

Investment Proposals in German Private Banking: Historical Developments and Current Trends

A Research Study on Behalf of Dimensional Fund Advisors Ltd.



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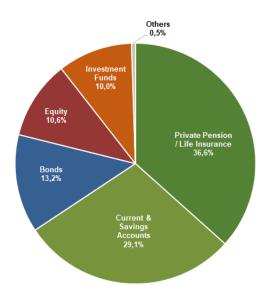
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1 German Private Banking: Differences to the Anglo-American Area, target variables, concerns and perspectives

Many German affluent clients have traditionally not been overly interested in investment matters and exhibit a high level of risk aversion, which is clearly substantiated by the average asset allocation held by German investors. In 2019, the most significant position with a share of 37% in the average portfolio of assets held by German private households are life insurance policies and private pension products (pillar 3), whereby the distinct majority of the products in this class includes a full capital-back guarantee and – as a consequence – contains only a relatively small share of risky assets despite of a typically long investment horizon, as you can see in the following figure.

Figure 1: Distribution of Financial Assets of Private Households in Germany in 2019¹



About 29% of the average assets of German private households are held in liquidity, i. e. current accounts and savings accounts. Fixed income securities capture 13% of the average investment portfolio, leaving about 21% for equities and investment funds. In consequence, only 11% to 21% of the average investment portfolio are allocated in risky assets with accordingly high expected returns. The high level of risk aversion among German private investors is naturally adapted and served by private banks. Many financial basics are not necessarily clear even to academically educated German private investors. For example, they typically expect banks to time the market because they do not understand that market timing is often detracting long-term value. Risk management is therefore more often focussed on avoiding short term losses in times of increased customer fears than on improving performance – a popular slogan in German private banking investment proposals can be summarized as "safety first, then returns".

¹ Deutsche Bundesbank: Verteilung des Geldvermögens privater Haushalte Deutschlands in 2019, Stand 13. Mai 2020



Performance tends to be explained on an absolute base only, and large changes in portfolio value are usually explained primarily with the equity markets. Furthermore, the performance of single investments is often not measured against an adequate benchmark, but against the initial purchasing price. Private banking have been benefitting for a long time from a certain degree of intransparency in the market, as private banks and wealth managers have not been publishing their results and there is no common standard for performance reporting ensuring comparable performance results across different market participants. Risk and performance attributions are conducted rarely. Hence, unlike in the mutual fund space, underperformance versus benchmarks or peer groups has largely gone unnoticed by clients.

Due to this mixture of widespread misconceptions about the capital market in general and the associated fears about the stock market even in many private banking clients in Germany, we believe that a lot of financial education will still be necessary to prepare average German private clients for the merits of diversified and benchmark-orientated investment approaches with an adequate equity share.

1.1 Performance

Above average performance is probably the key factor for an asset manager's long-term success, elevating the assets under management via inflows of new assets from existing and new clients. While the fundamentals for achieving an optimal long-term performance expectation is readily available with modern capital market theory (i. e. broad diversification, focus on strategic asset allocation, periodic rebalancing, harvesting of factor premia and keeping the overall expenses low), most research agencies as well as institutional and private investors evaluate the performance of private banks, asset managers and / or family offices based on relatively short time intervals of one, three or five years. This undermines the factor of time, which is critical to long-term successful investments in high-risk assets, and confronts asset managers with conflicting demands from their clients.

1.1.1 Relative Performance

Private banking has been benefitting from a certain degree of intransparency in the market, as private banks and wealth managers have not been publishing their results and there is no common standard for performance reporting ensuring comparable performance results across different market participants. Hence, unlike in the mutual fund space, underperformance versus benchmarks or peer groups has largely gone unnoticed by clients. Within the mutual fund space, rating agencies either focus on time intervals of five years (Scope, VWD, Finanztest) or evaluate timespans of three, five and ten years (Morningstar, Lipper), whereby in all cases, the short- to medium-term performance within the past three to five years primarily determines fund ratings.

Within the private banking segment, performance ratings have been emerging during the last years, and rating services like firstfive, Private Banking Prüfinstanz ("Performance-Projekt") and WirtschaftsWoche ("Beste Vermögensverwalter") have started to collect and compare track records. While an increase of transparency within the private banking segment is of course favourable, the available performance ratings focus on even shorter time intervals than the ratings established in the mutual fund industry. Five years is the longest period of time that is assessed in performance rankings. Regulation will sooner or later enforce a comparable standard for the reporting of portfolio returns, and the MaComp guideline can be seen as a dedicated step in that direction, stipulating performance reporting across a time horizon of five years and emphasizing the requirement to quantify the effect of expenses and provisions. How heterogeneous the performance reports still are, despite the regulatory requirements, will be discussed in more detail in the empirical part (see chapter 2.5).



The future progress of performance transparency has the potential to turn underperformance into a problem needing to be explained to end clients. It is therefore prudent to adjust investment processes towards a certain degree of awareness for reporting requirements and benchmarks without incentivising the "hugging" of benchmarks and without discarding the key investment goal of long-term success. Private banking units that are subsidiaries of multinationals typically are already benchmarked against custom benchmark portfolios by their mother companies even if the results are not shown to the clients.

1.1.2 Absolute Performance

The zero/negative interest rate environment that emerged within the past ten years has made it impossible for the conservative part of the portfolio to generate enough returns to even cover the expenses. The zero interest environment, the huge increase in money supply and the subsequent asset price inflation generated a decade of steady increases in the valuation of real assets, i. e. equity and real estate. For these reasons, investors might have to adapt to slightly lower returns in the forthcoming decade.

Furthermore, wealth managers had to move up the risk scale by shifting from government bonds to corporate bonds and even high yield bonds or by increasing the overall share of risky assets, simply to cover expenses and meet the requirements of their investors. The additional risk taken – especially the increase in default risk – poses a significant challenge to asset managers and stresses the importance of a high-quality portfolio management, broad diversification and a sophisticated quantitative risk management approach with careful monitoring of risk factors.

Private clients have to be convinced that paying a reasonable fee for a high-quality wealth management service is a good investment and that long-term risk-adjusted performance after costs will benefit from a structured investment process and professional risk management.

1.2 Revenue and Cost

Revenue is closely related to the management fee charged by a wealth manager. It interferes with the costs incurred at the level of the investment products held in the portfolio, since the sum of the external and internal fees reduces the performance achieved on the capital markets. Costs can scale either in proportion to the size and level of client activity (account management, model portfolios,...), and the complexity and activity of the investment approach (portfolio management, research, reporting, compliance, ...).

MiFiD II has forced banks to abstain from fund provisions and to disclose ex ante and ex post expenses not only in percentages but also in Euros. While paying 0.8% has been acceptable for many clients, paying 8.000 € maybe not. Reporting the ex post costs in Euros has heightened customer sensitivity for total costs, i. e. the sum of internal and external expenses. With the intention of preserving the level of portfolio management fees, private banks had to reduce the costs of products used in the portfolios. This has intensified the trend to shift from actively managed funds to passive funds and ETFs. In addition, it has also put downward pressure on fee schedules for wealth management services.

In the meantime, expenses for regulatory compliance and documentation have increased. Cost pressure will stay high - replacing research intensive parts of the asset management service such as stock selection or fund manager selection with cost efficient passive products can make this easier to some extent. Complex structured products and illiquid assets are losing ground because of their costs,



regulatory burdens attached to them and the research effort needed. Many German private banks have resorted to covering single stocks and corporate bonds from their home market, Germany, as well as European and US blue chips. They add a selection of government or municipal bonds in some cases. The majority of the remaining portfolio components are ETFs or active funds, some still use a few structured products.

1.3 Staff Size and Degree of Specialization

The need for personnel depends on the size of the customer base and the complexity and activity of the investment approach. While a straightforward passive and strategic buy and hold approach with periodic rebalancing can be run by a small and generalistic team, a highly active market timing and stock picking approach may require a larger team of highly specialized skill sets like economists, analysts, risk managers, experts for equity, funds, bonds and / or investment regions and sectors.

Many of the smaller German private banking units and wealth managers have traditionally had investment processes that by the standards of institutional investors required relatively low levels of research effort. In many cases they did not conduct profit forecasts on their own nor complex company analyses. Instead, fundamental valuation, price momentum, economic outlook of the business model, press reports and brand recognition by investors were utilised as major criteria. Smaller wealth management units frequently do not have the resources to maintain a large team of investment specialists, but rely on one specialized economist or analyst as head of investment or head of portfolio management and complement the investment committee with executives and senior account managers.

Professional research tools like Bloomberg, Morningstar, Refinitiv or Barra are not totally common among smaller wealth management units. To some degree, smaller private banks have been working with the charme of delivering hand made and individualized portfolios rather than factory products. As a consequence, account managers with a more generalistic investment focus by nature bear significantly more responsibility in small private banking units as compared to very large asset management companies, where portfolio construction is run by a specialized team of investment experts and the role of account managers defaults to customer support, sales and communication of investment decisions and performance results.

