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RESEARCH INSTITUTE

Society & Finance 27/12/2018

# Active versus passive: What really matters for bonds

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## Abstract

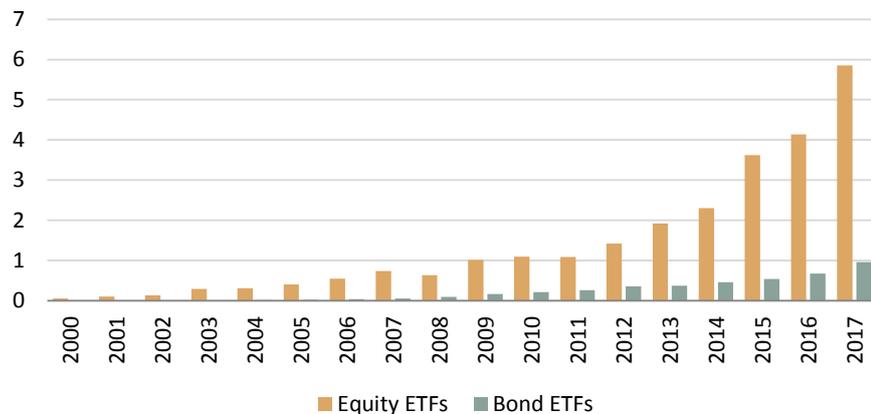
The discussion about "active vs. passive" has been intensive for many years. Particularly in the context of the stock markets, this is mostly due to the strong growth in volume and the strong diversity of passive products, especially exchange traded funds (ETFs). However, the discussion is now also spreading to the bond market. Even though the security class of bond-based ETFs is still quite young, their total volume reached 1 trillion US dollar at the end of last year (**Figure 1**). The question whether an active fund manager can beat its corresponding benchmark or an ETF derived from it is likely to be increasingly discussed across asset classes from now on

## Zusammenfassung

Die Diskussion um „aktiv vs. passiv“ wird bereits seit vielen Jahren leidenschaftlich geführt. Gerade im Kontext der Aktienmärkte ist dies nicht zuletzt auf den starken Zuwachs des Volumens und die mittlerweile sehr beträchtliche Vielfalt der passiven Produkte, insbesondere der Exchange Traded Funds (ETFs), zurückzuführen. Doch greift die Diskussion mittlerweile auch auf die Rentenseite über. Auch wenn die Wertpapiergattung der anleihenbasierten ETFs noch recht jung ist, reicht auch hier das Volumen zum Ende des vergangenen Jahres an die 1 Bio. US-Dollar Grenze heran (**Abbildung 1**). Die Frage, ob ein aktiver Fondsmanager seinen entsprechenden Benchmarkindex bzw. einen hieraus abgeleiteten ETF schlagen kann, wird fortan wohl verstärkt anlageklassenübergreifend diskutiert.



Figure1: Global volume of ETFs issued by asset class in trillions of US-Dollar.



Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.

*The majority of active equity funds do not manage to beat the broad market in the long run.*

Proponents of the passive investment approach see themselves supported by broad empirical evidence in relation to the stock market. The majority of active equity funds do not manage to beat the broad market in the long run, since the sum of the performance of all investors corresponds to the market yield - and this before deduction of the fund costs. Accordingly, the average of active managers must fall behind the market. As we already explained in an earlier study, investors must therefore actively search for funds with a consistent investment strategy, which significantly increases the chance of a sustainable excess return.<sup>1</sup>

*As with equities, the superiority of active fund solutions is not given for granted for fixed-income funds.*

With this paper, we want to make a further contribution to the discussion on "active vs. passive", now turning our attention to the bond market. We show that active bond fund managers with a globally oriented, flexible investment approach can beat the broad market over longer periods of time. Not surprisingly, this observation does not apply to the entire sample of funds included and all investment periods. We therefore apply our reasoning from the above-mentioned study and point out that in the bond market, too, the superiority of actively managed funds should not be blindly relied upon, but that the search for capable managers with a consistent investment strategy is essential. In the following, the peculiarities of the bond market compared to the equity market will be worked out. Such peculiarities result in both additional earnings opportunities and challenges for the investment process.

<sup>1</sup> Gehringer, A./Lehmann, K. (2017) „Abseits des Zufalls“, Flossbach von Storch Research Institute, Marktverhalten 21/9/2017.



