their investments frequently. In view of the decline in interest rates over the years, insurers have adjusted their allocation and moderately increased alternative investments that still generate adequate returns. Due to the still conservative extent of these reallocations, which also take place over a comparatively long period of several years, there is no evidence of short-term pro-cyclical action in insurers' investments, but merely an adjustment of investment management to the long-term trend of falling interest rates and risk premiums. Moreover, demand for insurance coverage is also relatively independent of economic fluctuations and proves to be robust even in times of crisis, so that no relevant short-term cash outflows result from this. Neither in the year of the global financial crisis in 2008 nor in the course of the COVID-19 crisis were there any significant cancellation rate increases. For example, with regard to the market turmoil at the beginning of the crisis, the German Bundesbank attested in its Financial Stability Report 2020[8] that German insurers had a stable liquidity situation and acted countercyclically on the financial markets in the first quarter of 2020 (tending to buy securities whose risk premiums had risen). According to the Bundesbank, insurers are thus likely to have ‘contributed to stabilizing the financial markets.

Also, the influence of the interest rate level on the cancellation rate has also proved to be very limited in German life insurance in the past.

To conclude, for the German insurance industry, there are no indications so far that - under certain conditions, such as in crisis situations - there is a risk of same-direction portfolio reallocations that could exacerbate a decline in the prices of affected assets and thus amplify potential systemic risks.

3. ‘Spezialfonds’ did not propagate market stress through their investment decisions during the COVID-19 crisis.

A second potential way in which ‘Spezialfonds’ may be interconnected (thus having the potential for the propagation of market stress) is through their investment, or indeed lack of divestment, decisions during periods of financial stress. As already indicated in above observations, even in March 2020, when volatility was particularly high due to widespread fears related to the COVID-19 pandemic, open-ended ‘Spezialfonds’ reached net <u>inflows</u> of more than EUR 9 billion. This equated to 0.5 percent of total assets at that time (EUR 1.9 trillion). Against the background of the unfolding crisis, fund managers altered the asset allocation of ‘Spezialfonds’ – but only moderately. According to figures collected by Deutsche Bundesbank, they built up cash holdings by EUR 26 billion (increasing their share is the asset mix from 3.8 to 5.6 percent). Bonds accounted for 52.7 percent at the end of March 2020, which is exactly the same share as in the previous month. However, the value of equity held fell by EUR 40 billion (equating to a reduction in total AuM from 13.1 to 11.7 percent). A large part of this effect can be explained by declining asset prices rather than actual divestments, though. After all, the MSCI World IMI fell by more than 14 percent in March 2020. The available data on investment decisions of ‘Spezialfonds’ managers therefore indicate pro-cyclical, but moderate changes in the asset mix.

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[8] https://www.bundesbank.de/resource/blob/847060/f947755bc93877a2ca3f33169b3175e1/mL/2020-finanzstabilitaetsbericht-data.pdf.

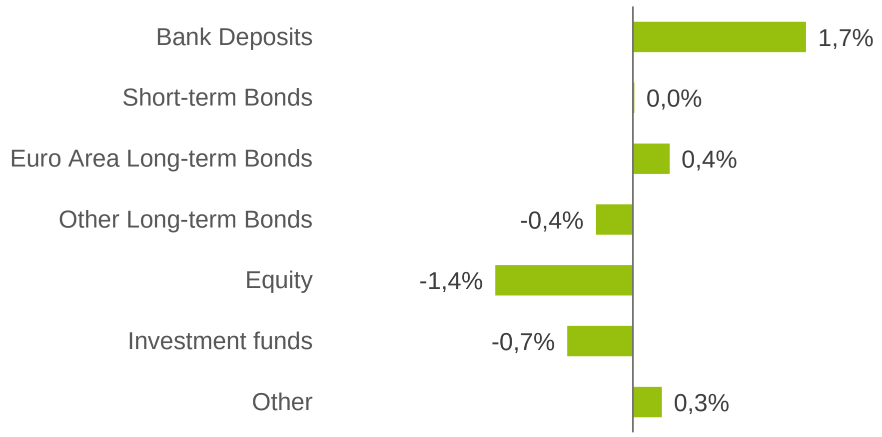

Figure 6: Change in Spezialfonds' asset class composition during the market turmoil in March 2020

II. The drivers of liquidity imbalances in bond markets (demand and supply sides) and their implications for systemic risk.

1. Market illiquidity and implications for asset managers assessed by the ESRB

The sharp drop in prices observed at the start of the COVID-19 pandemic in March 2020 was accompanied by significant outflows from some investment funds and a deterioration in the liquidity of financial markets. While market conditions have stabilised, the European Systemic Risk Board (ESRB) was concerned that investment funds will face further redemption pressure if the macroeconomic outlook deteriorates more than it was expected. The ESRB therefore issued a Recommendation[9] requesting the European Securities and Markets Authority (ESMA), in consultation with national supervisors, to assess the risks of funds that invest significantly in corporate bonds and real estate. In particular, supervisors should analyse possible future adverse shocks, taking into account potential significant redemptions, redemption frequency, leverage and any uncertainties in the valuation of these rather illiquid assets. The ESRB also expects to hear whether there is a need for additional action in relation to these funds (e.g., further guidance on the use of liquidity management tools or on how to deal with the valuation of assets in the crisis). The Recommendation also highlights the specific regulatory framework for UCITS and AIFs, which already contains strict risk and liquidity management requirements. With this initiative, the ESRB wants to ensure that supervisors are prepared for possible new crises. The measures are part of the ESRB's priorities for dealing with systemic risks in the crisis, with a focus on financial market liquidity and the impact on asset managers.

In addition, the ESRB calls in a statement[10] for fund managers to use liquidity management tools, especially for funds that invest in less liquid assets or assets that become temporarily illiquid and have short redemption periods. This is because these tools could help mitigate the dynamics of first-mover advantage and the risk of distress selling.

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[9] Remarks from Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV), Berlin.
[9] https://www.bundesbank.de/resource/blob/847060/f947755bc93877a2ca3f33169b3175e1/mL/2020-finanzstabilitaetsbericht-data.pdf.
ation200514_ESRB_on_liquidity_risks_in_investment_funds~4a3972a25d.en.pdf.
[10] ESRB, Use of liquidity management tools by investment funds with exposures to less liquid assets, available under the following link: https://www.esrb.europa.eu/home/search/coronavirus/shared/pdf/esrb.publicstatement200514_on_the_use_of_liquidity_management_tools_by_investment_funds_with_exposures_to_less_liquid_assets.en.pdf.

2. Main results of ESMA's analyses in 2020 and the follow-up in 2022.

ESMA has published a report[11] analysing how funds investing in real estate and corporate bonds could react to future liquidity and valuation shocks. Most important findings from the COVID-19 crisis: **The funds exposed to corporate debt and real estate funds under review overall managed to adequately maintain their activities when facing redemption pressures and/or episodes of valuation uncertainty**. ESMA confirms this finding in its current press release[12] as the result of a further evaluation of a supervisory engagement with investment funds together with National Competent Authorities (NCAs). **The new results in 2022 show that the funds included in the scope of the analysis do not pose any substantial risk for financial stability.**

However, the report published in 2020 also points to shortcomings that need to be addressed to better prepare these funds for future market turbulence. In particular, the results should be interpreted with caution the redemption shock associated with the COVID-19 crisis was concentrated in a short period of time, amid significant intervention by governments and central banks to support the markets. In addition, some funds exhibited potential liquidity mismatches due to their potential liquidity mismatches that should be addressed. This is particularly the case for funds that invest in asset classes that are inherently illiquid and, at the same time, have a combination of high redemption frequency and short notice periods. Similarly, ESMA also points out that any concerns in the valuation of individual assets (particularly in real estate funds) have become apparent and the crisis could have a greater impact in the longer term. Furthermore, real estate funds do not often adopt special management tools. Against this background, fund managers authorised under the UCITS and AIFM Directives should increase their sensitivity to possible future adverse shocks that could lead to a deterioration in financial market liquidity and valuation uncertainty.

ESMA envisages the following five priority action areas for this purpose: (1) ongoing supervision of the alignment of the funds' investment strategy, liquidity profile and redemption policy, (2) ongoing supervision of liquidity risk assessment, (3) reporting on the liquidity profile of the funds, (4) increasing the availability and use of liquidity management tools, and (5) supervision of valuation processes in a context of valuation uncertainty. From a financial stability perspective, ESMA considers that these measures reduce the risk and the impact of collective selling by funds on the financial system. While the overall degree of compliance is satisfactory in the evaluation in 2022, ESMA also highlights some room for improvement and continued monitoring, especially on the liquidity stress testing and valuation of less liquid assets. Many NCAs reported that management companies were able to manage episodes of valuation uncertainty in March 2020 and that they have not identified any strong valuation issue for the funds in the scope of the exercise.

