

DEBT FUNDS

– FINANCING ALTERNATIVE IN TIMES OF AMPLE MONETARY ACCOMMODATION

Financial Research
September 2018



Management Summary

1.

The European debt fund market again recorded brisk growth in 2017 and was able to retain the previous years' momentum. After exceeding the EUR 100 billion threshold for the first time in 2016, the cumulative debt fund volume reached a new historic high of EUR 165.6 billion in 2017. This development was driven in particular by the direct lending funds, which alone contributed half to the growth of the overall market. Starting from a cumulative volume of EUR 60.0 billion in 2016, the European direct lending market grew by a third to EUR 80.2 billion within a year. This enabled the direct lending segment to further extend its lead over real estate funds last year, although this asset class also continued to develop dynamically. Here, the cumulative fund volume rose from EUR 47.6 (2016) to 59.1 billion (2017). Equally buoyant was growth in infrastructure funds, whose market volume rose to EUR 26.3 billion.

2.

The US market continues to be dominated by the asset class of real estate funds. In this segment, cumulative volume climbed to EUR 286.8 billion (2017). Thus, last year the market was more than twice as large as five years ago and almost five times as large as its European counterpart. As in Europe, direct lending funds have become significantly more relevant in recent years. After the cumulative volume of US direct lending funds had already doubled between 2013 and 2016 from EUR 53.2 billion to EUR 102.7 billion, the market again recorded robust growth last year, reaching EUR 136.0 billion.

3.

A comparison of the debt funds launched in Europe between 2007 and 2017 shows attractive returns for all three asset classes considered. With an average return of 9.4%, real estate debt funds are well above the 7.1% of direct lending funds, but they show a more volatile return profile. The standard deviation for infrastructure loan funds is at a slightly higher level, but with a significantly higher average return of 11.4%.

Contact

Dr. Benjamin Mohr
Chief Economist

Creditreform Rating
Hellersbergstrasse 11
41460 Neuss

B.Mohr@creditreform-rating.de

4.

The outlook for European debt funds remains positive. Thus, the favorable economic conditions should continue to prevail in the medium term. At the same time, we expect only an extremely cautious and gradual tightening of monetary policy in the euro area. In our view, the first interest rate hike should take place towards the end of 2019, but not before the third quarter. In the United States, we expect two further interest rate hikes in 2018 against the backdrop of rising inflation. In the medium to long term, debt funds should receive additional impetus from changes in the regulatory environment. In this regard, we would like to highlight a further tightening that the banking sector is prospectively facing. In such an environment, the sale of assets to debt funds should become more attractive, as this would give banks the opportunity to release regulatory capital. In addition, the gap on the financing side, which has emerged as a result of more restrictive regulation, may widen. In this context, companies could also benefit from debt funds, especially in the non-investment grade segment.

Disclaimer

This analysis is protected by copyright. Commercial exploitation is not permitted without the written consent of Creditreform Rating AG. In order not to falsify the overall statement of the content, only the complete study may be published. Excerpts may only be used with the consent of Creditreform Rating AG. The study may not be published without the knowledge of Creditreform Rating AG. Creditreform Rating AG accepts no responsibility for the accuracy, completeness or timeliness of the information contained in this publication. The analyses on which the study is based and the results based on them do not constitute investment recommendations.

I. Low interest rate environment still conducive to European debt funds

Institutional investors or other funds use debt funds to invest in loans to companies, real estate or infrastructure projects. As already explained in our previous analyses of the European debt fund market, an investment vehicle (the debt fund) invests in largely illiquid and non-tradable loans or grants loans directly. A debt fund is financed by equity in the form of shares or by issuing debt instruments (see e.g. Creditreform Rating, Debt Funds in Europe – Buoyant Growth in a Nascent Market, August 2015). In essence, there are two characteristics that distinguish debt funds from fundamentally similar alternatives such as securitizations: (i) the number of assets in which a debt fund invests is generally significantly smaller than in an ABS pool, and (ii) there is no slicing into tranches in a debt fund structure, i.e. there is no waterfall.

