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How has the investment behavior of high-net-worth individuals changed as a result of the corona pandemic?

Change in risk perception and investment behavior of high-net-worth individuals due to the pandemic and the related crisis

Author team

WHU – Otto Beisheim School of Management
Institute of Family Business and Mittelstand
Burgplatz 2
56179 Vallendar, Deutschland

Prof. Dr. Nadine Kammerlander
Co-director | WHU
nadine.kammerlander@whu.edu

Sonia Mair, MSc
Doctoral student | WHU
sonia.mair@whu.edu

Notes regarding the following study

 The statements of this study need to be classified purely academically; the study does not contain any investment advice.

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Executive summary

What are high-net-worth individuals?

High-net-worth individuals (HNWIs) commonly refer to people who own liquid investable assets valued at 1 million US-Dollars or more. Even though there is no legal or official definition of HNWIs, it is widely understood to include liquid assets only, such as money held in a bank account, and does not include primary residences, collectibles, consumer goods, and durables (Forbes, 2023).

Investment behavior of high-net-worth individuals (HNWIs)

When looking at how HNWIs invest their money, it is noticeable that they choose to invest differently than private individuals with fewer investable assets. The following six points differentiate HNWIs' investment behavior:

1. Different investment objectives: In the tradeoff between capital preservation and capital growth, HNWIs often have sufficient wealth that they can afford to take on more risk in pursuit of capital growth.
2. HNWIs can invest with longer time horizons as they can tie up more assets and thus better withstand short-term market fluctuations.
3. HNWIs have higher diversification in terms of asset allocation, sector diversification, and more alternative assets.
4. HNWIs often have their portfolios actively managed by professionals.
5. Estate planning motives, including tax planning, can be part of HNWIs' goals.
6. HNWIs may have philanthropic objectives.

Investing in times of crisis

In times of crisis, a change in investment behavior is often noticeable. The initial reactions to a crisis can vary depending on the crisis type and severity, as well as the individual investor's risk tolerance, investment goals, and overall market outlook. The following changes may occur in times of crisis (1) a shift towards defensive investments, (2) a reduction in equity investments, (3) an increase in cash holdings, (4) opportunistic investment, (5) a focus on long-term investing, and (6) a "wait and watch" approach.

How has investment behavior and engagement changed as a result of the pandemic?

- Almost 40% of the surveyed individuals indicated that their investment behavior changed as a result of the corona pandemic.
- Roughly 37% engage themselves slightly more or much more with their investments during times of crisis.
- Underlying reasons for this shift in engagement are: (1) shift to a more long-term focus, (2) higher liquidity or income, (3) lower liquidity or income, (4) more time, (5) viewing the crisis as an opportunity, (6) risk management, (7) a shift in priorities.
- Investment behavior during the crisis changed in the following ways: 58% added additional investments to their portfolio in asset classes they had previously not invested in. 56% opted for shifting the weighting of their existing investments, while 44% aimed for more geographic diversification.
- Furthermore, investments through digital channels as well as sustainable investments, gained popularity. Lastly, 19% of surveyees changed their investment behavior by consulting other experts they had previously not consulted.
- The results indicate that there was a shift in all asset classes, with the exception of hedge funds. Especially direct entrepreneurial investments have decreased as a result of uncertainty and the risky nature of this asset class.

- Additionally, the percentage of shares and bonds as an asset class increased slightly, indicating that individuals did not panic-sell their assets.
- The ratio of real estate investments increased significantly. Our results show a 10% increase in real estate investment in our sample.
- Moreover, the liquidity rates were not increased but unintuitively decreased, indicating a shift to other asset classes. Investors potentially use the opportunity to purchase other asset classes at a discount.
- Cryptocurrencies/ -assets decreased as part of HNWIs' portfolio due to their inherently risky nature and the volatility in the crypto markets.
- Lastly, investors increased their investments in collectibles (e.g., art).

Why did the investment behavior change?

- The two most common reasons are "optimization of the investment strategy" and "emergence of new investment opportunities".
- Additionally, the following reasons were often named: different risk/market assessments, a new focus on, e.g., health and wellbeing, and more equity investments/ start-ups.