## Decision parameters for bond investments

*There are several parameters to consider in the process of bond investment that can increase the yield potential...*

James Moore diskutiert in seiner jüngsten Untersuchung verschiedene Renditepotenziale, die eine etwaige Überlegenheit des aktiven Anlageansatzes bei festverzinslichen Wertpapieren begründen können.<sup>2</sup> Demnach:

- ...many bond investors - in contrast to equity investors - pursue not only the goal of optimizing their investments from the point of view of risk-return, but also investment goals that deviate from this approach and are often associated with losses in return due to certain restrictions. These include in particular central banks, which act as buyers of government and corporate bonds to achieve their monetary policy goals, and insurance companies, which optimize their asset-liability structure. This results in potential higher returns for bond investors who pursue classic risk-return optimization.
- ...only a small proportion of the securities issued are integrated into indices and thus replicated by passive strategies. This is due to the fact that conventional indices often only contain bonds that have a rating. But not every bond has a rating. In addition, these credit ratings are often adjusted to economic conditions with a certain delay. A bond fund manager who is not tied to the performance of a benchmark index therefore has a much broader range of investments available and can also react more quickly to quality changes.
- ...the issue volume relative to the total market value is much higher for bonds than for equities, which makes an active presence in the primary market per se attractive. Conventional bond indices, on the other hand, are not immediately adjusted for newly issued bonds. This happens generally only at the end of the month, which precludes the collection of any new issuance premiums.
- ...bonds are complex securities concerning terms, conditions and contract details. This allows active investors to freely choose between different maturities, security structures (senior, subordinated, call structures, etc.) and currency areas. Accordingly, the pricing of bonds is not always efficient, as the assessment of the attractiveness of a bond requires a more comprehensive analysis.
- ...the yield distribution of bonds does not follow the law of large numbers and the yield development in the short run does not follow a random walk. A high probability of weak positive returns is

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<sup>2</sup> Moore, J. (2017) „Anleihen sind anders“, Blickpunkt, February 2017.



offset by a low probability of high losses. This refers to the risk that the debtor will not meet his payment obligations properly. However, this risk can be reduced by an active credit risk analysis. If, on the other hand, one invests in a bond index, the companies with a high level of debt are highly weighted here.

Two further arguments speak in favor of additional return potential for the globally oriented and flexible bond fund managers. First, there is a pronounced market segmentation of bond investors, who often have a home bias in their choice of investments. A globally investing bond fund manager who can switch between markets without restrictions is thus given significant additional earnings opportunities. Secondly, the decoupling from ratings offers further advantages for a flexible bond fund manager. Not only does this increase the universe of investible bonds, it also increases the yield potential for bonds without ratings.<sup>3</sup>

*... but the complexity of the market can be challenging.*

All this suggests that the bond market is far less efficient than the equity market in terms of the risk-return profiles of existing investment opportunities. However, this does not necessarily imply that the flexibility of a global bond fund manager must favor a sustainable excess return. Similar to equity funds, some bond funds only appear to be actively managed. In fact, however, they deviate only slightly from the composition of the benchmark index. For some others, the inherent market complexity represents a (too) great challenge. It is conceivable that the range of possible development paths may increase as a result, i.e. higher opportunities are offset by higher risks of achieving a return deviating from the broad index. This increases the relevance of a consistent investment approach.

### **Methodology and data**

*We compare the performance of actively managed bond funds with the performance of two bond market indices.*

In what follows, we analyze the performance of actively managed bond funds that can act completely flexibly, i.e. are not subject to rating restrictions or geographical restrictions. We look at the period from January 2006 to October 2018 and compare the performance of these funds with that of global bond indices, the Bloomberg Barclays Global Aggregate Index (BBGA), which reflects the global market for government and corporate bonds with investment grade rating, and the Bloomberg Barclays Multi-universe Total Return Index (BBM), which additionally represents global government and corporate bonds without investment grade rating. The price history of the so far unique ETF that tracks the BBGA Index (SPDR Bloom-

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<sup>3</sup> For details, see „Warum aktive Rentenmanager gegenüber der Benchmark im Vorteil sind“, available at: <https://www.institutional-money.com/news/maerkte/headline/warum-aktive-rentenmanager-gegenueber-der-benchmark-im-vorteil-sind-143943/newsbild/11/>.