ESMA will continue to monitor this risk through regular assessments of the resilience of the fund sector. In addition, ESMA adopts the ESRB's recommendations on liquidity and leverage of funds and points out that under the UCITS and AIFMD all liquidity management tools should be made available.

[11] ESMA, Report, Recommendation of the European Systemic Risk Board (ESRB) on liquidity risk in investment funds, 12 November 2020, Ref. ESMA34-39-1119, available under the following link: https://www.esma.europa.eu/sites/default/files/library/esma34-39-1119-report_on_the_esrb_recommendation_on_liquidity_risks_in_funds.pdf.

[12] ESMA, press release, published on 30 March 2022, available under the following link: https://www.esma.europa.eu/press-news/esma-news/esma-and-ncas-find-room-improvement-in-funds%E2%80%99-liquidity-stress-testing.

3. German fund industry sets standards in using liquidity management tools in open-ended investment funds for retail investors.

Germany had already introduced holding and notice periods for open-ended real estate funds for retail investors years ago. Investors of open-ended retail real estate funds are not allowed to redeem their units on short notice: a minimum holding period of 24 months and a notice period of twelve months apply. In addition to the strict risk and liquidity management requirements of the AIFMD, these rules have proven to be tools for liquidity management not only during the COVID-19 crisis. Therefore, they are suitable to be used as a model for possible new EU regulation.

Alongside swing pricing and notice periods, redemption restrictions complement the existing toolbox for German open-ended funds investing in securities such as UCITS since March 2020. They serve to reduce systemic risks and protect investors, even though their rights may exceptionally be restricted in difficult market situations and help to avoid the use of the sharpest tool of all, fund closure. Institutional investors and fund-of-funds managers can also benefit from this.

Box 2
German practical guidance on gating

Together with the German banking industry, we have published a practical guidance[13] on the implementation of redemption restrictions (gating) for open-ended securities funds (especially UCITS). The guidance considers the entire process chain: from the management company to the depositary, to the custodians. The 'pro-rata solution with expiry of the residual order' developed for the German market is also permissible in France[14]. We consider this solution to be forward-looking, even though the Luxembourg supervisory authority[15] has not yet recognised this approach. In an intensive exchange with all parties involved, we have succeeded in setting up a pragmatic and, for the first time in the EU, automated process for the mass business of open-ended retail funds.

4. Liquidity transformation: BVI redemption analysis of German open-ended retail funds.

Analysis of the German open-ended retail investment fund market shows that investment management companies for the most part can manage liquidity risks to fulfil daily redemptions of fund units. Moreover, it is important to state that liquidity management depends on the types of assets, investors, investment strategies, markets, and possible national legal restrictions for using liquidity management tools.

In 2010, BVI assessed the issue of liquidity management for different kinds of securities funds such as equity, bond, or mixed funds. In 2015/2016, BVI broadened the approach to open-ended real estate funds. In a nutshell, evidence based on historical data showed that a liquidity ratio of 20 per cent can be considered as a robust prerequisite to fulfil redemption requests. These results (cf. overview of BVI redemption analysis, **Annex**) were obtained using on the following process:

The management company compares the liquidity ratio of the fund with determined changes of outflows based on historical BVI statistical data for the relevant fund's category. If the liquidity ratio of the fund is higher than the ratio of short-term outflows, in principle, the fund is protected from liquidity shortfalls.

[13] Available under the following link: https://www.bvi.de/fileadmin/user_upload/Regulierung/Branchenstandards/Praxisleitfaden_R%C3%BCcknahmebeschr%C3%A4nkung/211230_redemption_gates_practical_guidance_BVI-DK_final.pdf
[14] AMF, Conditions for setting up redemption gate mechanisms, Instruction DOC-2017-05, applicable from 15 March 2017, available under the following link: https://www.amf-france.org/en/regulation/policy/DOC-2017-05.
[15] CSSF, Circular IML 91/75 as amended by Circulars CSSF 05/177 and CSSF 18/697, Luxembourg, 21 January 1991, available under the following link: https://www.cssf.lu/wp-content/uploads/iml91_75.pdf.

However, if the liquidity ratio is lower than the ratio of short-term outflows, the management company should assess further aspects which imply further possibilities for action (such as analyses of the historical short-term outflows of the specific fund, analyses of the current unit holder structure, assessment of the expected future short term outflows, special borrowing facilities etc.).

- **Determination of the liquidity ratio of the fund:** As a first step, the management company assesses weather the assets in which the investment fund is invested are liquid or not, resp. evaluates the degree of liquidity. Then it determines the liquidity ratio of the fund as the ratio between the value of the liquid assets and the net asset value of the fund (NAV). This process is also in line with the current requirements of the AIFMD[16] according to which the manager is obliged to maintain a level of liquidity in the investment fund appropriate to its underlying obligations, based on an assessment of the relative liquidity of the investment fund's assets in the market, taking account of the time required for liquidation and the price or value at which those assets can be liquidated, and their sensitivity to other market risks or factors.

- **Outflows of the fund resulting from redemptions of units:** The assessed liquidity ratio of the fund then should be compared to the average redemption situation of the relevant fund category ascertained on a historical basis. For this purpose, BVI has conducted statistical evaluations based on the BVI investment fund statistics between 2003 and 2015 (based on over 7,100 retail funds and monthly cumulative changes of the funds' outflows).

As a result, significant redemptions of more than 20 percent of the NAV monthly occurred in 2 to 4 percent of all samples, depending on fund categories such as equity funds, bond funds and mixed funds. Many of these cases can be explained by exceptional market conditions or movements (e.g., times of crisis, collection of profits etc.). **After the financial crisis of 2008, management companies funded nearly all outflows without the use of additional liquidity management tools.**[17]

BVI subjected the biggest outflows identified for different fund types to analysis of another random sample[18] to gather insights regarding the liquidity needed daily. The significant outflows focus on very few days within a month (3.7 days on average) and occur selectively. They relate to occurrences which were known beforehand (e.g., money market funds which are used for liquidity management by the management company itself: foreseeable need of liquidity etc.). The liquidity needed daily in case of significant outflows amounted to 18 percent on average within the new random sample. These results support those gathered from the data collected monthly only.

In summary, when looking back to the post-crisis scenario after 2008, significant outflows first increased and later decreased slightly in open-ended retail investment funds, but not to the pre-crisis level. However, the average levels of significant net outflows did not change over time.

Over time, we can also see that open-ended retail funds with an investment focus on corporate bonds saw net outflows in March 2020. However, these have stabilised again overall.

[16] Cf. Article 47(1)(a) of the Delegated Regulation (EU) No 231/2013.
[17] The exceptions apply to 16 open-ended real estate funds (OREF) and 13 securities funds (e.g., funds of OREF, bond funds and former money market funds (MMF) featuring ABS and CDS).
[18] 67 cases.

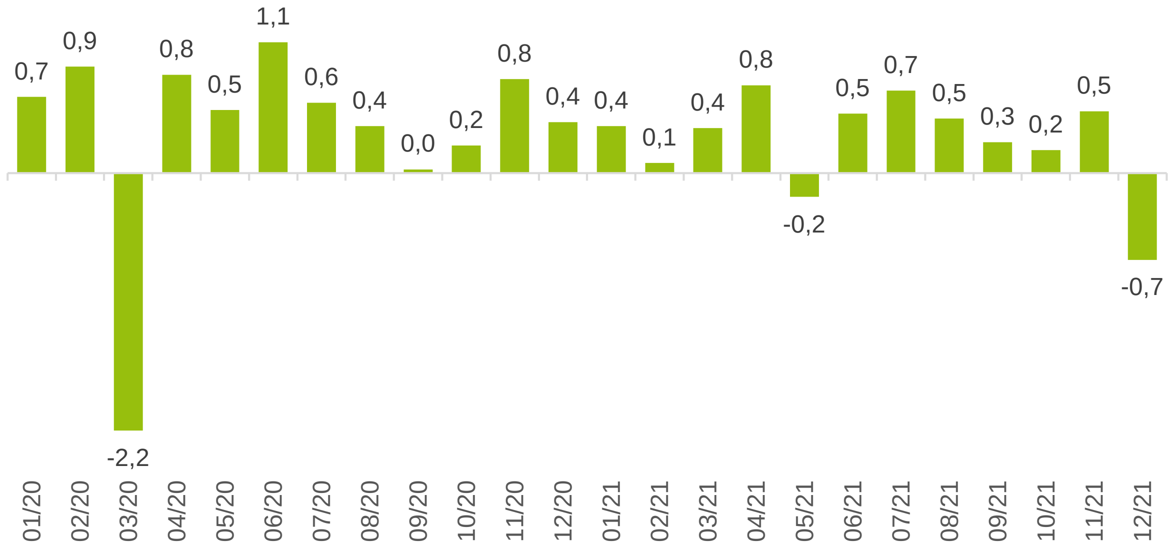


Figure 7: Net flows into corporate bond UCITS by German investors in EUR billions

Box 3
Proposal for a Consolidated Tape

As representatives of the German buy-side, we are pleased to see an ambitious push from the European Commission to put in a place a consolidated tape (CT) for market data which includes non-equity instruments (bonds). The functioning of the of market for non-equity instruments could benefit from the higher level of transparency. The CT could further strengthen the ability of both institutional investors and retail investors who trade via brokers to improve their trading process and best execution by providing them with immediate access to trading activity, liquidity, and price. The visibility of pre- and post-trade information means that investors would get to see prices and liquidity before they make decisions, ensuring that they can invest efficiently and cost-effectively and enabling them to achieve best execution. Thus, the role of the proposed CT and its impact on market liquidity should be considered in the future.