Risk perception and investment objectives

- In order to measure the risk perception of the individuals' investments and how this may have changed as a result of the corona pandemic, we used an academically validated scale.
- The risk-related results are striking. In every parameter of the risk scale, the current level of influence of the risk factor was rated above the level of the same factor before the pandemic. Especially "The possibility of a very large loss relative to the money invested" and "Lack of confidence in the future development of the economy and/or the stock market," were, on average, rated with a much higher score currently compared to before the pandemic.
- An overall increase in the perception of risk is visible. We have observed a 10.5% increase in risk perception now compared to before the pandemic. This indicates that individuals perceive more risk when making investment decisions than before the pandemic.
- Lastly, we took an overall look at how objective-oriented the investment behavior of our target group is. Objective-oriented investing refers to an investment approach that seeks to align the investment portfolio with the specific goals and objectives of the investor. It considers an investor's risk tolerance, time horizon, and specific financial objectives when constructing the investment portfolio. The results indicate a medium level of objective-oriented investment within our target group.

Preface by the authors

The COVID-19 pandemic has had a profound impact on global economies and financial markets. High-net-worth individuals, who typically have significant investments in various asset classes, have not been immune to the effects of this crisis. As researchers, we were interested in examining how the pandemic has influenced the investment behavior of these individuals, with a particular focus on changes in risk perception and asset allocation.

High-net-worth individuals can differ significantly in the way they choose to invest their money in terms of numerous aspects, including investment objectives, diversification, asset allocation, or risk management. High-net-worth individuals typically have a more diverse investment portfolio compared to other investors, with a greater allocation towards alternative investments such as real estate, private equity, and hedge funds. They are also more likely to take a long-term approach to their investments and seek out opportunities that offer the potential for higher returns. Further, they may be more risk-tolerant than other investors and may be more willing to invest in emerging markets, high-risk ventures, or non-traditional assets.

Knowing this, it is fascinating to investigate how a crisis such as the pandemic has affected this group of private investors and provide a comprehensive analysis of their investment behavior. We hope that the insights presented in this study will be valuable for practitioners as they navigate the challenges and opportunities presented by the aftermath of the COVID-19 pandemic.

We have collected and analyzed data for the past ten months and would like to present the results of our study in this practical publication. If you have any questions or would like to discuss the results in more detail, please do not hesitate to contact the authors of this study. We would like to express our appreciation to LINUS for their financial support and to all our study participants. Without their openness and kindness, this study would not have been possible. Thank you again for your time and insights.

Vallendar, June 2023

Prof. Dr. Nadine Kammerlander

Sonia Mair, MSc

Table of contents

Introduction

High-net-worth individuals

High-net-worth individuals (HNWIs) commonly refer to people who own liquid investable assets valued at 1 million US-Dollar or more. Even though there is no legal or official definition of HNWIs, the assets are widely understood to include liquid assets only, such as money held in a bank account, and do not include primary residences, collectibles, consumer goods, and durables (Forbes, 2023). It can therefore be said that HNWIs have a significant amount of assets that they can invest, save, or spend.

HNWIs are a growing demographic. The number of HNWIs has been increasing worldwide in recent years, driven by factors such as economic growth, globalization, and technological advancements. Worldwide there are around 22.46 million HNWIs, 5.72 million of which live in Europe (Capgemini, 2022). In Germany, the number of HNWIs has increased by over 37% in the last 10 years and is estimated to reach 2.7 million by 2024 (Figure 1) (Knight, 2020).

HNWIs play a significant role in driving economic growth and innovation through many levers, such as investing in new businesses, creating new jobs, and supporting philanthropic causes. HNWIs come from a wide range of backgrounds and industries, and their interests and values may vary. Understanding their individual needs and preferences is crucial for understanding one's investment behavior or effectively serving this demographic.