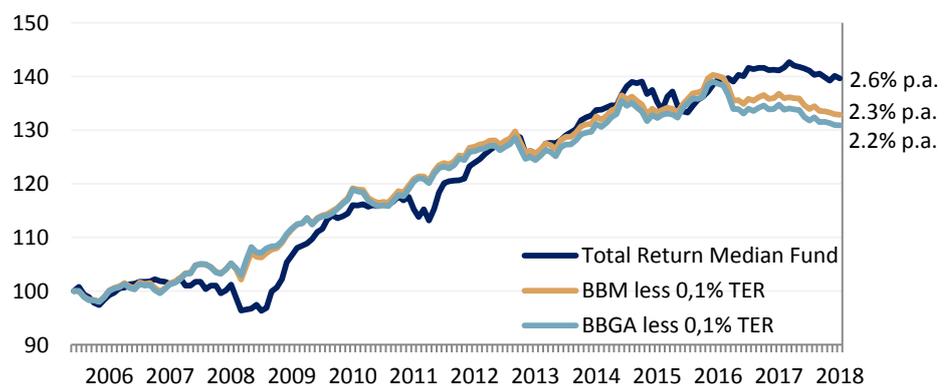
berg Barclays Global Aggregate Bond EUR Hdg UCITS ETF) only goes back to February 2018. Therefore it has an insufficient performance history. There is currently no ETF instrument on the BBM Index. However, In order to enable a comparison between active and passive investment strategies, we consider the performance of the two indices directly. In doing so, we subtract an expense ratio derived from the aforementioned ETF, which amounts to 10 basis points.<sup>4</sup>

*Ensuring maximum freedom of choice for fund managers is an important prerequisite for sustainable outperformance, but it is not a guarantee.*

Our focus on actively managed and completely flexible pension funds is justified by the arguments discussed above. Ensuring maximum freedom of choice for fund managers is an important prerequisite - but not a guarantee - for achieving sustainable outperformance. Any restrictions, such as currency or rating restrictions as well as the focus on certain countries or sectors, should reduce the chance of a long-term outperformance. On the basis of this definition, we were able to obtain a sample of 214 bond funds from Morningstar's database, including funds launched after the start of the period.

Over the entire period January 2006 - August 2018, the median return of bond funds by cost was 2.6%, slightly above the median return of the two (cost-adjusted) benchmark indices, the BBGA (2.2%) and the BBM (2.3%) (Figure 2).

Figure 2: Yearly total return (TR) of active bond funds (median) vs. indices BBGA and BBM.



Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.

<sup>4</sup> This is a conservative assumption, given that we are at the lower end of costs of bond ETFs.



The figure shows, however, this result of an excess return depends on the point in time considered. In the recovery phases following the Great Financial Crisis (February 2009 - July 2010), in the wake of the European debt crisis (September 2011 - March 2013) and following the market turbulence of the Taper Tantrum (August 2013 - February 2015), bond fund managers were able to achieve significant outperformance of the two benchmark indices, whereas they had previously lagged behind the benchmark indices.

*The active funds have a narrow lead on average over the observation period.*

This is also illustrated in **Table 1**, which shows the annual success rate of the funds, i.e. the proportion of funds in the respective year that beat the index less the expense ratio of 0.1%. A success rate of over 50% shows that the majority of active funds were able to beat the underlying passive investment. Across all analyzed years and observations, the active funds have a narrow lead, with very low success rates in the crisis years of 2007, 2008 and 2011, while the subsequent recovery phase apparently provided plenty of scope for generating outperformance.

Although the overall picture may seem rather volatile at first glance, it can be seen that a few funds were among the top 25% of the analysed funds for many years. This shows that some fund managers were able to outperform the market even over longer periods. In addition, the success rate is much higher than in equities, for which we had determined a probability of success of 28% for a similar investment horizon in a previous study.