III. Data and analytical tools to enhance NBFI risk assessment and monitoring, including tools to analyse the behaviour of complex systems (e.g., network theory).

1. Management of inherent financial risks is an integral part of the internal risk control system.

Investment funds are financial products which inherently involve financial risks. While asset managers are obliged to inform their investors about investment strategies and risk profiles of investment funds according to strict transparency requirements including fees, redemption terms and suspension, the decision of the investor to invest in the fund is taken according to his own assessment of risk. To minimise the risks of the managed funds (including the risk of underperformance), strict risk management requirements including setting of limits and stress testing to the relevant financial risk of the managed funds apply. That process involves performing strict liquidity management including definition of liquidity risk limits and liquidity stress tests, in both normal and stressed market conditions, for each individual fund. It is of utmost importance that managing financial risks needs to be observed in the overall context of the individual fund's portfolio including the investment objective, the investment instrument and redemption terms. All these issues have a different effect on the riskiness of the funds' portfolio and give asset managers the flexibility to react depending on current and potential market conditions.

2. Operational risks of asset managers are already covered by own funds.

Own capital is only needed to ensure that the operational and potential professional liability risks are appropriately covered. That includes risks resulting from asset managers' activities such as damage or loss caused by staff members, events resulting from negligent actions, errors or omissions, failure to prevent, by means of adequate internal control systems or fraudulent behaviour within the organisation. It is clarified under the AIFMD that losses incurred because an investment has lost value as a result of adverse market conditions should not be qualified as a potential professional liability risk and, therefore, not be covered by own capital of the asset manager. It is required by law that money market funds shall not receive external support such as purchase by a third party of units or shares of the MMF to provide liquidity to the fund. Regarding the German asset management sector, our members provide us on a voluntary basis with data on losses deriving from operational risk occurrences.

BVI has been maintaining an operational risk database for its members since 2004 (so called BVI's Operational Risk Database statistics). At present, 39 companies participate in this project. They represent 2.4 trillion Euros in net fund assets and 85 per cent of the German market (measured by the funds launched in Germany according to the German Investment Act). The trigger was the operational risk catalogue established with Basel II in the banking sector, which BVI has adapted to the requirements of the fund industry to collect structured and standardised data on loss events. It helps to avoid or reduce future losses by providing information on the type and probability of certain loss events. The exchange across competitor boundaries has the advantage of drawing attention to risks that may not have been recognised by firms as such until now. The use of the database for operational risks is subject to high security precautions: Documenting loss events in the database is limited to a few authorised addresses per participating company. These addresses only have access to the data of their own company and receive quarterly anonymised evaluations from BVI on all loss events of all participants.

The evaluation of our statistics considers loss events from an amount of EUR 1,000. The data is collected qualitatively and quantitatively and covers the topics of 'organisation' (nine business areas/organisational units), 'causes' and 'events'. The latter two are divided into three hierarchical levels with a total of 49 and 92 characteristics respectively.

According to our experience based on the BVI's Operational Risk Database statistics, operational risks materialising in our membership amount to about EUR 78,000 on average per year and case and over a period of the least five years. The highest reported individual loss in the period under consideration was EUR 5.1 million (from 2019, based on an accounting error). The vast majority of events is attributed to personnel (in general, staff errors were the cause of four out of five claims in a management company). This includes, for example, incorrect orders or controls. Other losses were process-related and technical causes.

These data show that the existing own fund requirements are appropriate to cover operational risks that could occur in providing asset management and investment services. Therefore, the own fund requirements of the UCITS Directive and the AIFMD are already designed to cover such losses. Moreover, in a context of continued investor inflows and growth of the asset management sector, it is self-explanatory that growth of professional liability risks is continuing to be proportionate. The increase of own capital of asset managers, observed in the current practice, is therefore due to cover increased professional liability risk resulting not least because of much stricter organisational requirements for asset managers established after the financial crisis.

Damage distribution by type

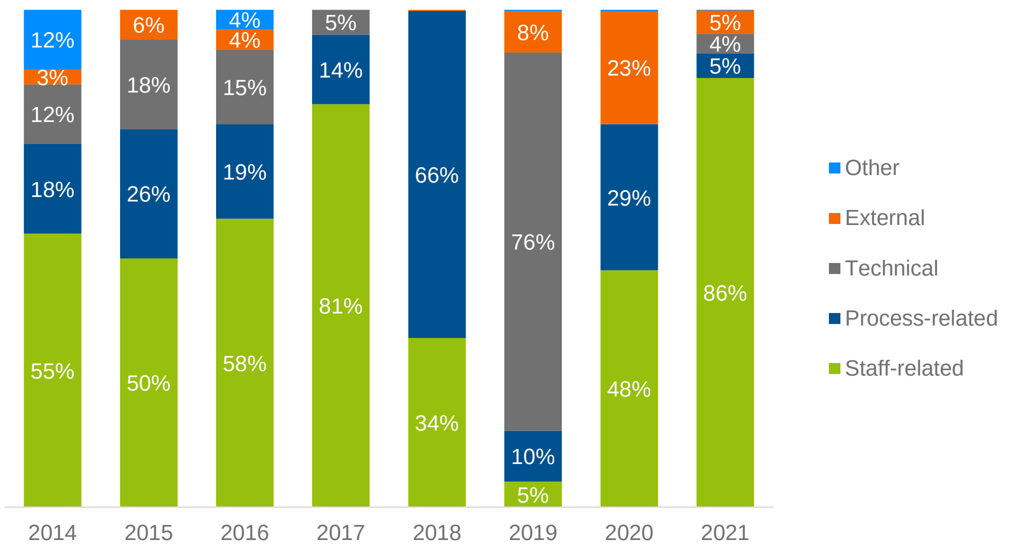


Figure 8: BVI Operational Risk Database statistics; data collected by type.

Damage distribution by organisational units

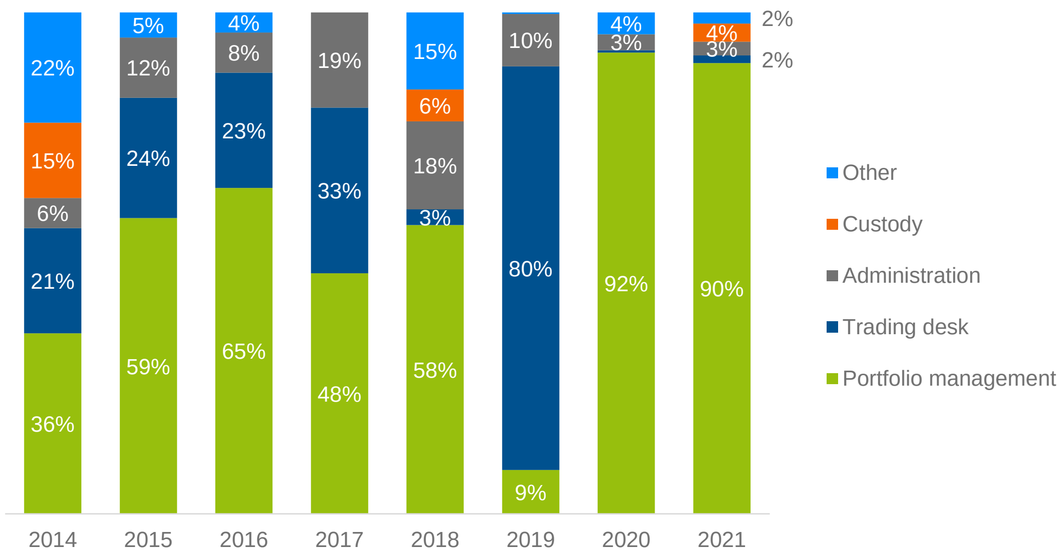


Figure 9: BVI Operational Risk Database statistics; data collected by organisational units.

IV. The effects and policy implications of the extraordinary interventions by central banks and other authorities to stabilise financial markets during the March 2020 turmoil.