Medium size market participants that can sustain a small team of investment specialists and have the resources to rely on capable data tools often focus on one market segment or asset class in which they develop a very high level of expertise to distinguish themselves from competitors. In many cases, this specific expertise is focused on the equity segment and is reflected in the realisation of elaborate equity portfolios composed by a high number of single stocks stemming from the screening or bottom-up selection of a large universe of individual stocks that is monitored for that purpose. Less frequently, specialized investment units focus on adding value via specific expertise in the bond markets, e. g. by evaluating and selecting (unrated / illiquid) bonds via internal rating models.

Current and future development in the private banking sector involves steady changes in the personnel requirements of wealth management units. Increased regulatory requirements are shifting scarce resources away from research to compliance and documentation. Financial education of private clients is increasing slowly but steadily, thereby raising the awareness for cost efficiency among customers. Negative interest rates force banks to move up the risk scale to meet the requirements of their clients, so there is a high need for cost-efficient and research-based investment approaches including the optimal utilisation of risk budgets.



In the customer documents - which are at the center of the empirical analysis in the following chapter - information on specialist staff in asset management is almost exclusively provided by large supraregional banks and private banks. Large banks usually speak of 100-200 portfolio managers and analysts with an average of more than 10 years of work experience. Private banks usually speak of 30-40 securities specialists. At savings banks, cooperative banks and independent asset managers, information on specialist asset management staff is the exception. Instead, savings banks and cooperative banks often provide information on the number of their investment advisors. Due to this very infrequent data situation, we will not deal with this topic in more detail in the empirical part.

1.4 Investment approaches

Active portfolio management is seen as a core competence and core value added by almost any private banking unit - whether portfolios are constructed with active or passive funds or single securities is of lesser importance. A controlled level of home bias remains popular among wealth management units and customers, especially if single stock selection is part of the investment approach. To a certain extent the relatively low performance of European stocks vs US stocks in the last years raised questions about how big the home bias should be.

As a consequence of the increased regulatory, reporting and documentation requirements as well as for other reasons like quality assurance and efficiency, model portfolios are obtaining increasing attention. In the past, central portfolio management of bigger banks constructed model portfolios and many local advisors either utilised them or ignored them more or less. This behaviour has been steadily changing during the past years, as more and more advisors stick to the centrally managed model portfolios and central portfolio management has improved internal communication with and training of advisors. Even in some smaller wealth management units without a central portfolio management unit, investment managers connect with each other to share and leverage their expertise and establish a guiding scope for their investment decisions, allowing more time with clients and a higher level of specialization.

Time intensive research directed to satellite asset classes and actively managed funds is on the decrease. Resource intensity, product cost and high regulatory requirements on documentation has reduced their popularity. For this reason, satellites are frequently implemented using ETFs or mutual funds. Playing themes through ETFs or funds can work almost as well in client communication as playing them with single stocks, while usually being the preferable solution risk/return-wise. As an alternative to the active management of entire portfolios, core/satellite approaches built of relatively stable passive core investments and a few satellites with high public attention and conclusive narratives are equally appreciated by customers and can be notably more efficient with respect to expenses and risk/return. Currently, banks have converged to a mixture of single stocks and bonds, ETFs and some active funds. The weight will probably continue to move in the direction of passive investment vehicles, pure ETF portfolios being quite typical for lower volume portfolios, e.g. below the mark of 500 T€.

ESG compliant investing is a growing trend. In the near future, banks will have to ask their clients for their individual ESG preferences and will have to document how they define and implement ESG criteria. A growing group of investors is demanding ESG compliant portfolios, whereby the definition and operationalisation of ESG criteria remains divergent to a large degree (e. g. carbon emissions vs. broad ESG approaches, exclusion vs. best in class and impact investing approaches, weighting of environmental, social and governance variables, risk-based vs. normative motivation of ESG valuations).



Fully elaborated proprietary ESG approaches demand significant amounts of resources and expenses and will probably remain a niche specialization among private banking units, whereby some market participants might take that road to distinguish themselves from competitors. Most small and mid-size institutes cover ESG criteria via a cooperation with one of the big and renown ESG opinion leaders and data providers. As a consequence, most private banking units rely on one or two ESG specialists who are in charge of ESG compliant product selection and communication of ESG-related content. Full-size ethics committees will probably remain a rarity among private banking units, simply because of their significant demand of resources on the one hand and because large groups of customers want ESG compliant investments but do not demand a very deep and individualised ESG implementation.

1.5 Customer Perception

From the perspective of an asset management division, a commercially successful investment approach requires a conclusive marketing narrative. An asset manager can for instance highlight the expertise and capability of an active investment team to screen a large number of individual enterprises (selection) and the alertness to quickly react on any event that might impact the capital markets (market timing). Passive investment approaches are often motivated by taking a scientific and data-based view on investment decisions.

Clients rely on wealth managers because they recognize the strategic component of long-term investment success and correctly conclude that maintaining, monitoring and adjusting a significant strategic investment goes far beyond putting together a portfolio with a handful of funds or ETFs. Nevertheless, a wealth manager needs a convincing illustration where his professional wealth management service adds value and how he aspires to achieve optimal performance results in the long run, whether it is the competence of the bank in stock picking, the anticipation of market movements or the merits of a passive, science- and data-based investment approach relying on broad diversification, rebalancing and factor premia. Especially during periods of market stress clients request personal advice and need to be supported by their advisor to retain confidence in the transience of losses and recuperation of capital markets after periods of stress and to avoid a fear-driven exit of their adequate and well-elaborated investment strategies.

In the past, advisors with active management approaches often highlighted some of the positions in the portfolio and some of the adjustments they made. Modern investment approaches with a large fraction of the assets invested passively can accentuate the advantages of anticyclic investment behaviour as resembled by a disciplined rebalancing process within core portfolio building blocks and illustrate the value it has added by showing e.g. some positions that have outperformed and where profits have been realized in the previous year. The narration of harvesting systematic risk premia and skipping the unsystematic risk that goes along with highly active portfolio management is conclusive because of the sheer amount of academic research and long-term data analyses that substantiate passive investment approaches. Passive strategies relying on factor investing via smart beta investment vehicles have already been successfully adopted by many banks and are very common among robo advisors.

Portfolios consisting mostly of passive investment vehicles, some investment trends and themes as satellites and / or a selection of promising single stocks and bonds combine a number of advantages: they are cost-effective, manageable, have a relatively low risk of continuous underperformance, require only adequate resources, enable efficient harvesting of risk premiums, and enable active portfolio management to be carried out and demonstrated to a reasonable extent.



Combined with a consistent flow of narrations for advisory meetings stemming from the providers of the core building blocks or the banks themselves, they seem to be where the German banking industry is heading today. This combination is a good way of moving from the old world of a bank picking single stocks or funds to one where low-cost efficient building blocks dominate.



2 Empirical Analysis

2.1 Data Base

All of the empirical data presented below is based on two asset manager tests in the private banking segment that we have carried out once a year since 2008 and 2011 respectively. In both test formats, trained test subjects contact leading asset management providers and ask for investment advice on a predefined test case. There are four types of contacted asset managers:

- (1) Large supra-regional banks (e.g. Deutsche Bank, Commerzbank, HypoVereinsbank)
- (2) Large regional savings banks and cooperative banks (e.g. Sparkasse KölnBonn, Deutsche Apotheker- und Ärztebank, Frankfurter Volksbank)
- (3) Renowned private banks (e.g. Berenberg, Bethmann, Hauck & Aufhäuser)
- (4) Renowned independent asset managers (e.g. Flossbach von Storch, DJE, V.M.Z. Dr. Markus C. Zschaber mbH)

Once they are accepted as a prospect, the test subjects attend advisory meetings until they have received a complete investment proposal at the level of individual securities, for which also the costs are completely clear. Two consultations are usually necessary to get to this point. This investment proposal is then the data base for all evaluations below.

The two test formats differ essentially in the investment amount for which advice is requested, referred to below as "lower PB" and "higher PB". The investment amount in the former case typically ranges between 0.5 to 0.75 million euros, and in the latter case in the low to mid single-digit million euro range.

During the consultations, the test subjects provide in both test formats the following basic information with regard to the availability of capital, risk tolerance and investment horizon:

- The capital is freely available.
- The test subject wants to completely delegate the asset management to the respective provider.
- The financial situation of the test subject is such that the investment amount in question will not be needed for the foreseeable future, so it can be invested in the long term.
- The test subject is experienced with all major asset classes and is prepared to invest a significant proportion in equities (if recommended).

The rest of the content of the test case is adapted to the real life situations of the respective test persons in order to enable the most possible authentic appearance.

In 2020, 22 asset mangers were tested in the lower PB segment and 19 asset managers in the higher PB segment. The corresponding advisory meetings took place in June 2020 for the higher PB segment, and in the two-month period from July to August 2020 for the lower PB segment. Below, this year's results are always presented first and then put into a historical perspective as far as reasonably possible. In most cases, unfortunately, this can only be done for the lower PB segment, since there the comparability of the historical data is better with regard to most of the research questions. Furthermore, we have the longer data history there.