**Table 1: „Success ratio“ of the analysed funds over the time period under investigation compared with the performance of the BBM Index.**

	Σ	2018ytd	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
<b>N</b>	<b>964</b>	189	153	127	100	85	66	53	48	38	31	27	24	23
<b>Funds &gt;Index</b>	<b>494</b>	120	65	87	48	33	38	43	1	19	26	3	3	8
<b>Funds &lt;Index</b>	<b>470</b>	69	88	40	52	52	28	10	47	19	5	24	21	15
<b>Success ratio</b>	<b>51,2</b>	63,5	42,5	68,5	48,0	38,8	57,6	81,1	2,1	50,0	83,9	11,1	12,5	34,8

Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.

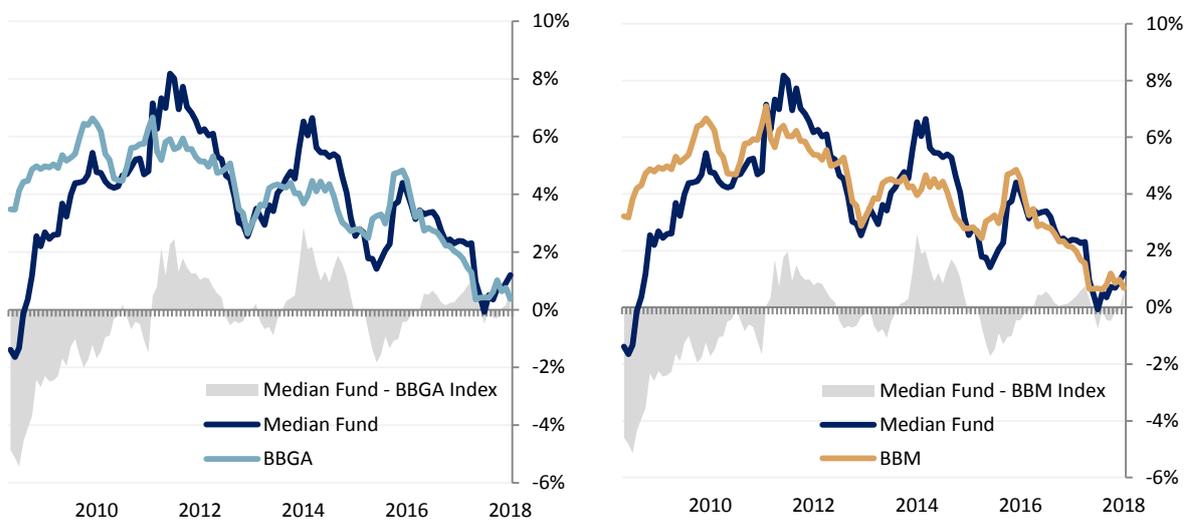
Note: „Funds>Index“ and „Funds<Index“ mean that the performance of the funds in the analysed years was better/worse, respectively, than that of the index. „Success ratio“ is defined as the share of funds in a given year outperforming the index less the expense ratio of 0.1%. The sample comprises only 189 funds, given that 25 funds were only issued in the course of 2018.



The following analysis focuses on rolling 3-year returns.<sup>5</sup> Since 92 of the securities included have no corresponding three-year performance history, the sample is reduced to 122 funds. From this sample, we identify the fund with the average performance (median), which we compare over time with the performance of the two bond indices described above.

Looking at the rolling returns, **Figure 3** shows that an investor who blindly selected a fund had to accept a below-average return in the first two years of our observation window, even though he subsequently achieved a return above the market return and thus also above the return of passive investment instruments.<sup>6</sup>

**Figure 3: Rolling 3-year return (gross total return) of the average bond fund (median), the benchmark indices (BBGA or BBM, less 0.1% TER) and the achieved excess return of the average bond fund (median).**



Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.

<sup>5</sup> The calculated returns are from the perspective of a euro investor. The choice of the 3-year yields is compatible with the typical investment horizon of a bond investor, as argued by Morningstar and implemented in its own calculations. See Dobrescu, M., Li, J., Möttölä, M. (2018) "Finding bond funds that can beat their benchmarks after fees", Morningstar, May 2018. The choice of interval duration is robust to changes, as our calculations with rolling 5-year returns (shown in the appendix) show.