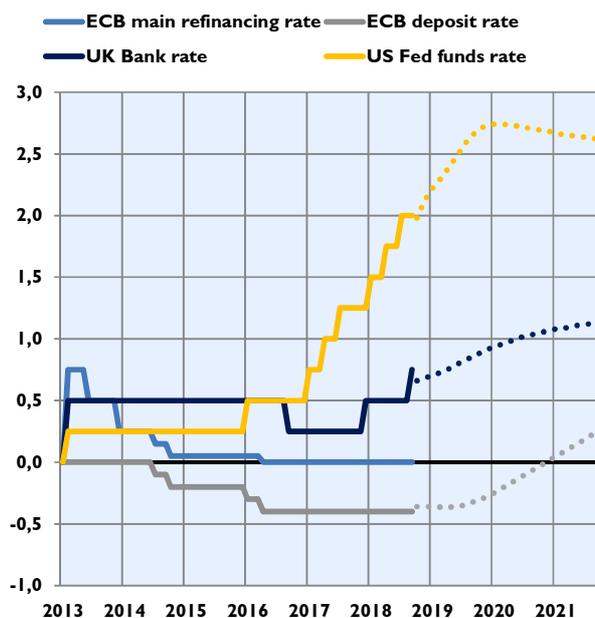
The macroeconomic environment in which debt funds operated in 2017 continued to be favorable. Growth accelerated in both Europe and the United States. After an increase of 1.6% in 2016, the US economy expanded at a rate of 2.3% last year. At 2.4% (2016: 2.0%), the European Union even recorded the most dynamic growth since 2007 (3.1%).

At the same time, monetary policy in the United Kingdom - and especially in the euro area - remains extremely expansionary. The key interest rate in the euro area, which has been at 0.0% since March 2016 (see Fig. 1), was left unchanged at this level last year. In order to keep long-term market interest rates low, the Asset Purchase Program (AAP) was also continued and assets amounting to EUR 60 billion were acquired each

month. At the beginning of this year, the ECB took the first steps towards normalizing monetary policy. In January, the volume of the APP was initially reduced to EUR 30 billion per month, and from October the volume purchased is to be halved again to EUR 15 billion. The normalization of nominal policy rates in the euro area, on the other hand, is still to come. At its most recent meeting in September, the central bank left the key interest rate unchanged at 0.0%.

Fig. 1: Key interest rates and market expectations regarding future interest rate paths in selected currency areas

Nominal policy rates, forward overnight index swap rates as of 02 August 2018



Source: Bank of England, Creditreform Rating

Meanwhile, the US Federal Reserve continued its course of tightening monetary policy, which it embarked on in 2015. After the US monetary authorities had raised the Federal Funds Rate in 2017 in three steps from 25 basis points each to 1.25 to 1.5% at the end of the year, two further interest rate steps followed in 2018. Most recently, the corridor for the Federal Funds Rate was raised to 1.75 to 2.0% in June.

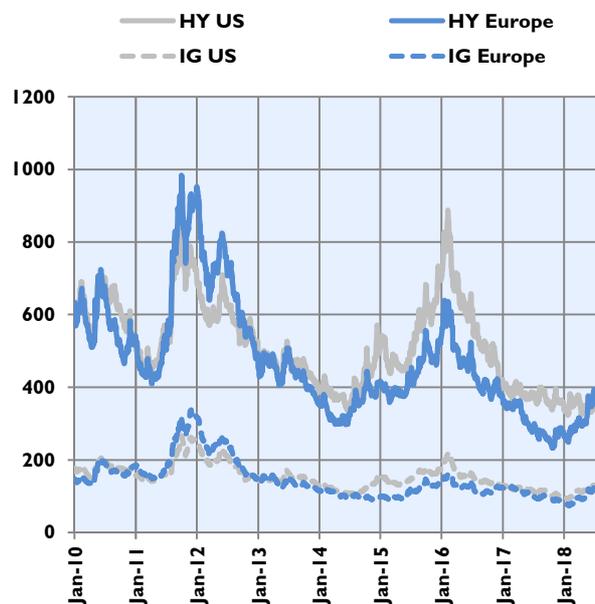
The solid global economic environment coupled with persistently low interest rates is reflected in the development of risk premiums in the government and corporate bond market. In our view, the government and corporate bond segment continue to demonstrate a strong "search for yield" momentum on both sides of the Atlantic.