1. Reduction of financial stress through government and central bank action

In general, the pandemic represented an enormous external shock to the economy. Broad-based lockdowns represented historically unprecedented events, and there was no empirical data to draw on as to what impact the imposed stop of production facilities could have on the economy and financial market stability. Asset managers were also operating under severe uncertainty, in particular, regarding the extraordinary interventions by central banks and other authorities to stabilise financial markets during the March 2020 turmoil. In purely practical terms, this has already been measured by the fact that we, as we as the German fund association, have offered our members a daily exchange of information on the occasion of and during the tense market situation. In this way, we ensured that our members were able to exchange information on market developments, current initiatives in connection with the COVID-19 virus as well as any need for action as a result of further market changes with a significant impact on fund liquidity and related measures. In addition, this exchange also served to be able to act promptly and effectively in discussions with the supervisory authorities and third parties.

Central banks and governments reacted swiftly to the shock: Government's priority was to preserve the supply side of the economy and avoid mass bankruptcies (e.g., via state guarantees for companies that suffered most). Central banks, notably the ECB, provided as much liquidity as necessary to avoid a liquidity squeeze. Moreover, asset purchase programs were expanded to preserve favourable financing conditions to help the economy. For instance, financial market participants benefitted from the Pandemic Emergency Purchase Programme (PEPP), which started with 750 billion euro at the end of March 2020 and was upgraded twice. The introduction of PEPP was a milestone in keeping financial stress at an acceptable level (see figure 10). In this way, central banks avoided potential further increases in financial stress and long-lasting damage for investment funds and other market participants.

One particularly important aspect for investment funds was the extension of the range of eligible securities to non-financial commercial paper, so that all money market securities with a sufficient credit rating were eligible for purchase under the PEPP. This helped to alleviate market tensions in a very volatile environment. In principle, there was no provision for central banks to purchase eligible securities held by investment funds directly. However, in practice, there was the possibility of banks (as ECB counterparties) acquiring eligible securities held by investment funds, which were then transferred to central banks under the programme.

Figure 10: ECB Financial Conditions Index since the beginning of the pandemic (vertical axis inverted). The FCI includes money, bond market, oil price and exchange rate developments. A falling FCI implies tightening financial conditions. Source: ECB, DWS

The beneficial effect of reduced uncertainty and regained trust in markets was also reflected in the behaviour of German retail fund investors. Despite plummeting stock prices and substantial net outflows in March 2020, they started to invest again as early as April. By June, YTD net inflows across all retail funds turned positive again. This was even true for especially impacted asset classes, such as corporate bond funds (see figure 7). As noted above, due to their role in the financial system, 'Spezialfonds' were generally impacted little by financial stress at the beginning of the COVID-19 pandemic.

2. Short selling bans with little impact

National supervisory authorities could issue temporary short selling bans in individual cases if they consider market integrity or market confidence to be threatened. In March 2020, some European NCAs prohibited the short selling of European Equities to mitigate downward pressure on equity prices. For instance, the French regulator AMF issued a short selling ban on all shares traded in Paris and extended it to one month. Belgium, Spain, and Austria also had a one-month ban on short selling, while in Italy the ban applied for three months. However, as financial instruments related to stock indices like Euro STOXX 50 or MSCI Europe (and therefore a substantial part of EU equity market capitalisation) were exempted from the short selling prohibitions, the direct impact of the short selling ban on investment funds was negligible. This is especially the case as short selling in general is not permitted directly in UCITS/AIFs and can only be replicated to some extent via derivative positions.

As a precautionary measure, the European Securities and Markets Authority ESMA had lowered the reporting thresholds for the mandatory reporting of short selling positions. Investors were required to report net short positions to their national supervisory authorities from 0.1 percent instead of the previous 0.2 percent. This was a suitable measure for regulators to get an overview at European level and, if necessary, to take further steps. The EU-wide lowering of the threshold of mandatory regulatory reporting of net short selling positions resulted in an increase of such notifications but did not impact the asset allocation of investment funds.

In summary, we are firmly opposed to a general ban on short selling. Temporary interventions in the market would have to suffice. In our view, a short-selling ban only makes sense for certain companies and sectors – and even then, its effectiveness is not clear. The national supervisory authorities can already impose short-selling bans on a case-by-case basis and if necessary, with the mandatory reporting of short selling positions with enabling the supervisory authorities to intervene at an early stage. However, greater coordination of the supervisory authorities with the aim of harmonising national measures and thus simplifying the handling of national short-selling bans is desirable.

3. Investment funds in search of yields

The ECB noted in its Financial Stability Review of November 2021: "*The duration exposure of non-banks has continued to rise, rendering their portfolios vulnerable to interest rate shocks. In their search for yield, non-banks have increased the duration of their debt securities portfolios over recent years. In the absence of hedging strategies, a 1 percentage point rise in yields would lead to bond valuation losses equivalent to 7.5% and 9% of the total fixed income portfolio of Investment Funds and ICPFs (Insurance corporations and pension funds) respectively.*" The asset purchases also reduce the sheer availability of investment-grade bonds. At the end of March 2021, according to estimates by the German 'Finanzagentur', 32 percent of the outstanding federal bonds were in the hands of Bundesbank, which is active in the German bond market on behalf of the ECB.[19]

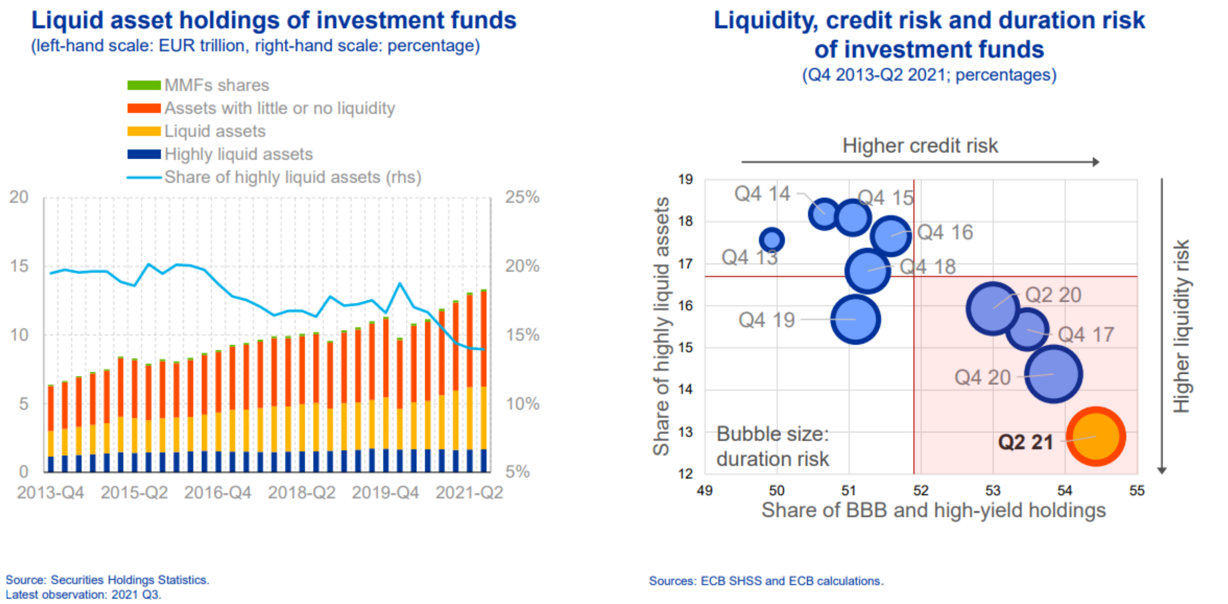


Figure 11: Source: ECB Financial Stability Review, November 2021

This development is of course also a side effect of the even more expansive monetary policy during the COVID-19 pandemic. In practice, we have indeed observed shifts in euro government bonds. Against the background of the investment volume of German special funds in euro government bonds, however, we consider this shift to be extremely moderate. Incidentally, the behaviour of special fund investors is often regulatory in nature or a reaction to overall economic developments, such as the low interest rate environment. The fact that special funds also (have to) take higher risks in the bond sector in such an environment is therefore not surprising.

[19] Frankfurter Allgemeine, Immer mehr Bundesanleihen in staatlichen Händen, updated 4 August 2021, available under the following link: https://www.faz.net/aktuell/finanzen/immer-mehr-bundesanleihen-in-staatlichen-haenden-17468024.html.

5. Impact of corporate bond downgrades

The ESRB feared a wave of credit downgrades in the corporate bond sector due to the systemic increase in credit risk during the COVID-19 crisis. This would have been particularly problematic for issuers that lose their investment grade status. The focus here was on index-tracking funds, which quickly sell bonds of these issuers when they are removed from the reference basket. Other investment funds, banks, pension funds and insurers might decide or be forced to sell - for example because of their risk limits, because of their investment mandates or to protect their solvency positions. Such sales could lead to large spread widenings given the limited absorptive capacity of the high-yield market, which could result in market valuation losses for investors and higher funding costs for companies. The ESRB therefore suggested, from a macroprudential perspective, to ensure that the impact of these credit downgrades is well understood and does not disrupt the functioning of financial markets, to minimise the negative impact on the real economy. The ESRB has summarised details in a note[20] and decided to coordinate a top-down analysis with EU supervisors and the ECB to assess the impact of a common scenario of large-scale downgrades across all parts of the financial sector.