HNWIs often have more complex financial needs, such as estate planning, tax planning, philanthropic giving, and investment diversification. They may require specialized financial services to help them manage their wealth. Their wealth originates from a multitude of sources. The most common sources are entrepreneurship, investments, inheritance, and executive compensation. In Germany, 40% of HNWIs' wealth originates from entrepreneurship, 35% inherited their wealth, and 10% owe it to income from employment. (Ströing, Grabka, & Lauterbach, 2016)

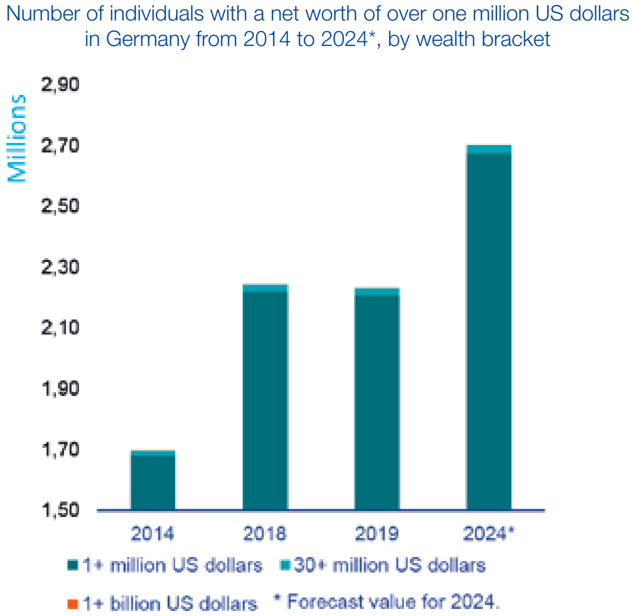


Figure 1: Number of HNWIs in Germany (Source: Statista)

Investment behavior of high-net-worth individuals (HNWIs) and family business owners

When looking at how HNWIs invest their money, it is noticeable that they typically choose to invest differently than private individuals with fewer investable assets. As HNWIs have more financial resources at their disposal, they may have different investment objectives and behaviors. One aspect to consider is the primary investment objective. Sometimes there can be a tradeoff between capital preservation and capital growth. Non-HNWIs may often prioritize capital preservation or protecting the value of their investments over capital growth or maximizing the returns on their investments. HNWIs, on the other hand, often have sufficient wealth that they can afford to take on more risk in pursuit of capital growth. They may therefore have a higher risk appetite as they may consider more wealth to be disposable and thus invest in riskier assets. Tied to this, they may also have a longer investment horizon as they are able to tie up more assets and thus be better able to withstand short-term market fluctuations (Veld-Merkoulova, 2011).

Additionally, portfolios of HNWIs are typically more diversified than those of non-HNWIs as they are able to spread their money over a wider range of assets. We consider and differentiate between five important dimensions. First, in terms of asset allocation, HNWIs typically invest in a wider range of asset classes, such as real estate, private equity, hedge funds, and commodities, in addition to traditional asset classes like stocks and bonds. This allows them to diversify across different types of investments and potentially reduce risk. Secondly, regarding geographic diversification, HNWIs often invest in various markets around the world, which can provide additional diversification benefits. For example, they may invest in emerging markets that have different economic cycles than developed markets. Third, in terms of sector diversification, HNWIs may also diversify their portfolios across various sectors of the economy. For instance, they may invest in technology, healthcare, and energy, among other sectors. Fourth, looking at risk management, HNWIs often use sophisticated risk management techniques, such as hedging strategies and alternative investments, to further diversify their portfolios. Lastly, looking at alternative investments in more detail, HNWIs often have access to alternative investments that are not available to non-HNWIs due to hurdles, including minimum investment thresholds or search and due diligence costs. These investments can provide additional diversification benefits and potentially higher returns, but they also come with higher risks. HNWIs additionally often invest in private companies or startups through private equity or venture capital funds. Private equity, for example, offers the opportunity for HNWIs and family business owners to invest as a limited partner and allows them to benefit from the high returns (Khoury et al., 2021). Real estate is another popular investment for HNWIs, with many investing in commercial properties, apartment buildings, or other types of real estate. Real estate investments can offer both income and appreciation potential.