Although the risk premiums of European high-yield bonds have risen somewhat compared with the previous year, at 369 basis points at the beginning of September 2018 the spreads remained well below the longer-term average (see Fig. 2). As an orientation: Between 2010 and 2017, the corresponding risk premium averaged 484 basis points. The situation in the USA is similar. Recently, corresponding US bonds offered an interest premium of 349 basis points - the longer-term average, on the other hand, is significantly higher at 523 basis points. In the investment grade segment, spreads in Europe and the USA also remain at a very low level.

Yields on long-term government bonds developed unevenly in the euro area last year. While ten-year bond yields in Italy and Portugal (21-09-18) were 65 basis points above and 58 basis points below the previous year's level respectively, these remained extremely low. Yields on 10-year government securities from France and Germany have remained stable compared with the previous year, most recently moving at 0.78% and 0.47% respectively (21-09-18). In contrast, interest rates on 10-year US government bonds continued to rise last year. Starting from 2.3% in September, yields in May 2018 rose above the 3.0% mark for the first time since 2013. Most recently, interest rates on US Treasuries amounted to 3.011%.

Fig. 2: Corporate spreads in a long-term perspective

Option-adjusted spreads, HY ↔ high yield, IG ↔ investment grade



Source: Bank for International Settlements, Creditreform Rating

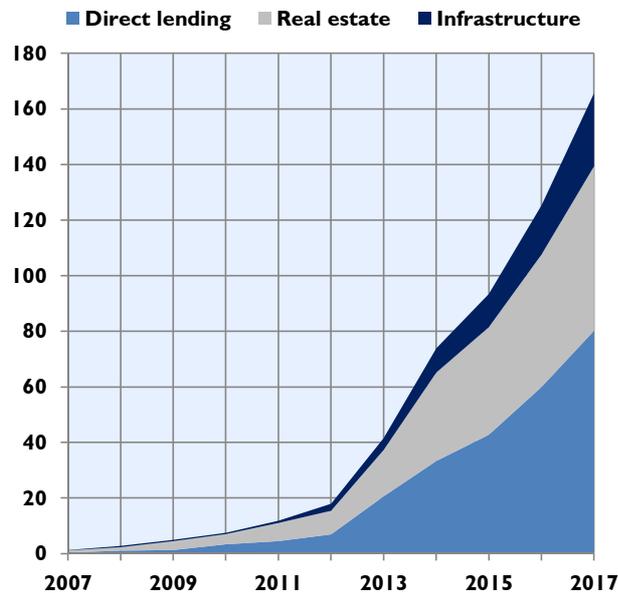
How did European debt funds perform against this backdrop last year? In the following, we continue our analysis of the market development and performance of debt funds. Published for the first time in 2014, we provide, as usual, an overview of the trends in the asset classes Real Estate, Infrastructure and Direct Lending (Corporate) and compare them with the development of the US market. We follow an inductive and explorative approach by collecting the available data on the European debt fund market in order to highlight the most exciting developments. Our calculations are based on data from Prequin and our own market data. Creditreform Rating monitors market developments on an ongoing basis as we analyze existing, future and potential risks at the various levels of debt fund structures and assess a variety of financial instruments relating to debt funds.

2. Market developments in Europe and the US

The European debt fund market again recorded brisk growth in 2017 and was able to retain the previous years' momentum. After the EUR 100 billion threshold was exceeded for the first time in 2016 (EUR 125.3 billion), the cumulative volume of placed and raising funds once again reached a historic high of EUR 165.6 billion in 2017 (see Fig. 3). As a result of the sustained strong growth momentum, the market volume has almost quadrupled within four years. By way of comparison, last year's growth of EUR 40.3 billion almost corresponded to the total cumulative debt fund volume of the European market in 2013 (EUR 41.5 billion).