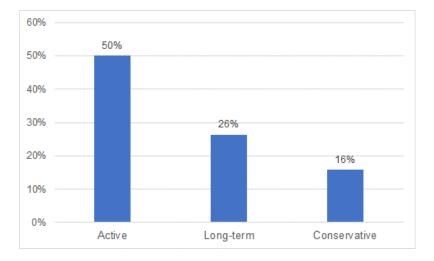
2.2 Investment Approaches

2.2.1 Descriptions of Own Investment Approach

We first analyzed how the asset managers themselves describe their investment approach in their client documents. On the one hand, we examined which marketing statements are used most frequently and, on the other hand, how the investment approaches described can be classified from a technical point of view.

With regard to the first question, it can be stated that the adjectives most frequently used when describing one's own investment approach are the following three:

Figure 2: Frequency of the three most commonly used adjectives when describing the own investment approach



Accordingly, the most common claims are "active management" and "long-term security over short-term returns". Apparently, from the asset managers point of view, the term "active management" does not have any negative connotations, although one could think so based on the financial media coverage in recent years.

With regard to the technical classification of the investment approaches described, the following categories can be formed according to our evaluation:

- (1) **Elaborated Top Down**: The client documents contain a clear and detailed description of a multilevel top-down investment process with detailed strategic and tactical process steps.
- (2) **Indicated Top Down:** The client documents indicate a top-down process by mentioning a few keywords.
- (3) **Combined Approach:** The client documents describe an explicit combination of a top-down and bottom-up investment process.
- (4) **Fundamental Approach:** The client documents focus on the description of the outstanding fundamental research capacity.
- (5) **Unclear:** Some buzzwords about investing are mentioned, without leading to a clear overall picture. The description seems primarily marketing-driven.

The following table shows how often we made these classifications in the two analyzed segments:



Figure 3: Frequency of Investment Approach Descriptions in the Lower and Higher PB segment 2020

Туре	Lower PB	Higher PB
Elaborated Top Down	58%	32%
Indicated Top Down	21%	11%
Combined Approach	0%	11%
Fundamental Approach	5%	21%
Unclear	16%	26%

We find it remarkable that descriptions of a top-down process seem to be much more common in the lower segment than in the higher segment. While a top-down process is at least indicated in almost 80% of the cases in the lower segment, this is only the case in a little more than half of the cases in the higher segment. Accordingly, the description of fundamental research processes plays a much greater role in the customer documents for the higher segment than in the lower segment. We also find it noticeable that "unclear" descriptions are more common in the higher segment than in the lower segment. In our opinion, this speaks in favor of a different description of the own investment approach in the two segments, which in the higher segment seems to be even more marketing-driven.

2.2.2 The Role of a Scientific Approach

With regard to the question to what extent reference is made to scientific concepts in the customer documents, it is possible to form the following categories according to our evaluation:

- (1) **Basic CAPM**: Explicit reference is made to basic concepts of classical portfolio theory.
- (2) **Further developments of CAPM:** Explicit reference is made to further developments of portfolio theory like for example Fama-French-Factors.
- (3) Macro- und Business Economics: Explicit reference is made to macro- and/or business economical concepts.
- (4) **Miscellaneous:** General reference is made to "scientific standards" without further description, or scientific references are restricted to specific subjects (e.g. ESG).
- (5) No reference: No reference to any scientific concept.

The following table shows how often we made these classifications in the two analyzed segments:



Figure 4: Frequency of References to Scientific Concepts in the Lower and Higher PB segment 2020

Reference to	Lower PB	Higher PB
Basic CAPM	32%	11%
Further developments of CAPM	11%	11%
Macro- und Business Economics	0%	42%
Miscellaneous	11%	0%
No reference	47%	37%

First of all, you can see that a stronger reference to scientific concepts, especially in the lower segment, do not play a great role. There, no reference of this type can be recognized in almost half of the customer documents, and in a further 11% of the cases such a reference is only rudimentary.

Here again there is a clear difference between the lower and the higher segment with regard to the reference to macro- and/or business economical concepts. These concepts play the greatest role in the customer documents of the higher segment, while they do not occur at all in the lower segment. References to macro- and/or business economical concepts usually come together with a fundamental investment approach (see

Figure 3). As we will see in detail below, this fits in with the fact that significantly more single securities are used in the higher segment (see Figure 18).

2.2.3 The Role of ESG Investments

Since the publication of the EU Action Plan for Financing Sustainable Growth² in March 2018 at the latest, the question of the ecological, social and ethical dimension of capital investments has become of great importance for all actors in the field of financial services. Accordingly, for some years now, we have noticed an increased interest among German asset managers in these issues and we have now carried out a number of projects on this subject. We therefore think that we now have a fairly good overview of the status of the various asset managers' perspectives and activities on this subject. In the following, we would first like to share some of our findings in this regard in order to make it clear how we classified the ESG-related information contained in this year's customer documents.

Asset managers who start looking at ESG are usually surprised that, on closer inspection, it quickly turns out to be much more complicated than it appears at first glance. Usually, one of the first things they learn is that it is not enough to exclude some companies with problematic business activities from the investment universe (notwithstanding the fact that in most cases it is not trivial to define a "problematic" business activity). Accordingly, the EU has made it clear in its action plan that it is not concerned with avoiding morally questionable business activities, but rather with actively promoting

² European Commission: Action Plan: Financing Sustainable Growth. Brussels, 08 March 2018.



sustainable business activities. In its taxonomy for sustainable activities³, the EU consequently attempted to define these business activities concretely.

Against this background, if one tries to evaluate the contribution of a company (or even more complex: a state) to a more sustainable economic world, taking into account all its internal and external stakeholders, it quickly becomes clear that this is a task that cannot be carried out independently even by a large specialist department of a large corporation. Therefore, even large asset managers are dependent on using the services of external ESG rating providers. Their tasks are so resource-intensive in terms of information technology and specialist knowledge that this market is now dominated by a few large companies that continue to grow through mergers and acquisitions. Specifically, in our conversations with ESG specialists from German banks and asset managers, the providers MSCI, ISS ESG and Sustainalytics (recently merged with Morningstar) are referred to as "the big three". In fact, most of the German asset managers we know are supplied by one or more of these three providers.

Another intellectual challenge is the fact that the ESG ratings of different providers are correlated relatively low, due to the fact that there are partly fundamentally different perspectives on the subject. The "moral-ethical approach", which derives its assessments from theoretically ideal sustainability considerations and uses committees with experts in a wide variety of disciplines to determine these. This approach basically corresponds to that of the European Commission, and the most prominent representative of it on the part of the rating providers is ISS ESG. In contrast, the younger "investor-centered approach", of which the most prominent representative is MSCI, has recently become very popular. Regardless of moral and ethical considerations, it identifies how strongly a company is exposed to ESG-sensitive issues, how well these issues are managed by the company and what risks and potential returns result for an investor. Roughly speaking, all other larger providers can be positioned between these two poles.

In view of these and similar intellectual challenges posed by the ESG-subject, it is usually easy to see which asset manager is strategically addressing the ESG topic as a company, and who sees it merely as an unpleasant "regulatory duty". A first indication in this direction can sometimes be the mere point in time since the asset manager has been offering ESG-compliant investment opportunities. There are asset managers in the German market who have offered this for over 15 years and who now have double-digit billions of AuM in such strategies. With such providers, it can often be seen that they are trying to embrace sustainability as an organization. In addition, they often have their own sustainability advisory board or in-house sustainability research.

With this in mind, we have divided the ESG-related information in the customer documents of this year's tests into the following three categories:

- (1) **Elaborated ESG Approach**: There seems to be a serious effort to integrate the subject into the investment process, which is credibly reflected in the investment proposal.
- (2) **Indicated ESG Approach**: The subject is mentioned but the provided information does not credibly indicate a serious effort to integrate the subject into the investment process.
- (3) Not addressed: No reference to ESG or sustainability.

The following table shows how often we made these classifications in the two analyzed segments:

³ EU Technical Expert Group on Sustainable Finance: Taxonomy: Final report of the Technical Expert Group on Sustainable Finance. Brussels, 09 March 2020.



Figure 5: Frequency of Elaborated or Indicated ESG Approach in the Lower and Higher PB segment 2020

Туре	Lower PB	Higher PB
Elaborated ESG Approach	42%	37%
Indicated ESG Approach	42%	53%
Not addressed	16%	11%

When interpreting these figures, it is important to know that the testers in the lower segment were not instructed to express a preference for sustainable investments of their own accord (in the higher segment this was subliminally the case). It is all the more remarkable that this subject was addressed by the investment advisors on their own initiative in over 80% of the cases, even in the lower segment. We think that underscores the current importance of this topic. However, we can also see that the relevant documents are only convincing in half of the cases.