Box 4
Use of credit ratings by asset managers

Both AIFs and UCITS are required by EU regulation not to rely exclusively on credit ratings. However, credit ratings are an important input factor in internal management processes, not the least because of (regulated) investor requirements. Based on their responses, we can discern the following broad use cases for the use of credit ratings data within our membership of regulated fund management companies:

Fund portfolio management: Credit ratings are used in the allocation and management of assets in accordance with the set of investment strategy of the fund. Some members use weighted or average rating scores based on the available S&P, Moody's und Fitch ratings of the issue or if this is information is lacking the rating of the issuer/counterparty/deposit taker/guarantor of an issue. This 'second-best' approach is supported by banking regulation as it enables consistent ratings view across the portfolio.

Fund risk management: Fund management companies are required to implement a holistic risk management process which implicitly requires the use of ratings in at least two areas. Firstly, ratings are input factors in the internal credit assessment process, especially on issuers which are not covered in detail by internal research departments. Additional monitoring is required at times of market stress such as COVID-19 to correctly anticipate 'fallen angel' (downgrade below investment grade) situations or other rating actions. Ratings are also relevant input factors for the determination of market risk metrics, e.g., the fixing of interest rate curves.

Investment Controlling: The controlling activities comprise the monitoring of UCITS and AIF investment limits in terms of eligible assets and risk diversification as set in the German Capital Investment Code (KAGB) or contract-based limits agreed with institutional investors. Banking investors require a look-through approach on the credit risk weightings of the fund assets according to the European banking capital regulation (CRR) based on the short- or long-term rating of the issue which in the end determine the bank's capital requirement on its fund investments. Additionally, liquidity coverage ratio (LCR) requirements allow for the use of certain instruments only based on their ratings. The calculation can usually be done by the fund as it is a prerequisite for the correct implementation of the contractually agreed investment strategy. According to the German national competent authority BaFin supervisory risk management guidelines for bank (MaRisk) capital must be held to cover for certain (spread) risks which must be quantified based on the available ratings. Similar requirements exist in case of insurance investors investing in regulated investment funds under EU Solvency 2 and implementing German law (VAG). Insurers need the ratings

[20] ESRB, Issues note on liquidity in the corporate bond and commercial paper markets, the procyclical impact of downgrades and implications for asset managers and insurers, May 2020, available under the following link: https://www.esrb.europa.eu/pub/pdf/reports/esrb.report200514_issues_note~ff7df26b93.en.pdf.

on the bond allocation of both retail (e.g., UCITS) as well as the mainstay of the German fund industry, i.e., the institutional funds (‘Spezialfonds’). Not rated investments are only allowed under a de-minimis approach. For Solvency 2 purposes the credit ratings must be converted to numerical ‘credit quality steps’(CQS). The required stress-test scenarios need to be calibrated based on the mentioned CQS. Securitisations require at least two issue long-term ratings to allow for the calculation of the relevant credit quality steps.

Reporting to investors and supervisory agencies (regulatory reporting – RR): Most fund managers provide their banking and insurance investors with reports to help them to implement their regulatory reporting obligations under CRR and Solvency 2. Such reports usually provide information on the respective portfolio, including individual ratings and/or CQS, as well as other aggregated data on a weekly, monthly, quarterly, or annual basis. In case of fund holdings reporting to insurance companies there is a standard industry template called ‘TPT’ made available by the FinDatEx platform[21]. The use of TPT and all other FinDatEx templates is not compulsory, and they are provided to the industry free of charge and free of any intellectual property rights.

FinDatEx (Financial Data Exchange Templates) is a joint structure established by representatives of the European Financial services sector industry with the view to coordinate, organise and carry out standardisation work to facilitate the exchange of data between stakeholders in application of European Financial markets legislation, such as MiFID II, PRIIPs and Solvency 2. The joint FinDatEx structure was established by the European Fund and Asset Management Association (EFAMA), the European Banking Federation (EBF), Insurance Europe, the European Savings and Retail Banking Group (ESBG), the European Association of Cooperative Banks (EACB) and the European Structured Investment Products Association (EUSIPA). In October 2019, the European Association of Public Banks (EAPB) joined FinDatEx, followed by Pensions Europe in April 2021.

Regulatory reporting requirements on funds and fund managers require ratings information as input factors on a credit quality view on the portfolio based on various asset types/classes. Ratings are included in investor reporting to inform them inter alia on the portfolios credit risk structure. Some asset managers offer access to a secure database where institutional investors get access to and may download the reports with respect to their portfolio fund data. It should be stressed that portfolio holdings reporting covers only a specific number of rated issues or issuers and never the full rating universe. Therefore, it should be clear that only a limited amount of individual ratings/CQS is shared for information purposes with clients but never for commercially driven redistribution purposes.

V. Policy tools and approaches that can be used by non-bank financial institutions and regulatory authorities to address systemic risk.

We consider investment funds to diminish systemic risks in general as they can balance between investors who want to divest and those who want to invest in a financial market. In the absence of investment funds these investors would have to access the markets directly. If regulators introduce too detailed and restrictive additional rules for investment funds, asset managers would be forced to act in a similar way during a possible crisis. This could lead to an amplification of the crisis rather than mitigation. Therefore, we think that a very detailed regulation approach could also increase systemic risks. Consequently, we would like to stress the following tools and approaches:

1. Narrowing down the range of eligible assets is not a commensurate measure.

The strict UCITS requirements, comprising portfolio diversification and eligibility criteria to certain types of assets, have made the product successful on European and global markets. On the occasion of a regular review of the specifications, the entire European fund regulatory framework (AIFMD and UCITS Directive) is currently being revised.[22] The EU Commission has already confirmed that the regulations

[21] https://findatex.eu/.
[22] https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2021)721&lang=en.

are effective overall and only require specific improvements in order to further strengthen investor protection and to reduce any inefficiencies and resulting inconsistent supervisory practices.[23] European and additional national rules provide strong principles concerning what instruments an investment fund can invest in. However, the eligibility of an asset must be assessed not only with regard to the legal requirements, but also other aspects such as strict risk management processes including liquidity management and contingency planning. Therefore, narrowing down the range of eligible assets is not a commensurate measure to address any perceived shortcomings identified in individual cases with internal and external governance failures on fulfilling the strict framework for asset managers as a whole. Instead, we are in favour of further developing the governance requirements while retaining the flexibility in terms of eligible exposures. Such an approach represents the best way forward to eliminate potential deficiencies relating to investor protection which may be threatened not by the range of eligible assets, but by inadequate treatment of related risks. In that context, we strongly support IOSCO's call[24] and the European Commission's statement[25] that the responsibility for supervising the correct application of these rules including effective and consistent implementation on liquidity risk management rests with the national competent authorities.

In this context, it is important to highlight that there is no need for a global and common guidance related to open-ended funds' investment in illiquid assets such as whether certain asset classes and investment strategies may not be suitable for an open-ended fund structure as well as an abstract classification of the liquidity of asset categories. FSB and IOSCO should avoid setting too strict binding requirements on liquidity analysis of assets. Otherwise, we see the danger that the management company might not be able to react to changes in the market. Such requirements would also pose administrative burdens for the management companies. Therefore, it is important that liquidity management should be based on a case-by-case assessment. In this context, also liquidity buffers should not be specified. These tend to be counterproductive and are detrimental to performance of investment funds and thus to investors. This applies even more if they must be invested in fixed-term deposits for which negative interest rates might still have to be paid in the current low-interest phase.

2. Financial stability supervisors must operationalise their macro-prudential toolkit.

Competent authorities already facilitate analysis of the risk impact of investment funds in the European Union. In particular, information of the risk profile of alternative investment funds gathered by competent authorities are shared with ESMA and the ESRB so as to facilitate a collective analysis of the impact of the risk profile (including leverage and liquidity) of investment funds on the financial system in the Union as well as a common response to potential risks. These measures ensure that competent authorities are able to quickly intervene on a case-by-case basis in case of identified potential risks to financial stability or to the functioning of financial markets. We therefore welcome ESMA's insights about their analyses of investment funds[26]: As a main outcome, the fund industry is resilient and is able to absorb economic shocks. We also welcome that ESMA has already started establishing guidance to operationalising existing tools to address risks and to identify the effect of macro-systemic shocks affecting the economy as a whole. These figures should be used by all financial stability bodies such as the ESRB and the ECB. That involves the need for country-by-country analyses and the need for further strengthening data exchange between supervisory authorities and financial stability bodies.

[23] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0232&rid=7.
[24] https://www.iosco.org/news/pdf/IOSCONEWS539.pdf.
[25] https://www.europarl.europa.eu/RegData/questions/reponses_qe/2019/002510/P9_RE(2019)002510_EN.pdf.
[26] ESMA Economic Report, Stress simulation for investment funds, 2019, Ref. ESMA50-164-2458, available under the following link: https://www.esma.europa.eu/sites/default/files/library/esma50-164-2458_stresi_report.pdf.