Fig. 3: Development of the total volume of European debt

Total cumulative volume in EUR billions, including placed and raising debt funds



Source: Preqin, Creditreform Rating

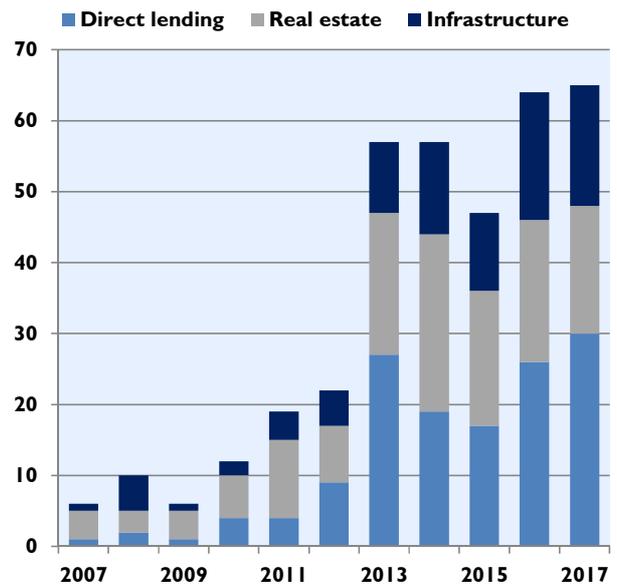
It is also noteworthy that all asset classes again contributed to the expansion of the debt fund market in 2017. As in previous years, the direct lending segment proved to be the growth driver.

European direct lending funds recorded an inflow of EUR 20.2 billion last year. This asset class alone thus contributed half to the growth of the overall market.

In contrast to the cumulative volumes, the number of new debt funds recently stabilized at a high level. After a record number of 64 new debt funds had been registered in Europe in 2016, their number was only slightly higher in 2017 at 65. However, the number of newly launched funds developed unevenly in the individual market segments (see Fig. 4).

Fig. 4: Number of European debt funds in the various

Number of placed and raising debt funds



Source: Preqin, Creditreform Rating

Market activity in real estate and infrastructure debt funds weakened slightly last year. In both asset classes, the number of newly launched funds was slightly below the previous year's level. While 20 new real estate funds were counted in 2016, the number in 2017 was 18. Moreover, the infrastructure funds were not quite able to maintain the high pace of expansion of previous years. While 18 new infrastructure funds were registered in 2016, 17 funds became active on the market for

the first time last year. Nevertheless, the medium-term growth trend in real estate and infrastructure funds still appears intact. Just five years ago, only five new infrastructure funds and eight real estate funds were counted.

Meanwhile, the upward trend in the number of newly launched direct lending funds continued. While 26 new funds were registered on the market in 2016, the number rose to 30 in 2017, thus exceeding the previous high from 2013 (27 funds). As a result, the private debt segment plays a key role in the European market for debt funds, not only in terms of volume but also in terms of the number of funds placed and raising.

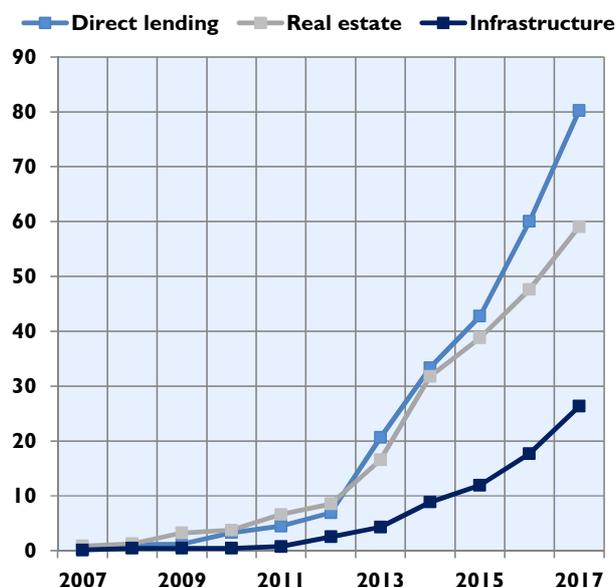
The growing number of newly launched direct lending funds was accompanied by a further increase in fund volumes in 2017 (see Fig. 5). Starting from a cumulative volume of EUR 60.0 billion in 2016, the European direct lending market grew by a third to EUR 80.2 billion within a year. At EUR 20.2 billion, last year's increase was also stronger than in the previous year, when the cumulative volume in the private debt segment increased by EUR 17.2 billion. This enabled the direct lending segment to further extend its lead over real estate funds last year, although this asset class also continued to develop dynamically. European real estate debt funds, for example, recorded the strongest capital inflow since 2014 (EUR +15.2 billion). As a result, the cumulative fund volume rose from 47.6 (2016) to EUR 59.1 billion (2017).