It also seems remarkable to us that in the higher segment the proportion of not really convincing documents on this subject is slightly higher than in the lower segment. This is possibly a further indication of the stronger marketing orientation of the documents in the higher segment mentioned above (see chapter 2.2.1)

2.2.4 Customer Perception of Investment Approach

This year, especially for the present study, we asked the testers in the lower PB segment⁴ to fill out an additional questionnaire after the advisory meetings, which deals with the choice of subjects made by the investment advisor and their weighting. The aim was to determine whether the investment advisor's choice of subjects was consistent with the way the investment approach is described in the client documents and to what extent this appears convincing. Accordingly, the testers were first asked to indicate to what extent each of the following subjects was a (a) central, (b) important, (c) mentioned or (d) unmentioned subject in the advisory meetings. These subjects are based on our long-term experience with regard to which subjects are usually particularly emphasized in customer documents.

- Active Management: emphasis on the in-house capabilities for security selection and active portfolio management.
- **Diversification:** emphasis on the breadth of global investments across all regions, sectors, currencies, etc.
- Cost Efficiency: emphasis on the cost efficient product use.
- Scientifc Approach: emphasis on the scientific soundness of the own investment approach.

⁴ Since the advisory meetings in the higher PB segment took place before the commissioning of the present study, this questionnaire could not be applied there.



- Risk Management: emphasis on disciplined, rule-based risk management.
- **Customer-Specifc Investment Approach:** emphasis on the ability to respond individually to customer's investment priorities.
- Extensive Investment Opportunities: emphasis on the ability to provide market access to all types of investments.

If one of those subjects was rated at least as "mentioned", the testers were also asked whether they found the way in which this subject was treated by the investment advisor as (a) fully convincing, (b) rather convincing, (c) not really convincing or (d) not convincing at all.

The following figure first shows the evaluation of the answers regarding the significance of these subjects.

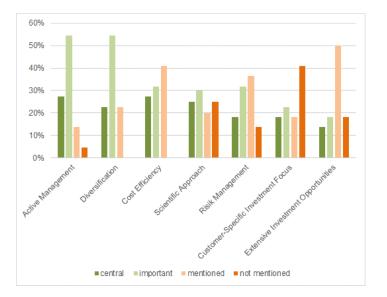


Figure 6: Significance of subjects as perceived by testers in the Lower PB segment 2020

You can see that the first three subjects (active management, diversification, cost efficiency) are the ones that the testers felt were most important to the investment advisors. When it came to the subjects of active management and diversification, over three quarters of the testers had the feeling that these were important or even central subjects of the advisory meeting. When it comes to cost efficiency, this value is still around 60%. The subjects of diversification and cost efficiency are also the only two that apparently never went unmentioned.

The subject of "scientific approach" plays an interesting special role: on the one hand, half of the testers stated that this was an important or even central subject in their advisory meetings. On the other hand, it is the second most frequently neglected subject. Obviously it is a rather polarizing subject that is either avoided or brought to the fore. The least important subject seems to be "customer-specifc investment approach", which goes unmentioned in over 40% of the cases, possibly related to the lower PB segment.

In the following you can see how convincing the treatment of these subjects was perceived by the testers.



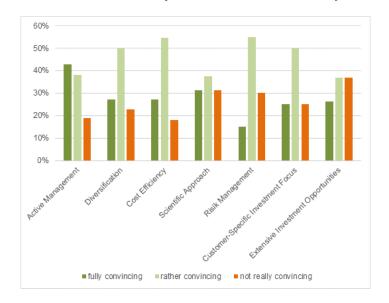


Figure 7: Persuasive Power of Subject Treatment as Perceived by Testers in the Lower PB segment 2020

Obviously, the investment advisors succeed quite well in being convincing on those subjects they emphasize, as there is an obviously high correlation between the significance of subjects shown above and the persuasive power shown here. Here again, the significance of active management seems remarkable to us, as the investment advisors on this subject are most often perceived as "fully convincing". It also seems interesting to us that here, too, the subject of scientific approach is the one in which the investment advisors are second most frequently perceived as rather unconvincing.



2.3 Asset Allocations

2.3.1 Basic Asset Allocation 2020 and historically

We start with the pie charts below, showing the average basic asset allocation as proposed in the lower and higher PB segment in 2020:

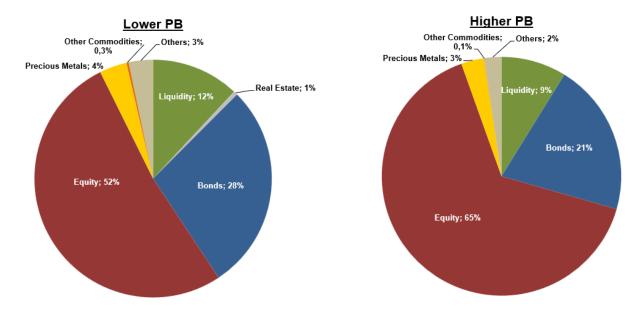


Figure 8: Average Basic Asset Allocation in the Lower and Higher PB segment 2020

We can see that the allocations are quite similar in both segments and do not contain major surprises. Probably the most remarkable fact is the clear dominance of equities and bonds and the almost negligible role of alternative investments and real estate. The latter fact is likely to have two main reasons: First, the legal requirements for open-ended real estate funds, which were introduced in 2013 in response to the financial crisis and which require minimum holding periods and notice periods for redemption. Second, the fact that the net wealth of German private households is very highly correlated with their real estate holdings⁵. Accordingly, in the case of wealthy German clients, it can generally be assumed that real estate accounts for a significant proportion of their total private wealth.

At the level of individual differences between the asset managers, there are of course some outliers (e.g. an equity proportion of 99% in the lower segment, or a liquidity proportion of 26% in the higher segment). However, best practice currently seems to be to base the investment proposal primarily on equities and bonds. With regard to the remaining portion, there is essentially a dichotomy: those who hold it as liquidity, and those who invest a certain part of it as precious metals (which was almost exclusively "gold" this year).

⁵ Deutsche Bundesbank: "Vermögen und Finanzen privater Haushalte in Deutschland: Ergebnisse der Vermögensbefragung 2017" (Monatsbericht April 2019)



A look from a historical perspective shows some interesting developments:

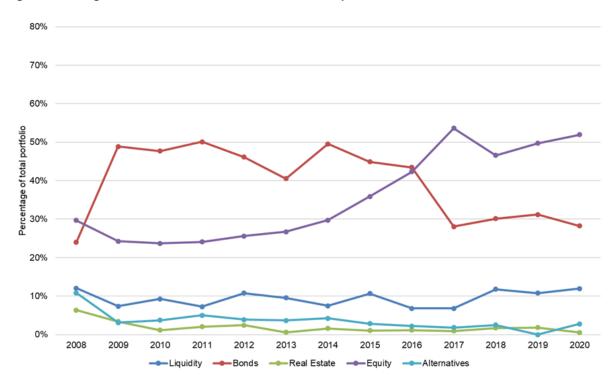


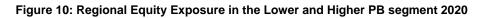
Figure 9: Average Basic Asset Allocation in Historical Perspective

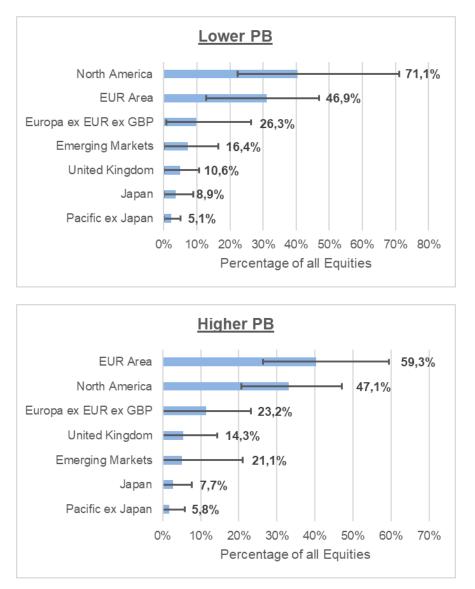
First of all, it can be seen that the key interest rate of the ECB, which fell to zero in 2016, has obviously brought the average bond proportion to a permanently lower level. Accordingly, 2016 also marks the point in time since the average equity proportion is higher than the average bond proportion. Furthermore, as already mentioned above it can be seen that the financial crisis of 2008/2009 led to a decline in the average proportion of open-ended real estate funds, which play almost no role any more since 2013. An almost parallel decline since the financial crisis of 2008/2009 can also be seen for alternative investments, which reached its low point last year. The future will show to what extent this year's proportion is the beginning of a small comeback. Perhaps the most remarkable observation is the surprisingly stable trend in the liquidity proportion, which seems to have remained largely unaffected by the financial crisis or the interest rate environment.



2.3.2 Allocation of Equity 2020 and historically

The breakdown of the equity component in the lower and higher PB segment is broken down in more detail below. We start with this year's regional breakdown. The length of the blue bar shows the average exposure, the black line indicates the range across all proposals (accordingly, the black number shows the maximum of the range).