3. Liquidity management tools should be made available to all jurisdictions.

Open-ended funds have at their disposal different tools for dealing with liquidity shortages, including the possibility to suspend redemptions. The wide variety of liquidity management tools across jurisdictions such as redemption fees, gates, redemption restrictions, redemption in kind, swing pricing, side pockets or notice periods will help to reduce herding effects by the potential use of a limited range of such tools. However, legislators have to close the gap to make all liquidity tools set out in IOSCO's report[27] available to funds in instances of stressed market conditions. That involves a need for a common understanding based on general principles on EU-level on how to use such tools. In any case, it must be at the discretion of the manager of the funds which tools they want to use because of very different fund types and structures. Deployed appropriately, their use or possible use can create a sense of constructive ambiguity amongst individual market participants which can help to encourage better market discipline in stressed situations. As a last resort, redemption should be suspended under the precondition that no other alternative is available under the fund rules or other potential liquidity management tools are considered inappropriate. Especially in cross-border fund business, it is important to ensure a consistent approach to supervisory rules on liquidity management at EU level. National special paths should be avoided.

4. There is a need for a common understanding on how to calculate leverage in investment funds.

Leverage in investment funds means methods such as the use of derivatives, borrowing of cash or securities which might, but not necessarily has to increase the ratio of the fund's market exposure over its net asset value. There is a wide variety of funds and fund strategies in different jurisdictions and market structures which allow different methods to increase leverage. In this respect, the use of leverage is not a risk as such. According to the AIFMD, managers of AIFs are required to set leverage limits for the funds they manage, to monitor the leverage and to disclose information regarding the overall level of leverage employed vis-à-vis investors and competent authorities. UCITS are legally restricted in using leverage methods such as use of derivatives and borrowing agreements. In addition, national legal requirements could limit the use of leverage in certain funds. Even if the acceptable methods by which the fund manager could increase the fund's exposure differ among investment funds in order to protect investors, the metric for the calculation of the market exposure should be based, in principle, on the same method for both UCITS and AIFs. Such an approach would efficiently ensure a sustainable and meaningful understanding and monitoring of leverage for financial stability purposes. However, it is important to highlight that the use of leverage by investment funds is limited within the European market, with the notable exception of hedge funds. As mentioned above, the exposure of nearly all German 'Spezialfonds' relating to borrowing arrangements and derivative instruments (with hedging and netting) does not exceed leverage on a substantial basis (three times the fund's net asset value). Moreover, all German 'Spezialfonds' observe the UCITS limit on global exposure to derivative instruments.

[27] IOSCO, Recommendations for Liquidity Risk Management for Collective Investment Schemes, Final Report, FR01/2018, February 2018, available under the following link: https://www.iosco.org/library/pubdocs/pdf/IOSCOPD590.pdf.

5. There is a need for a single regulatory reporting mechanism which would reduce operational effort and burden for asset managers as well as supervisory authorities.

For a common understanding of financial stability risks and in order to avoid excessive burdens for cross border activities of asset managers, the main challenge is to agree at least on harmonised data reporting and exchange standards with the industry and supervisory bodies to enable better understanding and supervision. This important task should not be left solely to national authorities as it is currently required under the UCITS Directive. In any case, it is important that all managers of funds report such data in a uniform way. Proposals for a new harmonised reporting such as a UCITS reporting need to be analysed carefully in avoiding of double reports and in closing data gaps. In particular, removal of regulatory obstacles which hinder the efficient functioning of the capital markets should be considered an overarching priority. For financial stability purposes it is necessary to define at least on EU level which kind of data and in which frequency national competent authorities should collect data such as data on leverage and liquidity risks. However, it could be helpful to set a reporting threshold for small-sized funds (such as funds whose assets under management do not exceed EUR 500 million) and funds with low leverage. Such a threshold would ensure that information relating to the build-up of financial stability risk is collected throughout the EU in a consistent way and provides certainty to all investment funds. However, competent authorities may request additional information where necessary for the effective monitoring of systemic risks.

Box 5
In the long-lasting debate on the potential contribution of the NBFI to financial stability no convincing case could be made for a prominent and negative role of traditional long-only investment funds.

Literature on the contribution of investment funds to systemic risk shows no consensus on the way of imposing such risks to the financial system and on the practical validity of possible transmission channels and not even on the measurement of the systemicness of funds. Modelling the vulnerability of investment funds on an individual and aggregate level via stress tests has shown two results[28]: Firstly, the vulnerability to fire-sales is relatively small compared to the banking sector. Secondly, systemic risks among funds are unlikely to be of major concern. Therefore, regulatory authorities should lay stress on a better understanding and the structural vulnerabilities of the liquidity transformation of the funds. The balancing of individual funds' liquidity profile, the availability of a suitable set of liquidity management tools and its professional management by the management company is of utmost importance for further mitigation of systemic risks.

[28] Fricke, Christoph/Fricke, Daniel: Vulnerable Asset Management? The Case of Mutual Funds, Bundesbank Discussion Paper No 32/2017.

Liquidity Management

LIQUIDITY MANAGEMENT

General definition of „liquidity risk“ of an open-ended investment fund:

“The risk that a position in the fund’s portfolio cannot be sold, liquidated or closed at limited cost in an adequately short time frame and that the ability of the fund to repurchase or redeem its units at the request of an investor at any time is thereby compromised.”

(cf. Article 3 No 8 of the Directive 2010/43/EU of 1 July 2010 implementing the UCITS Directive).

- **How liquid are the assets of the fund‘s portfolio?**
- **Is there enough liquidity to fulfil any payment obligations on behalf of the fund?**
- **Is there enough liquidity to fulfil any requests of investors to repurchase or redeem its units?**

➢ **Obligation to implement a liquidity management process**

(According to the AIFMD and the UCITS Directive, the management company is already obliged to implement such a process)

LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

Redemption analysis in the following categories of retail funds:

- Equity funds
- Bond funds
- Balanced funds
- Property funds

- **Filter for gross & net redemption analysis**
  - Years 2003 – 2015 separately vs. cumulated periods 2003-2006; 2007-2009; 2010-2015
  - Institutional funds included
    - Funds with minimum investment amount of 20 Mln. Euro
    - Funds with minimum asset value of 1 Mln. Euro
    - Funds with attribute “institutional”
  - Last month redemptions (capital payouts) before liquidation excluded

Annex

LIQUIDITY MANAGEMENT
Redemption analysis: Results in BVI retail funds

Gross redemption frequencies* **exceeding** 20% of total net assets:

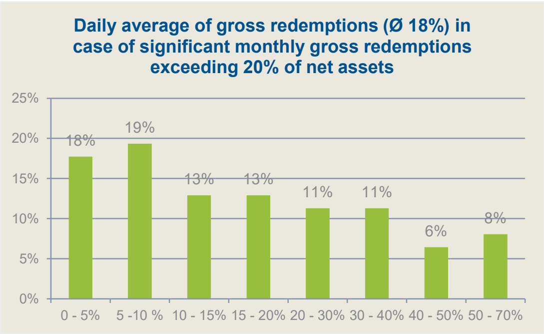
Fund Type	Period 2003 – 2006 Frequency	Period 2007 – 2009 Frequency	Period 2010 – 2015 Frequency
Equity funds	2,98%	4,97%	4,96%
Bond funds	3,34%	6,14%	5,34%
Balanced funds	1,11%	2,26%	2,21%
Property funds	0,56%	1,45%	2,00%

*based on monthly data

LIQUIDITY MANAGEMENT
Redemption analysis: No significant constraints by using monthly data

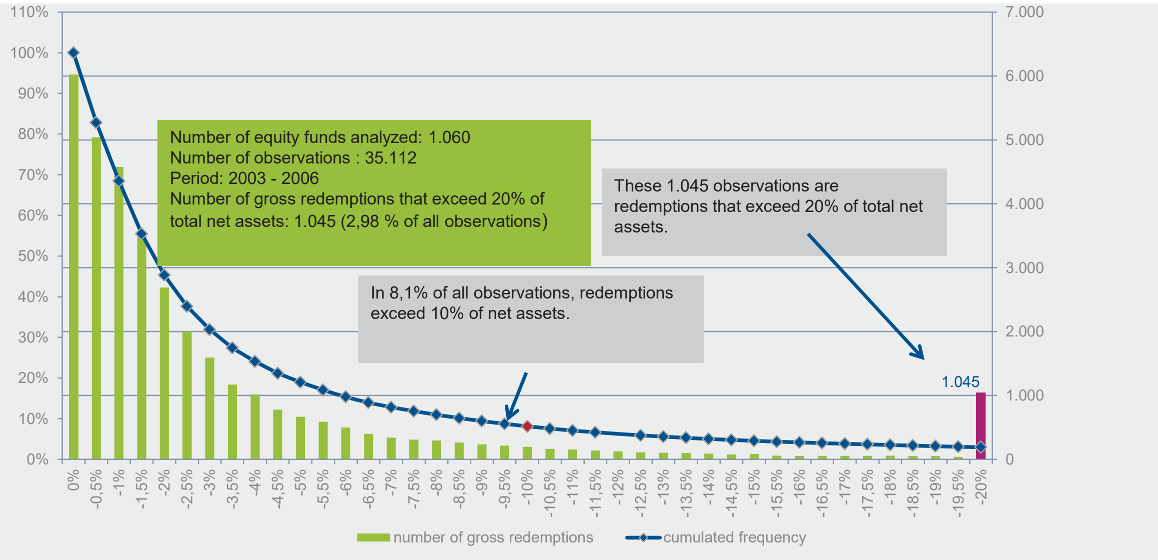
Among significant monthly gross redemptions exceeding 20% of net assets, BVI members were asked for an additional survey based on day-to-day data:

- In 63% of the cases analyzed, daily gross redemptions were below the 20% threshold of net assets, mostly covering an interval of up to 3 days within critical months. In other words, the pattern was for example 1 day of gross sales of 20%, or 3 days of gross sales of about 7%.
- On average, we found daily gross redemptions amounting 18% of net assets.
- Where daily gross redemptions were larger than 20% of net assets, this was part of an coordinated process, e.g. in institutional funds with a few known investors, funds of funds, MMF used for the purpose of liquidity management within a company, or scheduled, planned liquidations.



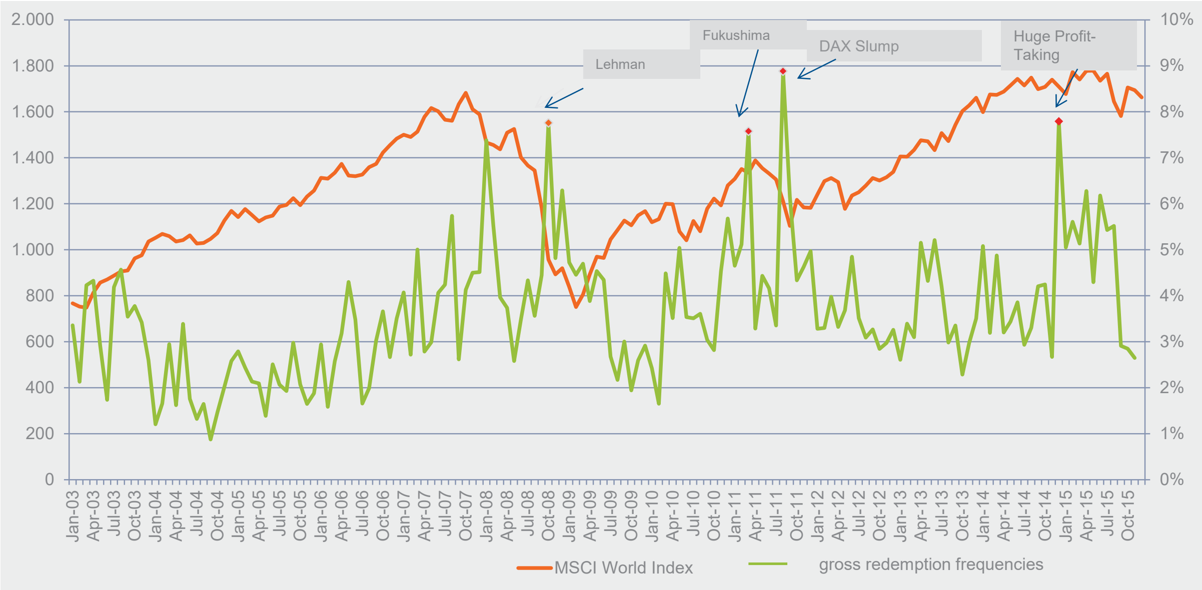
LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

Gross redemptions frequency distribution in equity funds



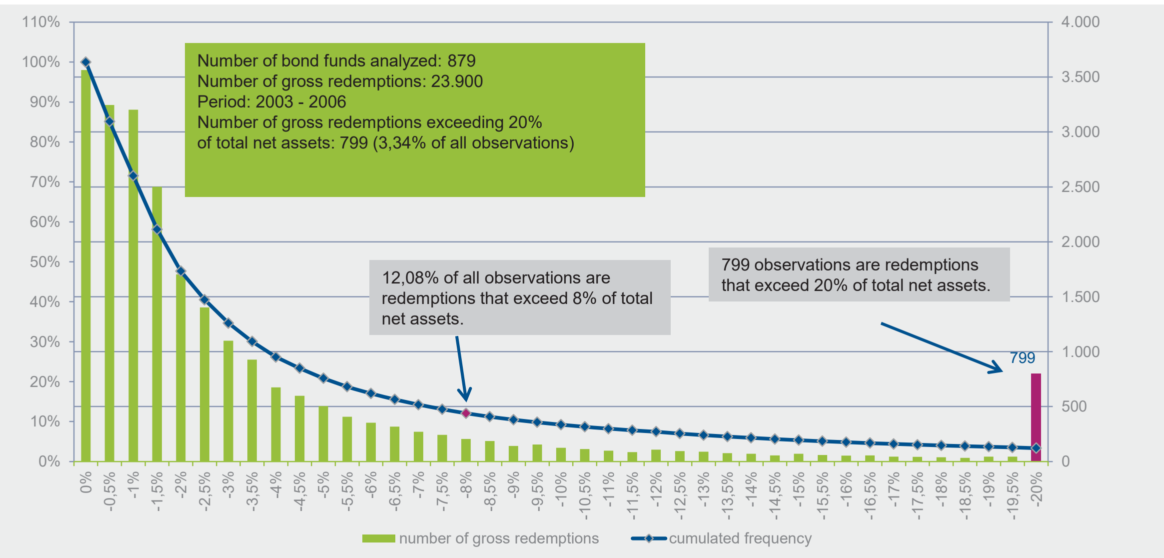
LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

Gross redemptions frequencies exceeding 20% of net assets in equity funds vs. MSCI World Index



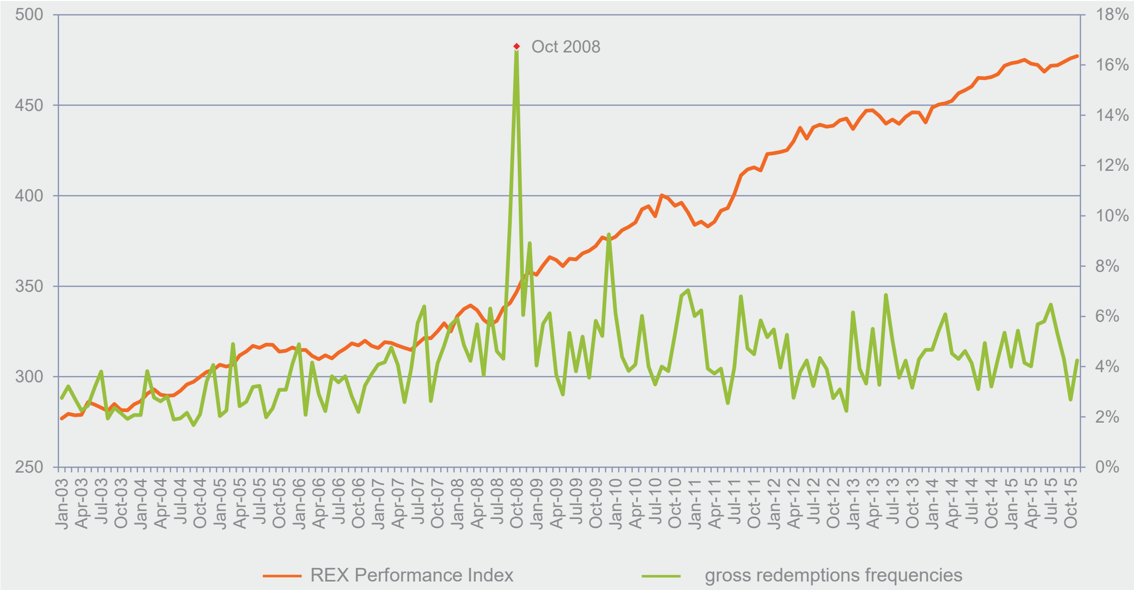
LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