Similarly, vivid growth was registered in the smallest debt fund segment in terms of volume. The cumulative volume of infrastructure debt funds placed and raising amounted to EUR 26.3 billion in 2017, EUR 8.6 billion higher than in the previous year. The sustained high growth in infrastructure funds is particularly remarkable against the background of the strong growth of recent years. Since

2013 (EUR 4.3 billion), the European market for infrastructure funds has grown by a factor of five - and thus far more strongly than the direct lending and real estate segments.

Fig. 5: Volumes of European debt funds in the various asset classes

Total cumulative volume in EUR billions, placed and raising debt funds



Source: Preqin, Creditreform Rating

While debt funds did not begin to establish themselves in Europe until 2007, this form of financing was already becoming much more important in the United States at that time. Significant volumes were recorded in the real estate debt fund segment in particular. As an orientation: While the entire European market for debt funds in 2007 only reached a cumulative volume of EUR 1.3 billion, the volume of US real estate debt funds already amounted to EUR 49.5 billion.

In subsequent years, this asset class recorded steady inflows of funds - a trend that also continued at the current margin. Although the number of newly established funds declined slightly in 2017 (74) compared with the previous year (2016: 77) (see Fig. 6), a record value was reached last year in

terms of newly placed fund volume. After the newly placed volume between 2014 and 2016 had fluctuated around the EUR 30 billion mark, the market for US real estate debt funds picked up significantly last year and a volume of EUR 45.8 billion was registered (see Fig. 7). As a result, the cumulated volume of all placed and raising US real estate debt funds climbed from 241.0 (2016) to EUR 286.8 billion (2017). This means that last year the market was more than twice as large as five years ago (2012: EUR 123.8 billion) and almost five times as large as its European counterpart.

Fig. 6: Number of US debt funds in the various asset classes

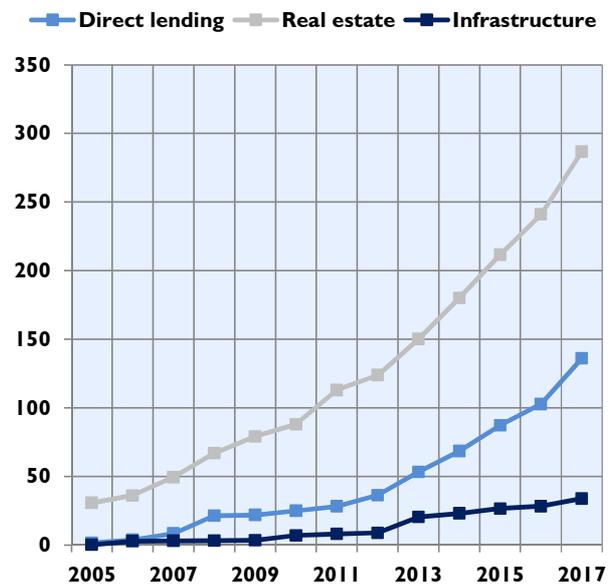


Even more impressive is the medium-term development in the US infrastructure debt fund segment - even though this is certainly attributable to base effects. Within five years, the capital tied up in infrastructure debt funds quadrupled from EUR 8.8 billion (2012) to EUR 33.9 billion (2017). Both the number of newly launched funds and the volume placed and raising recently showed a marked revival in growth momentum. The number of US

funds doubled from 3 to 6, while the newly raised capital increased from EUR 1.8 billion in 2016 to EUR 5.5 billion in 2017. Thus, US infrastructure debt funds last year recorded the highest capital inflow since 2013 (EUR 11.5 billion).