Further, HNWIs often seek advice from one or more professional investment advisors to optimize their investment strategy and tailor it to their individual goals and risk appetites. Many HNWIs work with financial advisors or investment managers who actively manage their portfolios. These professionals use their knowledge and expertise to select individual stocks, bonds, or other investments that they believe will outperform the market.

Another important aspect to consider is estate planning. HNWIs often have estate planning objectives that influence their investment decisions. For example, they may prioritize investments that can be easily passed on to their heirs or that can help reduce the size of their taxable estates. And in general, HNWIs may consider tax planning when investing to minimize their tax burden. For example, they can opt for tax-optimized investment vehicles or manage their investments in a tax-efficient manner.

Lastly, philanthropic objectives need to be considered. HNWIs may have philanthropic objectives that influence their investment decisions. They may invest in socially responsible or impact-driven investments to support causes they care about or to align with their personal values.

Looking at the subcategory of HNWIs whose wealth originates from family businesses some potential differences can be outlined. Family business owners may invest their money differently than non-family business owners due to a variety of factors, including their personal values, business objectives, and family dynamics. First, family business owners may have a longer-term perspective on their investments, as they often want to ensure that their business can continue to support future generations of the family. This may mean investing in more conservative, stable investments that provide a steady income stream. However, it can also be argued that family business owners are often willing to take higher risks than non-family business owners because they typically have a deeper understanding of their business and its market environment. For example, they may be more willing to invest in riskier asset classes such as startups, real estate, or commodities in order to achieve higher returns as they believe in having a knowledge edge. Secondly, family business owners may invest their money with an eye towards intergenerational wealth transfer, as they may be looking to pass down their wealth to future generations of the family. This may involve setting up trusts or estate planning structures that allow for the aforementioned tax-efficient transfer of assets. Further, family business owners may also invest their money in ways that align with their business interests. For example, they may invest in industries or companies that are related to their core business, or they may invest in assets that can be used to support the business, such as real estate.

Additionally, they may also invest in ways that align with their family's values or history, such as investing in socially responsible or environmentally sustainable companies. Also, investments that have a tradition within the family may take precedence over the search and inquiry for new alternatives. Their personal investment decisions may also be influenced by the ways they navigate the crisis management in their family business (Welz et al., 2022).

In general, however, it should be noted that not all HNWIs invest in the same way and that the investment strategy always depends on individual objectives, preferences, and risk appetites.

Dimensions affecting investment behavior

Based on findings from prior research the following five factors have a decisive influence on the investment behavior of individuals, including HNWIs:

1. Gender, age, and life stage

Studies have shown that gender influences investment behavior. This is because the investment-making process, investment involvement, learning patterns, and socio-economic factors vary between genders (Hira & Loibl, 2008). For instance, men are more risk-tolerant, have longer investment horizons, and are more motivated by speculation when they invest than women, who are more motivated by the desire to enhance their income. In the decisional process men take more autonomous and informed decisions, are more optimistic and self-confident, while women tend to rely more on professional advice. Further portfolio characteristics are also influenced by gender, while portfolio liquidity and diversification are not influenced (Marinelli et al., 2017).

Also, age and life stage play a decisive role primarily as they influence disposable income and risk preferences (Charles & Kasilingam, 2013; Rolison et al., 2017). Studies have, for instance, shown that stockholding increases with age (Dow, 2009).

2. Financial literacy

Financial literacy may influence the investment decision and the assets that are selected (Rolison et al., 2017). Many individuals do, for instance, not feel comfortable investing in an asset class that they do not fully comprehend.

3. Market knowledge and experience

The knowledge and experiences that an investor has can also significantly shape their decisions. On the one hand, experienced investors may be more comfortable with market volatility and may have a better understanding of how to navigate different market conditions. On the other hand, novice investors may prefer to invest in more stable assets and may be more prone to making emotional investment decisions.

4. Personal values and beliefs

Personal values and beliefs affect all decision-making processes, including financial decisions. Understanding one's personal values and beliefs is crucial as it can help in creating an investment portfolio that aligns with one's personal and financial goals (De Bondt, 2005; Slager & Koedijk, 2007). Some may, for instance, only invest in ESG-compliant assets, while others do not wish to consider this aspect in investment decisions. Moreover, some investors may have a geographic preference due to origin or self-identification.