Gross redemption frequencies distribution in bond funds



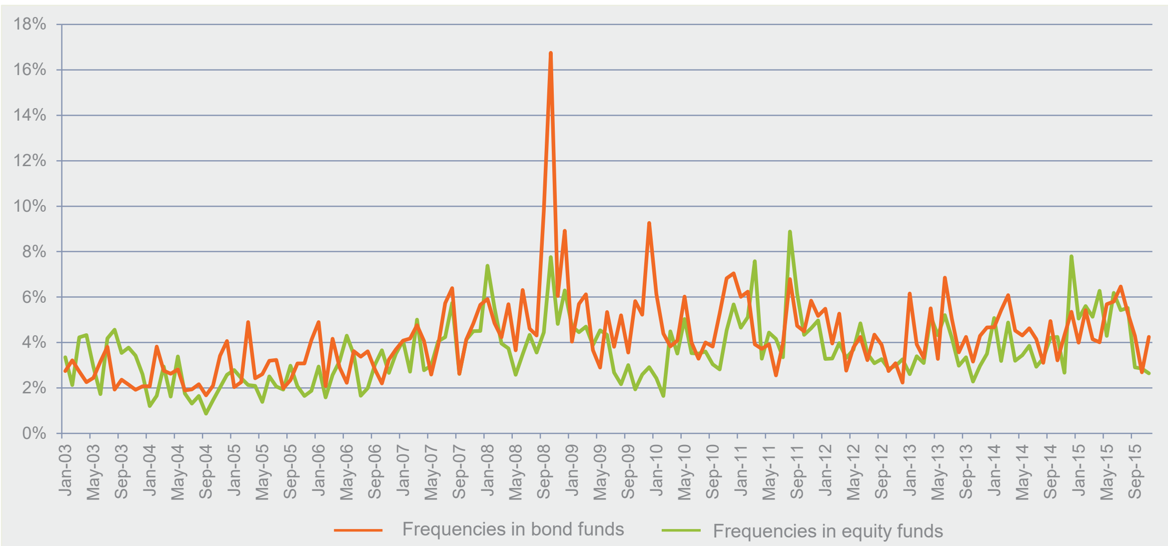
LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

Gross redemption distribution in bond funds vs. REX Performance Index



LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

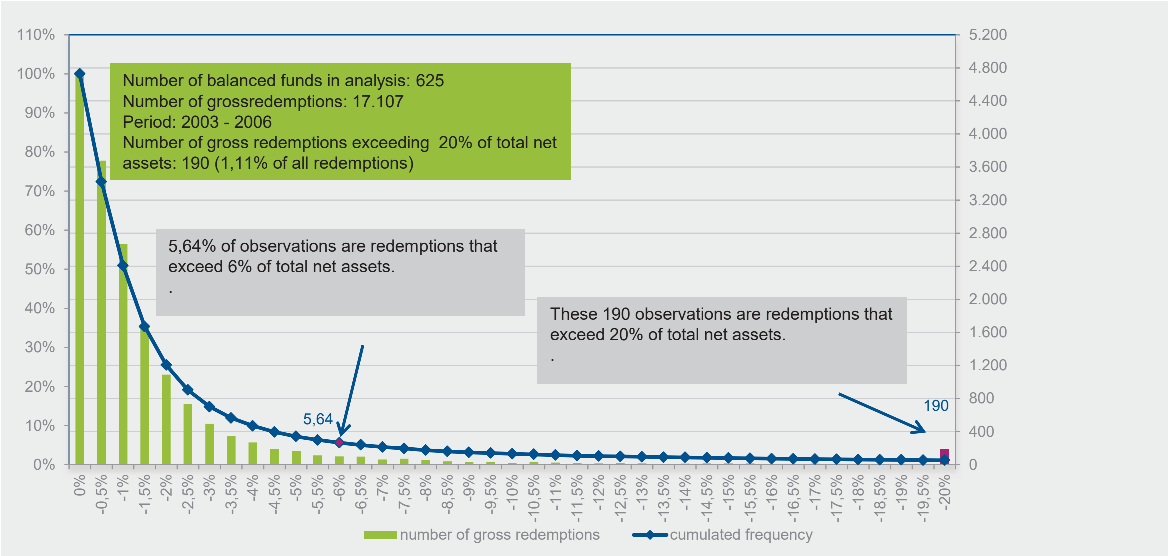
Comparison of gross redemption distribution exceeding 20% of net assets in bond and equity funds



LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

BVI

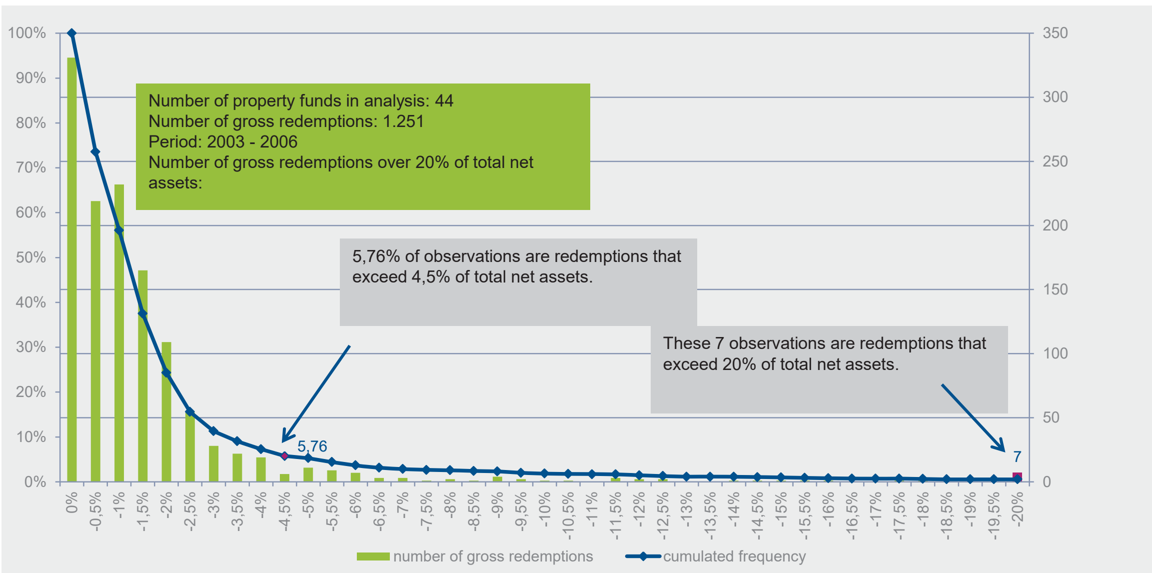
Gross redemption frequency distribution in balanced funds



LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

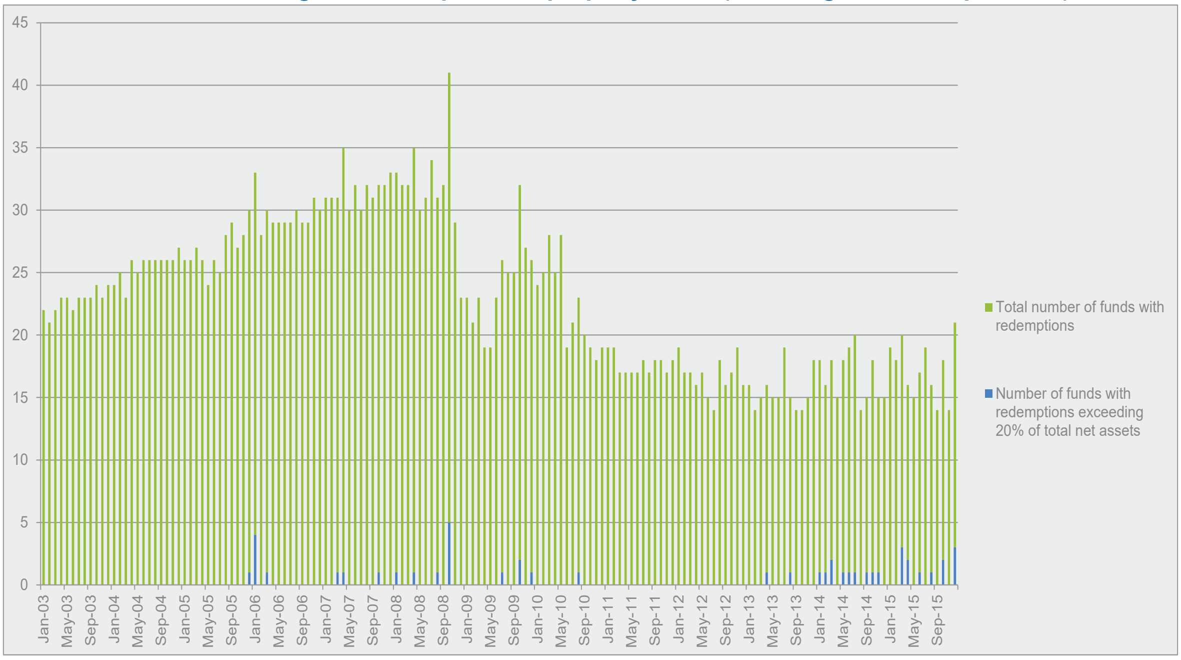
BVI

Gross redemption frequencies distribution in property funds



LIQUIDITY MANAGEMENT
Redemption analysis based on monthly data of BVI retail funds

Distribution of gross redemptions in property funds (including funds in liquidation)



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