Fig. 7: Volumes of US debt funds in the various asset

Total cumulative volume in EUR billions, placed and raising debt funds



Although the US debt fund market continues to be dominated by the asset class of real estate funds, direct lending funds have become noticeably more relevant in recent years, as in Europe. After the cumulative volume of US direct lending funds had already doubled between 2013 and 2016 from EUR 53.2 billion to EUR 102.7 billion, the market again recorded robust growth last year, reaching EUR 136.0 billion. In terms of fund volume and the number of newly launched funds, new highs were recorded in 2017: In total, we registered 58 new US direct lending funds last year - 14 more than in the previous year, while the newly placed volume of EUR 33.3 billion was also well above the level of 2016 (EUR 15.4 billion).

3. Risk-return profile of European debt funds

Long-term investments such as those made within the framework of debt funds are attractive above all because they offer institutional investors the opportunity to diversify financial instruments more broadly and achieve comparatively high returns. Moreover, in the best case scenario, stable and predictable cash flows can be realized over a long period of time - even in times of economic stress. In addition, the credit risk is reduced more rapidly over time than with other forms of investment such as corporate bonds, mainly due to amortization and repayment. Furthermore, higher recovery rates or liquidation proceeds can be achieved in the event of default.

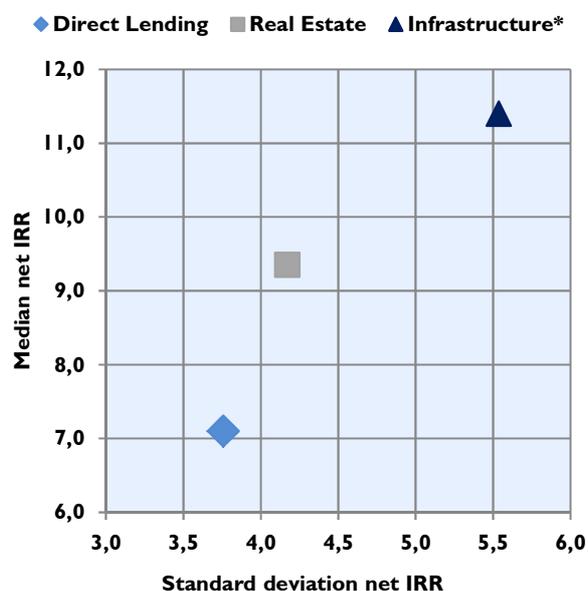
But what about the risk-return profile of debt funds? One of the key performance indicators to which great attention is paid when measuring the performance of debt funds is the net internal rate of return (Net IRR). Net IRR is the return that an investor can expect from his investment over a certain period, less fees and capital costs, on the basis of cash flows that have already flowed and are expected to flow in the future. Whether the return on a debt fund investment is rated as attractive, however, depends not least on the volatility of the returns. Less volatile returns - measured by a lower standard deviation of the net IRR - are at least as important for many investors as their average level.

A comparison of debt funds launched in Europe between 2007 and 2017 shows attractive returns in all three asset classes considered (see Fig. 8). With an average return of 9.4% (median), real estate debt funds are well above the 7.1% of direct lending funds (corporate), but they show a more volatile earnings pattern. The standard deviation of the net IRR for real estate debt funds is

4.2%, compared with 3.8% for direct lending funds. The standard deviation for infrastructure debt funds is at a slightly higher level (5.5%), but with a significantly higher average return of 11.4%.

Fig. 8: Performances of debt funds in various asset classes

Data is shown in %, European debt funds established between 2007 and 2017, *) Investment strategies include debt, primary, secondaries



Source: Prequin, Creditreform Rating

In this context, it should be noted that this risk-return analysis is based on a relatively small sample of infrastructure debt funds, which also have a rather heterogeneous portfolio structure. In the long term, we expect a larger number of infrastructure funds with a debt strategy to result in a less volatile earnings profile and a decline in the standard deviation of the net IRR to the level of real estate debt funds.