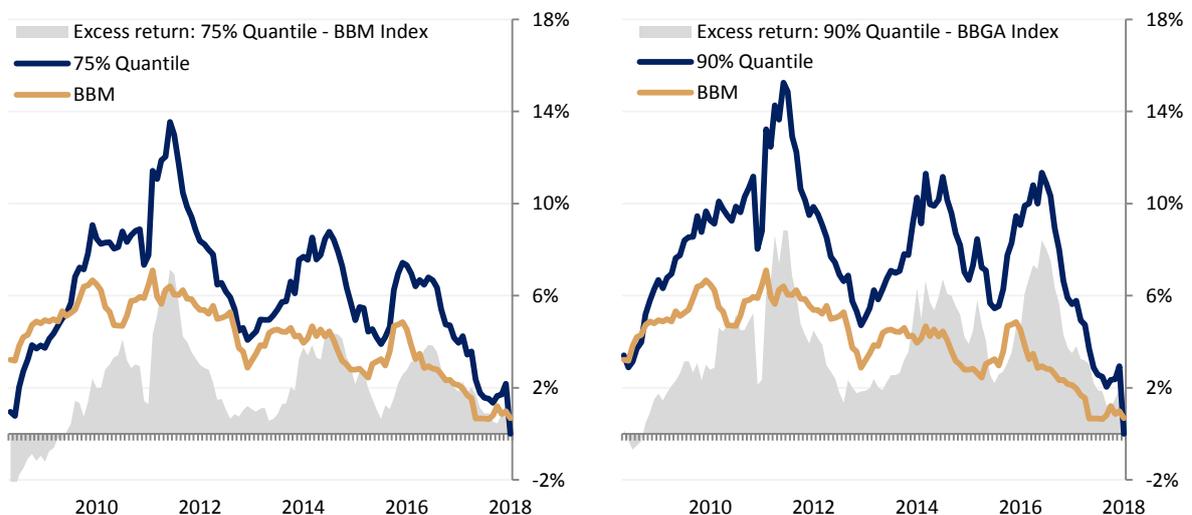
<sup>6</sup> The same picture emerges if rolling 5-year returns are used as the basis for calculation (see **Figure 6** in Appendix).



However, the sole focus on average performance does not take into account the distribution of returns in the observed sample. To get a better impression of this distribution, it is worth looking at **Figures 4 and 5**, which show the corresponding values of the 75% and 90% quantile funds (funds that were among the 25% and 10% of the best) and the 25% and 10% quantiles (funds that were among the 25% and 10% of the worst) of our sample over time and compared to the BBM Index. With the exception of a very short phase of weakness around the financial and economic crisis in 2008/9, the yields of the 25% and 10% of bond funds with the strongest performance, respectively, well above the market yields. As a result, many of the active fund managers were apparently in a position to make effective use of the potential returns discussed above. However, this is by no means the case for everyone, as the comparison of the 25% and 10% of the performance-weakest funds in the sample with the index shows: there was no market phase in the period under consideration in which these bond funds were able to generate an excess return. It is therefore obviously not sufficient to simply break away from the index in order to exploit the inefficiencies discussed. Rather, a consistent investment strategy is also required in the context of fixed-income investments. This should significantly increase the chance of success in beating the broad market.

*The returns of the bond funds with the strongest 25% and 10% performances respectively were significantly higher than that of the market.*

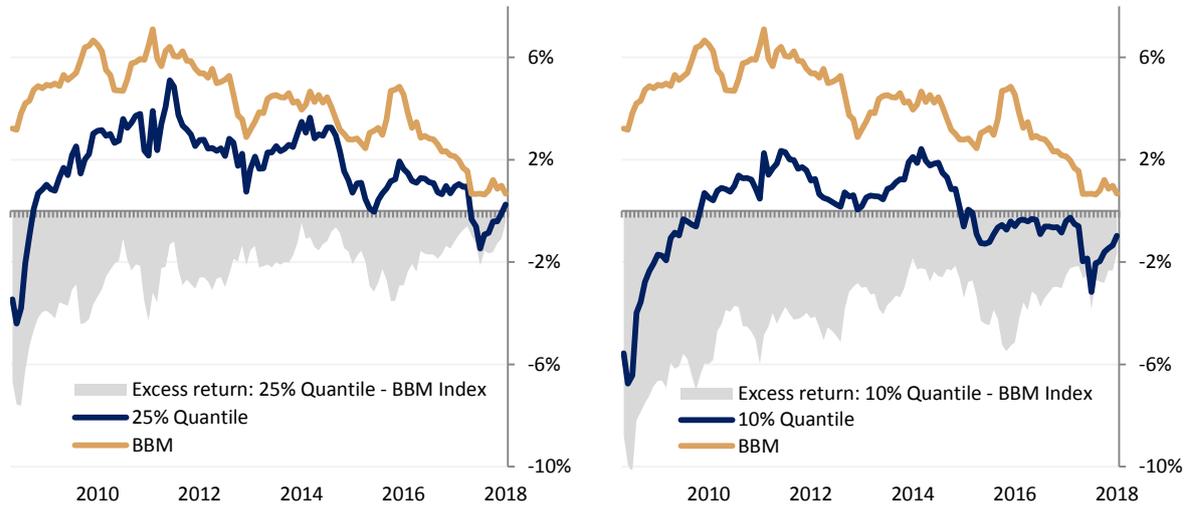
**Figure 4: Rolling 3-year return (gross total return) of the 75% and 90% quantile fund, the benchmark index BBM (minus 0.1 % TER) and the excess return achieved by the funds.**



Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.



**Figure 5: Rolling 3-year return (gross total return) of the 25% and 10% quantile fund, the benchmark index BBM (minus 0.1 % TER) and the excess return achieved by the funds.**



Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.

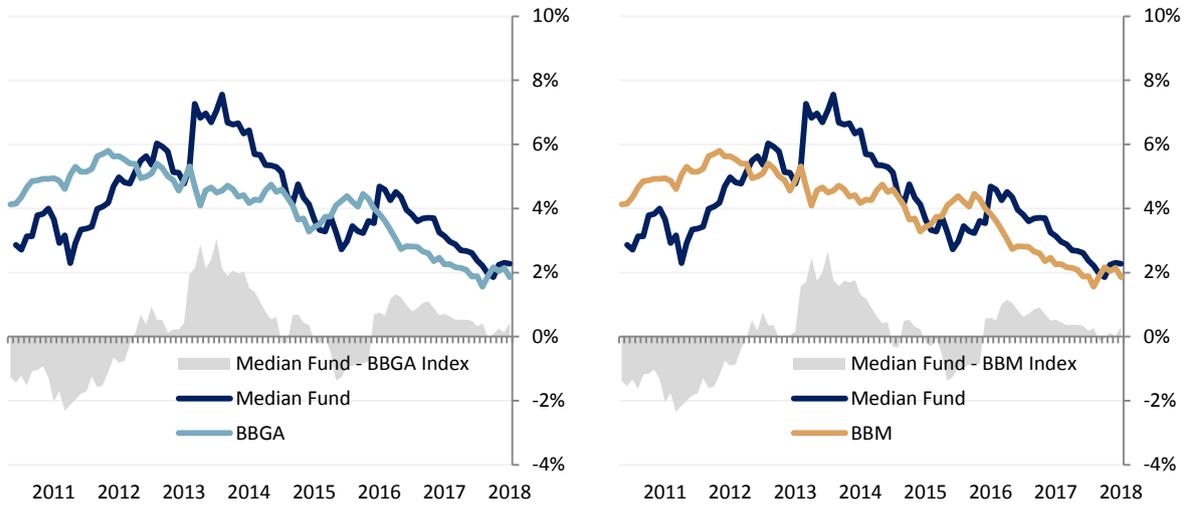
## Conclusions

The bond market is highly complex in terms of the strong segmentation of traded securities, their diverse characteristics and the diverse agendas of market participants. This can favour inefficiencies in the pricing process. For managers of flexible bond funds, this offers a variety of different sources of income. However, the complexity of the bond market leads to challenges too. As our research shows, some active fund managers were able to exploit these sources of return and outperform the most important benchmark indices over longer investment periods. The success rate of active managers is higher than in equities. Nevertheless, the superiority of active fund solutions should not be blindly relied upon in the fixed-income area, but the search for capable managers with a consistent investment strategy is also an important prerequisite here.



## Appendix

Figure 6: Rolling 5-year return (gross total return) of the average bond fund (median), the benchmark indices (BBGA or BBM, less 0.1% TER) and the achieved excess return of the average bond fund (median).



Source: Own elaborations Flossbach von Storch Research Institute, Bloomberg, November 2018.



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