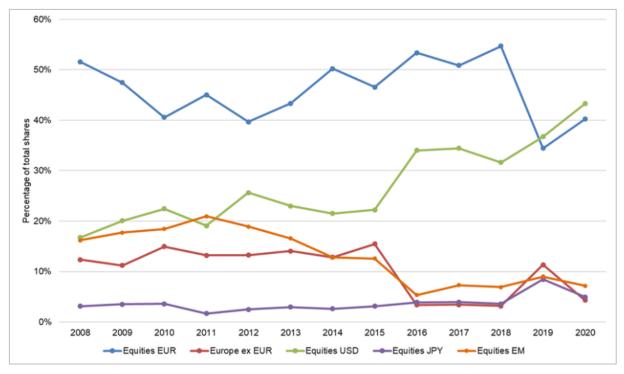




In average, we see the expectable overweighting of the Euro area, which is basically justified in investment proposals for Euro investors. It is even more pronounced in the higher segment than in the lower segment. In terms of market capitalization or GDP, this overweight is primarily at the expense of the North America portion. We find it remarkable that in both segments, the Asia-Pacific region and the Emerging Markets are significantly underweighted on average. In the lower segment, the weighting of the Emerging Markets, even in the maximum case, only approaches their market capitalization. In the higher segment, only a few asset managers exceed this threshold.



In the historical perspective presented below, you can see that the overweighting of the Euro area was even higher until two years ago. Since then, the strong overweight in the Euro area has been reduced to some extent. This shift was apparently mainly in favor of the US market. In contrast, the portions of the other regions have been almost as low as this year for five years. In particular, the portion of Emerging Markets has been declining almost continuously since a high of over 20% in 2011. The portion of Japan has been very stable for over 10 years at just under 5%. (apart from a brief high last year).





The following figures show the analog data for sectors.

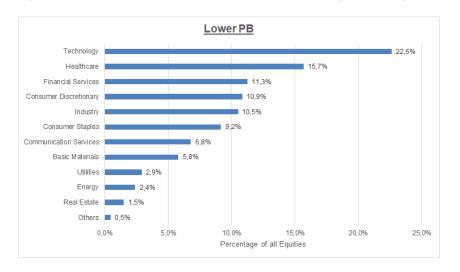
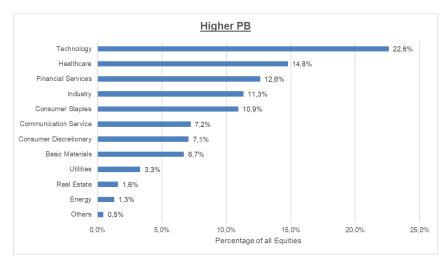


Figure 12: Sectoral Equity Exposure in the Lower and Higher PB segment 2020





It can be seen that the sector breakdown in both segments is very similar: technology is by far the most heavily weighted sector in both segments, followed by healthcare and financial services. Together these three sectors account for 50% of the total equity share. There are hardly any significant differences in the weighting of the other sectors either. The biggest difference arises in relation to consumer discretionary, which is weighted almost 4% higher in the lower segment than in the higher segment.

Unfortunately, we are not in a position to offer a historical perspective on this data because we do not have a sufficiently complete data history about the sector allocation. Thus, it cannot be said with certainty whether the high weighting of the technology sector is a already longer-standing historical trend or a cyclical behavior based on the strong historical performance of this sector. However, given the regional data presented above, it seems reasonable to assume that the shift from the euro to the US market two years ago at least played a bigger role in the weighting of the technology sector, which would mean that the huge technology weighting is a rather new trend.

2.3.3 Allocation of Bonds 2020 and historically

We continue with the more detailed bond breakdown in the lower and higher PB segment, starting with this year's breakdown of credit ratings.

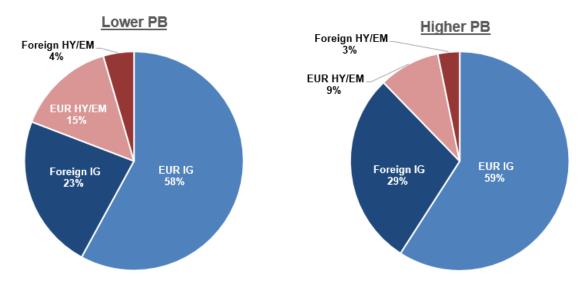


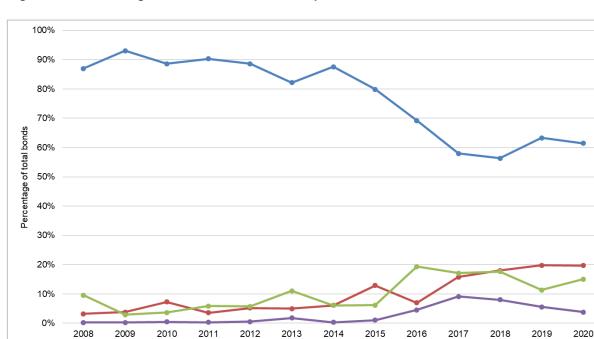
Figure 13: Credit Rating Breakdown in the Lower and Higher PB segment 2020

Research Study



It can be seen that over 80% investment grade bonds are used in both segments. The share of euro bonds is also quite similar in both segments and is around 70% in each case.

As the following look at the historical perspective shows, this year's portion of euro investment grade bonds is following a downward trend that began in 2014 and has leveled off at the current level of around 60% for 4 years. Before 2014, the portion of euro investment grade bonds ranged from 80% to over 90%. This is likely to reflect the interest rate development of the past decade. Investment grade bonds in foreign currencies, as well as high yield and emerging market bonds in euros, apparently benefited from this development. However, high yield and emerging market bonds denominated in foreign currencies did not benefit from the bond investment shift. Their portion has even decreased since 2017.



Bonds Foreign IG

Bonds EUR HY/EM

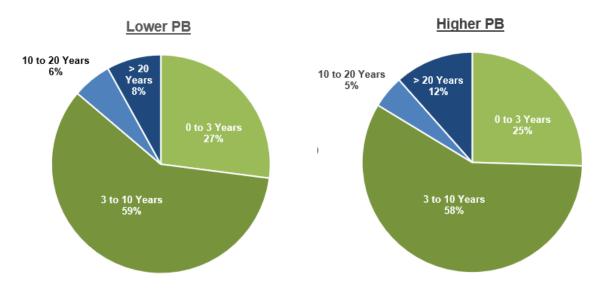
-Bonds Foreign HY/EM

Figure 14: Credit Rating Breakdown in Historical Perspective

Bonds EUR IG



The following figures show this year's data for maturities.





Similar to the credit rating breakdown it does not reveal any major differences between the two segments. More than half of all bonds have terms of between 3 and 10 years, another quarter have short terms of less than 3 years. A certain difference can be seen between the two segments in the structuring of the long terms: While long terms (10 to 20 years) and very long terms (> 20 years) are almost equally weighted in the lower segment, the latter are clearly overweighted in the higher segment.

A view of this data from a historical perspective is unfortunately not possible due to an insufficient data history at this level of detail.

2.3.4 Currency Allocation 2020 and historically

The following figure shows this year's currency distribution in both segments in more detail (please note that the Euro components shown here do not only include investments denominated in Euro, but also all investments that are hedged against the Euro).



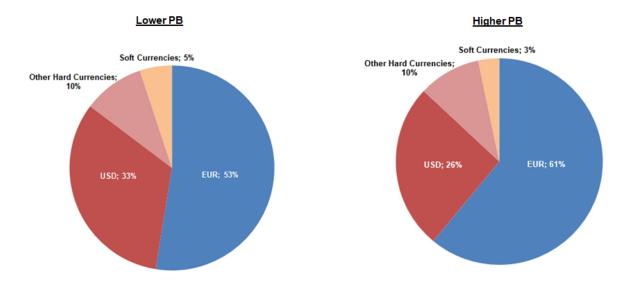


Figure 16: Average Currency Allocation in the Lower and Higher PB Segment 2020

Similar to the analysis of the regional equity exposure (see Figure 3), we see that the overweighting of the Euro is on average even more pronounced in the higher segment than in the lower segment. At this level of the overall portfolio, the dominance of the Euro in both segments is even more pronounced, since the Euro share is usually even higher in the bond sector than in the equity sector.

Regarding these average values, however, it should be noted that the currency allocation differences between the individual asset managers are sometimes considerable. For example, investment proposals have been made in both the lower and the higher segment in which the Euro share is only a little over 10%. Conversely, an investment proposal has been made in the higher segment that consists exclusively of Euro investments. The maximum Euro share in the lower segment is almost 75%.

In previous tests, the foreign currency exposure was not always broken down in detail. Therefore, the following figure can only offer a rough historical perspective on this subject in both segments. It shows that the average Euro share of the overall portfolio was usually significantly higher in the past than this year. This applies in particular to the lower segment, where a continuous decline in the Euro share can been observed since 2009. In the higher segment, at least in the period from 2013 to 2019, a similar decline can be observed, compared to which a certain increase took place this year.