The specific risk-return profile of a fund and in particular of a debt obligation issued and rated in connection with a fund can also be individually designed for the respective investor. The loan-to-value ratio, i.e. the ratio between the face value of the financial instrument and the total value of the assets, is often relevant as a structuring feature.

4. Outlook

The outlook for European debt funds remains positive. Thus, the favorable economic conditions should remain in place for the foreseeable future. Regardless of political risks (e.g. Brexit) and the increase in protectionist tendencies, the global economy should continue to follow its growth path in 2018. At the same time, we expect a very cautious and gradual tightening of monetary policy in the euro area. In our view, a first interest rate hike should take place towards the end of 2019, but not before the third quarter. In the United States, we expect two further key rate hikes in 2018 against the backdrop of rising inflation, so that the Federal Funds Rate could stand at 2.25-2.5% at the end of the year. In the long term, however, this interest rate level can still be described as moderate.

Consequently, risk premiums on liquid assets such as corporate and government bonds should remain low for the foreseeable future. Since alternative investment funds (AIFs) are often invested in non-tradable loans or real assets, an illiquidity premium can be realized for investors. Debt funds should therefore remain attractive, especially for institutional investors with a long-term investment horizon.

In the medium to long term, debt funds should receive additional impetus from changes in the regulatory framework. Firstly, on 12 March 2018 the EU Commission presented a proposal for a directive to facilitate the cross-border distribution of investment funds. Currently, European fund managers who wish to be active across borders are incurring costs due to a heterogeneous regulatory environment. The distribution requirements, but also the notification requirements and fees differ, in some cases considerably, between the individual EU member states. As a result, only 3%

of AIFs are registered for sale in more than three member states.

On the other hand, the banking sector is prospectively facing a further tightening of capital requirements. After several years of consultation, on 7 December 2017 the Basel Committee on Banking Supervision (BCBS) adopted the revised framework "Basel III: Finalizing post-crisis reforms" for the (standardized) calculation of risk-weighted assets (RWA) in its final version. A primary objective of the new regulation is to restrict the scope of those financial institutions that use bank internal procedures (IRB) to determine capital adequacy. As the Bank for International Settlements has noted, there are currently significant differences in the level of risk-weighted assets depending on the approach chosen.

Of 32 internationally important financial institutions that use internal models, RWA for corporate exposure were lower in 30 cases than it would have been if the Standardized Approach (SA) had been used (see Fig. 9). The differences are in some cases significant and amount to more than 50% for some banks. In order to ensure comparability with regard to the level of RWA, it was therefore decided to gradually increase the output floor. After the end of a transitional phase, the capital requirements of banks adopting the IRB approach may not be more than 27.5% lower than those that would result from an application of the SA. As a result, lending to companies may become more expensive for many banks and thus less attractive.

In such an environment, the sale of selected financial assets to debt funds should become more attractive, as this would give banks the opportunity to release regulatory capital. In addition, the gap on the financing side, which has emerged as a result of more restrictive regulation, could tend to widen.

Creditreform Rating AG is registered by ESMA as a European rating agency. We provide credit risk assessments and offer our customers a wide range of rating and credit services as well as risk management solutions. Our ratings inform investment decisions of global investors and creditors and are also widely used for regulatory purposes. We carry out corporate and issue ratings, sovereign ratings and bank ratings and assess structured financing. In addition, debt funds in the asset classes corporates, real estate and infrastructure are particularly subject to our ratings for institutional investors. Creditreform Rating is a shareholder of European DataWarehouse GmbH.

Creditreform Rating AG's research gives you an overview of the economic situation and the situation on the financial markets. We regularly publish analyses of developments on the financial markets and the economic situation in Germany, the euro area and selected national economies. You can also find sector-related studies or statements on economic policy aspects or regulatory innovations in our download area.

Follow us on www.creditreform-rating.de