Research Study



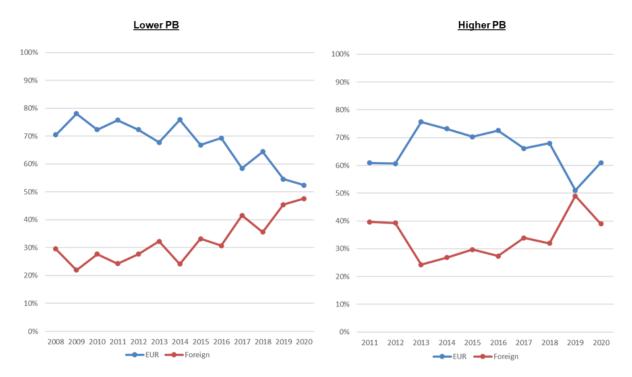


Figure 17: Average Currency Allocation in Historical Perspective



2.4 Product Use

2.4.1 Product Use 2020 and historically

With regard to product use, it first can be stated that the vast majority in both segments makes quite differentiated investment proposals. In the higher segment, all proposals consist of at least 20 different security positions and 45 different security positions on average. In the lower segment, the average is just slightly below at 42. However, in the lower segment there are a few cases in which the investment proposal is limited to a few active multi-asset funds. In the following, we start the detailed look at the product use with the average product allocation as proposed in the lower and higher PB segment in 2020:

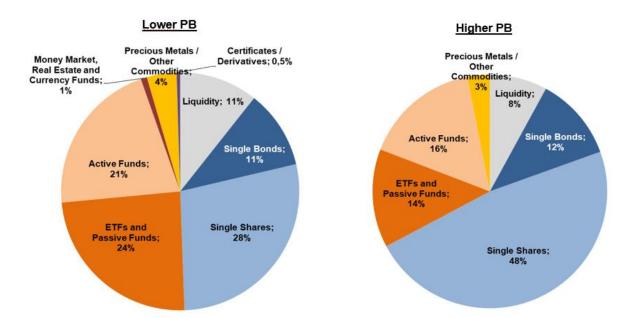


Figure 18: Average Product Allocation in the Lower and Higher PB segment 2020

It can be seen that product use in the lower and higher segment differs remarkably only in one point: significantly more single shares are used in the higher segment than in the lower segment. While they make up almost half of the investment proposal in the higher segment, it is only around a quarter in the lower segment. This increased portion of single shares in the higher segment is primarily at the expense of ETFs and passive funds, which are accordingly used significantly less than in the lower segment. In our opinion, this reflects that the use of many single shares is often perceived as a quality feature by wealthy German clients. From their point of view, it documents the profound knowledge of an asset manager about individual companies and is associated with a tailor-made solution. In contrast, funds are more likely to be perceived as "mass products".

Also with regard to product use the historical perspective offers some interesting insights, as the following figure shows:



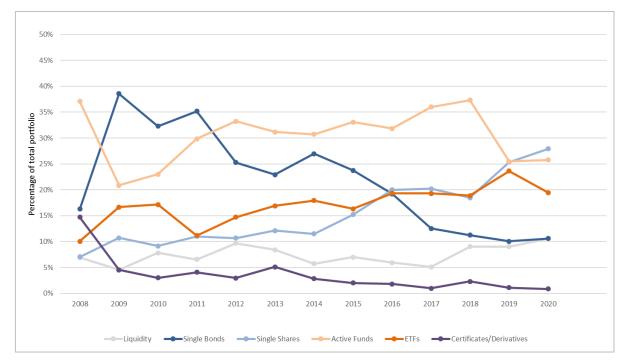


Figure 19: Average Product Allocation in Historical Perspective

First, we see that the use of single shares has increased steadily since we started our tests in 2008. Remarkably, this trend is even stronger than the increased use of ETFs. Their portion has also tended to increase, but not as strong and as clear as that of single shares. In contrast, the use of single bonds has steadily decreased since 2009. This is probably related to the fact that the portion of bonds in general is decreasing (see Figure 9), so that the remaining portion is often no longer large enough to be reasonably implemented with single bonds. Furthermore, you can see that the portion of active funds is historically much more stable than one might expect based on the usual reports about the fund industry. In the period from 2009 to 2019, the portion of active funds even increased. Otherwise we can see the continuous decrease of the portion of certificates in the aftermath of the financial crisis, as well as the already mentioned, very stable portion of liquidity.

2.4.2 Product Use in the Equity and Bond Portion

This chapter takes a closer look at product use in historical perspective in the two most important asset classes, starting with the equity portion:



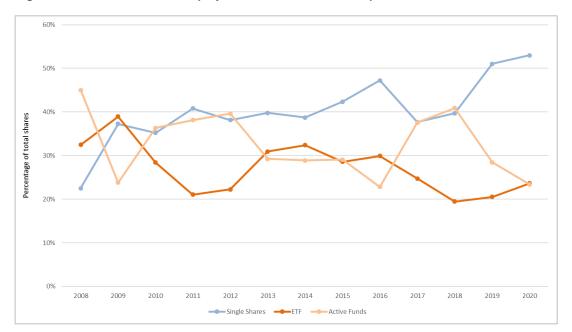


Figure 20: Product Use in the Equity Portion in Historical Perspective

In the equity portion, the above mentioned steady increase in the use of single shares can be seen, while both the portion of ETFs and that of active funds fluctuates between 20% and 40% over time without any clear trends being discernible.

In the bond portion, however, we can see the also already mentioned steady decrease in the use of single bonds, from which both ETFs and active funds seem to have benefited equally, as the following figure shows:

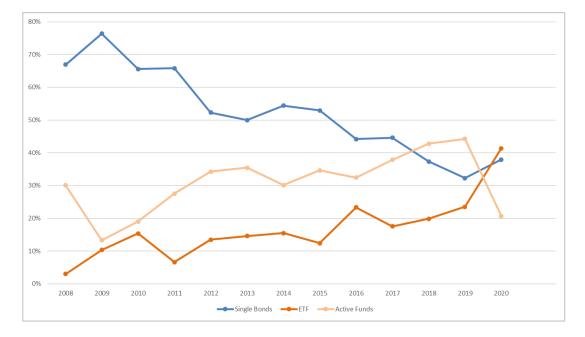


Figure 21: Product Use in the Bond Portion in Historical Perspective



From this historical perspective, this year's significantly higher portion of ETFs compared to active funds seems to be a special effect. Perhaps it indicates that in a year of crisis like the current year, ETFs will be preferred to active funds. However, this is a hypothesis that needs to be checked in the future. At least the fact that a similar pattern in product use could be observed in the crisis year 2009 speaks for it.

2.4.3 Highest weighted products in different categories

In the following, the highest weighted individual securities across the two test formats can be seen in the most important product categories. In doing so, only those securities are taken into account that have been used by at least two different asset managers (the number of asset managers who have used a specific security can be seen in the following tables under "Quantity"). We start with single shares.

Figure 22: Highest weighted Single Shares⁶

Ranking	Asset	ISIN	Average Weight	Quantity
1	Amazon Com Ord Shs	US0231351067	3,2%	8
2	PayPal Holdings Ord Shs	US70450Y1038	2,6%	9
3	Alphabet Ord Shs Class A	US02079K3059	2,5%	9
4	Apple Ord Shs	US0378331005	2,4%	4
5	Microsoft Ord Shs	US5949181045	2,3%	24
6	RECKITT BENCKISER	GB00B24CGK77	2,2%	4
7	Mastercard Ord Shs Class A	US57636Q1040	2,2%	5
8	Home Depot Inc.	US4370761029	2,2%	4
9	Atos Ord Shs	FR0000051732	2,1%	4
10	SAP Ord Shs	DE0007164600	2,0%	23

This table is basically a reflection of the dominance of the technology sector outlined above (see Figure 12), as well as the historically increased importance of the US market (see Figure 11). The top 5 are all members of the NASDAQ 100, and with Atos and SAP there are two other technology companies in the top 10. Microsoft and SAP are also the most frequently used single shares. Overall, this ranking gives the impression that well-known blue chips are preferred and that historic market trends have a major impact on current stock selection. The next table shows the ranking for equity ETFs.

Figure 23: Highest weighted Equity ETFs

Ranking	Asset	ISIN	Average Weight	Quan	tity
1	SPDR S&P 500 UCITS ETF	IE00B6YX5C33		6,8%	2
2	Xtrackers MSCI World Information Tech UCITS ETF 1C	IE00BM67HT60		6,7%	2
3	Xtrackers Euro Stoxx 50 UCITS ETF 1D	LU0274211217		4,2%	3
4	UBS S&P 500 ESG ETF	IE00BHXMHK04		4,1%	2
5	iShares STOXX Europe 600 UCITS ETF (DE)	DE0002635307		4,0%	2
6	iShares MSCI World Small Cap UCITS ETF USD Acc	IE00BF4RFH31		3,9%	3
7	SPDR MSCI EM Asia UCITS ETF	IE00B466KX20		3,5%	2
8	iShares NASDAQ-100® UCITS ETF (DE)	DE000A0F5UF5		3,4%	4
9	Amundi Index MSCI Emerging Markets-UCTS ETF DR (D)	LU1737652583		3,3%	2
10	Xtrackers MSCI World Health Care UCITS ETF 1C	IE00BM67HK77		3,1%	3

As is to be expected, we find here ETFs on the overall markets in Europe, the USA, Asia and the Emerging Markets. In addition, sector ETFs in the two most strongly represented industries (technology and healthcare) make it into the top 10. Perhaps most noteworthy is that this ranking also includes an ESG-optimized ETF and a factor ETF on global small caps. We continue with the ranking for bond ETFs and passive funds.

⁶ Please note that only the weights of stocks that were assigned as single stocks were evaluated here, i.e. not the weights of those stocks in active funds or ETFs.



Ranking	Asset	ISIN	Average Weight	Quan	itity
1	iShares € Corp Bond ESG UCITS ETF EUR Inc	IE00BYZTVT56		9,32%	
2	Dimensional Global Short Fixed Income EUR Dis	IE00B3QL0Y14		5,60%	2
3	SPDR Bloomberg Barclays 0-3YEuro Corp Bd UCITS ETF	IE00BC7GZW19		4,24%	;
4	UBS Sustainable Develop. Bank Bonds	LU1852211991		4,07%	2
5	LYXOR CORE US TREASURY 10+Y (DR) UCITS ETF - USD DIS	LU1407890620		3,81%	1
6	Xtrackers II iBxx Euzn Gv BY Plus UCITS ETF 1C	LU0524480265		3,42%	{
7	iShsll-EO C.Bd 0-3yr ESG U.ETF	IE00BYZTVV78		3,36%	:
8	iShares Corp Bond Large Cap UCITS ETF EUR (Dist)	IE0032523478		3,00%	2
9	iShares € High Yield Corp Bond UCITS ETF EUR(Dist)	IE00B66F4759		2,77%	!
10	iShares € Covered Bond UCITS ETF EUR (Dist)	IE00B3B8Q275		2.76%	

Figure 24: Highest weighted Bond ETFs / Passive Funds

With regard to debtor quality, the focus here is on corporate bond ETFs across all ratings, preferably with short terms. The only dedicated long-term ETF among the top 10 is a US Treasury ETF. It seems noteworthy here that there are three products with dedicated ESG optimization among the top 10, including the most highly weighted product.

When we get to active funds now, it is initially noteworthy that we cannot make a top 10 for either equity or bond funds, as there are only a few funds that meet the requirement to be used by at least two different asset managers. However, this applies to the following five or four equity funds (two are simply different share classes of the same fund):

Figure 25: Highest weighted Active Equity Funds

Ranking	Asset	ISIN	Average Weight	Quantity
	1 Vontobel Fund mtx Sust Emerging Mkts Leaders A	LU0571085330	5,05%	2
	2 Candriam SRI EquityPacific - I JPY Acc	LU1434526627	4,78%	2
	3 Vontobel Fund mtx Sust Asian Leaders (ex Japan) I	LU0384410279	3,88%	2
	4 Vontobel Fdmtx Sust.EM Lead. Act.Nom.Al Ca.(INE)	LU1717117979	2,96%	2
	5 Vontobel Fdmtx Sust.EM Lead. Actions Nom.I Cap.	LU0571085686	2,34%	2

It is noticeable that this list only contains ESG-optimized funds, which underlines once again the importance of this subject. It is also remarkable that these are exclusively funds with an investment focus in the Asia/Pacific region or the Emerging Markets. This reflects that investments in these regions are never made with single shares and therefore only with active or passive funds.

Finally, there is the list of the four active bond funds that meet the criterion to be used by at least two different asset managers.

Figure 26: Highest weighted Active Bond Funds

Ranking	Asset	ISIN	Average Weight Quantity
1	Schroder ISF EURO Corp Bd C Dis AV	LU0552054859	4,36% 2
2	Nordea 1 - European Covered Bond AI EUR	LU0733665771	1,73% 3
3	Aramea Rendite Plus PF	DE000A141WC2	1,71% 2
4	VF Emerging Markets Local Currency Bond A USD	LU1683487208	1,14% 2



2.4.4 ETF use in detail

In the following we take a closer look at this year's use of ETFs. The following figure shows for both segments the extent to which ETFs have been used in the various asset classes, whereby the weights of the respective asset classes are taken into account.

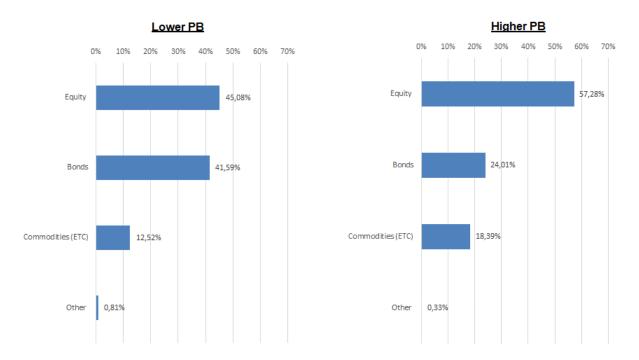


Figure 27: ETF Use in Different Asset Classes in the Lower and Higher PB Segment 2020

This shows an interesting difference between the investment proposals in the lower and higher segments: While in the lower segment ETFs are used almost to the same extent in the equity and bond portions, in the higher segment ETFs are used significantly more in the equity portion than in the bond portion. Given the fact that the use of single bonds is almost the same in the lower and higher segment (see Figure 18), this means that significantly more active funds are obviously used in the bond portion of the higher segment than in the lower segment. This could mean that the ETF use in the higher segment is more specifically geared towards the question, in which markets do you have the best chances of generating added value through active management.

An interpretation along these lines is also supported by the following figure on the extent of ETF use in the various regions.



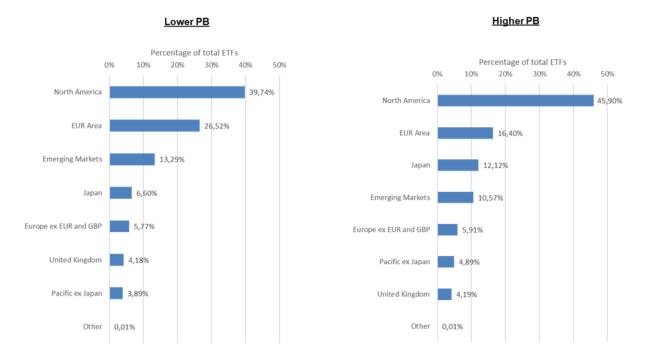


Figure 28: ETF Use in Different Regions in the Lower and Higher PB Segment 2020

These numbers must of course be seen in the light of the general portions of the different regions. (see Figure 10). However, there are interesting differences between the lower and higher segment with regard to North America, the Euro area and Japan. In the higher segment ETFs are used significantly more for North America and Japan, and significantly less for the Euro area. Given the fact that significantly more single shares and significantly fewer ETFs are used in the higher segment in general (see Figure 18), which means that stock picking is expected to add value especially in the Euro area.

2.5 Historical Performances

In the following, we present figures on the historical performance of the investment proposals, as presented by the respective asset managers themselves in the customer documents. In the context of a mystery shopping based investigation, this is the only way to receive performance data, as most proposals are internal model portfolios, the actual historical performance of which is only known to the respective asset managers themselves. An attempt to approximate the actual historical performance by back-calculating today's portfolio composition would be misleading, as the following data will clearly show. Only in exceptional cases and only in the lower segment, it happens that the proposed portfolio corresponds exactly to a public investment fund, so that the historical performance could be checked externally.

The way in which the historical performance is presented in the customer documents of the various asset managers varies greatly. Significant differences arise of course with regard to the length of the historical period, but also with regard to segmentation (annual vs. overall performance), accuracy (exact numbers vs. charts) and the consideration of costs (before, fully or partly after costs). Hence, it is not trivial to juxtapose the historical performances of the various asset managers in a meaningful way. In view of this, we have decided to limit the analysis of the historical performances to the 20 customer documents from which an annual performance after costs for the period from 2015 to 2019 can be clearly taken. These annual performances are compiled in the following table together with a simple benchmark. Its equity exposure is based on the current median equity exposure of the 20



performance series (56% MSCI ACWI € Net Return, 44% iBoxx € Overall TR, annually rebalanced, minus 20 bp p.a. according to average product costs, see Figure 31).

The second column shows which segment the respective performance series belongs to, and the third column shows the equity exposure of each portfolio at the time of this year's test. Via this column,the table is also sorted in descending order.

Case	Test	Current Equity Exposure	2015	2016	2017	2018	2019
1	Lower PB	72%	7,10%	3,20%	5,10%	-14,60%	21,50%
2	Higher PB	72%	11,20%	1,50%	11,80%	-5,20%	23,70%
3	Higher PB	70%	7,63%	3,49%	8,87%	-9,81%	20,41%
4	Higher PB	70%	5,84%	4,94%	5,44%	-6,26%	20,04%
5	Lower PB	67%	7,61%	1,64%	4,37%	-9,66%	23,98%
6	Higher PB	65%	3,70%	0,51%	4,87%	-10,16%	17,29%
7	Higher PB	65%	7,89%	-0,65%	9,80%	-3,90%	13,39%
8	Higher PB	60%	7,95%	7,09%	8,41%	-7,57%	21,79%
9	Lower PB	58%	6,88%	7,43%	4,51%	-4,65%	23,19%
10	Higher PB	57%	3,90%	1,11%	8,19%	-8,52%	17,80%
	Benchmark	56%	5,15%	7,47%	5,03%	-2,74%	18,63%
11	Higher PB	56%	6,51%	3,49%	5,53%	-6,62%	16,19%
12	Lower PB	52%	7,22%	1,10%	5,78%	-4,86%	18,84%
13	Higher PB	52%	7,03%	0,91%	5,59%	-5,05%	18,65%
14	Lower PB	51%	-1,12%	-0,48%	6,98%	-11,20%	10,28%
15	Lower PB	50%	7,60%	5,90%	7,30%	-4,50%	21,30%
16	Lower PB	49%	0,09%	-0,88%	2,56%	-11,16%	10,66%
17	Lower PB	43%	4,00%	-2,00%	5,00%	-6,00%	12,00%
18	Higher PB	41%	-0,12%	3,81%	3,93%	-10,19%	15,34%
19	Lower PB	39%	5,00%	2,10%	4,00%	-5,50%	12,50%
20	Lower PB	36%	2,10%	3,02%	3,91%	-4,97%	13,40%

Figure 29: Annual Performances after Costs in the Period 2015 to 2019 in both Segments

Comparisons with the benchmark can of course only be made very cautiously, as the benchmark is very simple. In our opinion, however, it can at least be said that in 2015, 2017 and 2019 the usual mixed picture emerges when a group of similar portfolios is compared to a benchmark: we find overand underperformers whose average returns roughly match the benchmark. In 2016 and 2018, on the other hand, the vast majority of asset managers seems to have been surprised by market developments, as the benchmark return in both years is significantly better than the average return of the portfolios.

Much more interesting about this table, however, seems to us that the numbers indicate a very active management of most of the proposed portfolios, apparently fully exhausting their tactical bandwidths. In this respect, the current equity exposure seems to be more of a snapshot. Let us consider case 2 as an example: with 23.7%, this portfolio had the second-best performance in 2019, which is very plausible in view of an equity ratio of over 70% in a year with well-performing equity markets. In the previous year, however, the same portfolio lost just over 5% in poorly performing equity markets. That means, most likely the portfolio had a significantly lower equity exposure in 2018, which in retrospect was a good decision. The opposite can be observed, for example, in cases 14 and 16: both currently have equity exposures of around 50%, but recorded the second and third highest losses in 2018,



which strongly suggests that these portfolios had significantly higher equity exposures in 2018 which, in retrospect, was a bad decision.

This observation is also supported by the following illustration, for which we have compared the annual returns of the portfolios of the upper half (equity exposure > 56%) with the annual returns of the portfolios of the lower half (equity exposure \leq 56%) with box plots. If most portfolios were managed quite closely along their current equity exposure, then the box plots of the two groups should be quite far apart in the individual years (the lower half should benefit significantly less from "good" equity years and should also suffer less from "box", as you can see, that is not the case. Instead, with the exception of 2019⁷ the box plots of the two groups overlap very much in all years, which means that most portfolios change their belonging to the offensive or the defensive group from year to year. That suggests a very active management.



Figure 30: Annual Performances of Portfolios with Currently High vs. Low Equity Exposure

2.6 Costs

The MiFID II regulations on cost transparency that came into force in Germany in 2018 have meant that the total costs of an asset management mandate can now be found quite clearly in customer documents, which was not always the case in the past. The average asset management and product costs as well as their range in the lower and higher segment are shown in the following tables. Reading these tables, please note the following:

- The figures for the "all-in fee" refer only to those cases in which such a fee was explicitly offered (which was always the case in the higher segment⁸). Accordingly, the figures on the asset management fee relate to those cases in which this fee has been shown as a separate cost component instead.
- In both cases, the figures for "product and other costs" only include those costs that are not included in the "all-in fee" or asset management fee.
- Consequently, in both cases, the "total costs" are the sum of the all-in fee or asset management fee and the product and other costs.
- If a performance fee is charged, this is taken into account assuming a moderate outperformance of the relevant benchmark.

⁷ This exception can probably be explained by the fact that the performance in 2019 is still to some extent explained by the current equity exposure.

⁸ For this reason, the average total costs in the lower segment are not equal to the sum of the average all-in fee and average product (and other) costs, but they are in the higher segment.



- Sometimes asset management is not proposed for the entire investment amount, but only for a part of it (this year also once in the lower segment). In such cases, the asset management fee is calculated on a pro rata basis and the pro rata product costs are added for the remainder.
- All figures are without taking transaction costs into account.

Figure 31: Mean, Minimum and Maximum costs in the Lower and Higher PB Segment 2020

Lower PB

Type of costs	MEAN	MIN	MAX
All-In-Fee p. a. (if offered)	1,53%	1,08%	2,02%
Product and other costs p. a.	0,49%	0,01%	2,91%
Asset Management Fee p. a. (if separated)	1,16%	0,60%	1,43%
Total costs p.a. (without transactions)	1,75%	1,20%	3,51%

Please note that the maximum value of the product and other costs is an outlier that skews the mean upwards. The median of the product and other costs is 0.24%.

Higher PB

Type of costs	MEAN	MIN	MAX
All-In-Fee p. a. (offered in all cases)	1,02%	0,70%	1,30%
Product and other costs p. a.	0,17%	0,00%	0,41%
Asset Management Fee p. a. (not separated)			
Total costs p.a. (without transactions)	1,19%	0,92%	1,67%

We can see that in the lower segment the overall cost level is higher and the ranges are wider. The extreme range of product costs in the lower segment can be explained by the fact that also in this segment, pure single securities portfolios are sometimes proposed. On the other hand, mixtures of different multi-asset funds are sometimes proposed, keeping the asset management fee relatively low, but generating high product costs.

The following figure shows the development of the average costs in the lower PB segment in historical perspective:

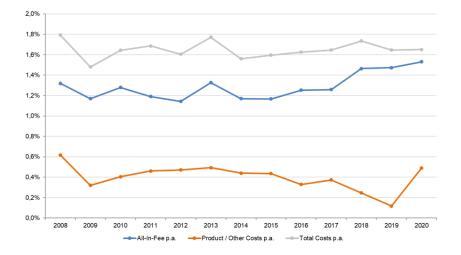


Figure 32: Average Costs in the Lower PB Segment in Historical Perspective



It can be seen that the total costs have remained fairly stable over the years in a range between 1.5% p.a. and 1.8% p.a., although product costs have tended to fall since 2013, due to the increased use of single stocks and ETFs (see Figure 19). This means that the asset managers have apparently succeeded in enforcing higher fees for asset management, which is also indicated by the development of the all-in-fee since 2014.



3 Conclusion

We see the essential results of the present investigation about asset management in German private banking in the following findings:

The "active paradox" in asset management can be viewed in a more differentiated manner based on the results available: It may be true that actively managed funds are viewed critically in many investor and influencing groups today (e.g. institutional investors, research institutions, private investors protection associations, finance media, foundations, high net worth individuals, family offices). However, this tarnished reputation does not seem to go so far that active funds are rejected in an undifferentiated way as an entire product class. Accordingly, the historical trend away from active funds is not as clear and strong as it sometimes may seem.

Furthermore, the meaning of "active investing" as a principle of action does not seem to be questioned. Instead, the reference to "active management" still seems to be a powerful narrative on a marketing level, also (or especially) in the higher PB segment. On a technical level, it seems to have been recognized that active management on two levels - on the level of the portfolio and on the level of individual products - can quickly become inefficient, so that differentiations have to be made here as well. These differentiations can be seen in the data. In the majority of cases, there is apparently enough scrutiny as to which asset classes or markets are most likely to generate added value through active management and where this is not the case.

However, the present study also makes clear that it is another question of how such demanding issues can best be explained to a customer. The scientific approach seems to be just one of several paths that is not often or only partially followed. If this path was not followed, that does not mean, of course, that the recommended portfolios were constructed without any scientific claim. Instead, such a claim is mostly recognizable.

The study also reveals room for improvement in some areas. For example, the look at historical developments shows cyclical behavior and performance chasing, for example with the recently increasing weighting in the US stock market, in big tech and health care, as well as in gold. We were also surprised by the low weighting of emerging markets in both segments, which cannot really be justified from a technical point of view. On the other hand, we noticed positively in the bond segment that the necessarily increased risk there apparently did not lead to an excessive shift in high yield bonds, but rather an attempt was made to get by with a moderate increase in risk for corporate bonds.

We were also surprised - albeit on a regulatory level - by the great heterogeneity at the level of performance reporting. Here, too, there is obviously room for improvement with some asset mangers. In view of the very active way in which most portfolios were apparently managed, it might also be helpful to include more information in the customer documents about the extent and duration of the utilization of the tactical bandwidths.

Finally, the present study has also shown the enormous importance that the subject of sustainability and ESG has acquired in the last two years in particular. We have made it clear that one currently still encounters very heterogeneous theoretical and methodological approaches in this field, which are also reflected in the customer documents of the asset managers. In our opinion, it will undoubtedly be necessary for everyone involved in investment advisory to take a clear position on this issue in the coming years.



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