5. Risk preference

Arguably the most significant determinant of investment behavior is risk preference. One's risk profile influences the investment types one considers, what is selected within an asset class and also the desired time horizon (Finke & Huston, 2003). While risk-averse individuals prefer asset classes such as bonds or gold, risk-seeking individuals may lean more toward asset classes such as venture capital.

Risk perception

Financial risk perception refers to an individual's subjective assessment of the risk associated with an investment or financial decision. This perception is shaped by a variety of factors, including personal experience, knowledge, and emotional biases. Risk perception can vary widely between individuals, even in the same investment scenario, and can impact investment decisions significantly.

The measurement of financial risk perception can be complex, as it involves capturing the subjective perceptions of individuals. Several methods are used to measure financial risk perception, including self-reporting, behavioral experiments, and psychophysio-

logical measures.
Self-reporting methods typically involve the use of questionnaires or surveys that ask individuals to rate their perceived risk associated with specific investments or financial decisions. Behavioral experiments involve the use of hypothetical investment scenarios to assess how individuals respond to different levels of risk, and psycho-physiological measures involve the use of physiological markers, such as heart rate or skin conductance to assess an individual's level of stress or anxiety in response to financial risk. For this study, the self-reporting method was chosen.

Financial risk perception can impact investment behavior significantly. Individuals who perceive high levels of risk may be more risk-averse and avoid investing in high-risk assets, while those who perceive low levels of risk may be more likely to take on higher levels of risk. The impact of financial risk perception can be further influenced by cognitive biases, such as loss aversion or overconfidence, which can lead individuals to make suboptimal investment decisions. Additionally, changes in financial risk perception can impact investment behavior. For example, during times of market volatility, investors may perceive higher levels of risk, leading them to sell assets or avoid investing. Conversely, during periods of market stability, investors may perceive lower levels of risk, leading them to take on more risk or invest in riskier assets.

Investing in times of crisis

The COVID-19 pandemic has had a significant impact on the global economy and financial markets and can therefore be described as an economic crisis with financial market implications. The pandemic resulted in widespread business closures, job losses, and reduced economic activity, which in turn led to declines in corporate revenues and profits. This resulted in significant declines in stock prices and increased volatility in financial markets. Governments and central banks responded with a range of measures to support the economy and stabilize financial markets, such as fiscal stimulus programs, interest rate cuts, and asset purchase programs. These actions helped to prevent a complete financial market collapse and limit the damage to the broader economy.

In times of crisis, a change in investment behavior is often noticeable. The initial reactions to a crisis can vary depending on the type and severity of the crisis, as well as the individual investor's risk tolerance, investment goals, and overall market outlook. During a crisis, such as a recession, market crash, or global pandemic, investors may, for example, become more risk-averse and may seek safer investment options, and thus an overall shift towards defensive investments may occur. Investors may move away from riskier investments like stocks and invest in more defensive options such as bonds, cash, and gold. These investments are typically less volatile and are seen as safer during times of uncertainty. Some private investors become fearful and sell their investments very quickly in response to a crisis, which is referred to as panic selling. This can create a domino effect and cause market prices to plummet even further. Short selling can further facilitate this process and, in this case, was very present at the starting period of the corona pandemic.

Investors may also reduce their equity investments in favor of more conservative options. This is because equity investments can be more volatile during times of economic uncertainty and the lack of seniority of equity may be perceived as too uncertain. During a crisis, investors may also choose to increase their cash holdings to provide a cushion for potential financial difficulties. This, on the other side, may also be a way to take advantage of investment opportunities that may arise during a crisis.

Crises can create opportunities for investors causing opportunistic investment behavior. Some private investors may see a crisis as an opportunity to invest in undervalued assets or companies that are poised to benefit from the crisis. This approach can require a willingness to take on more risk and a deep understanding of the market dynamics at play.

Lastly, a focus on long-term investing may arise, aiming to neglect short-term fluctuations in the market. A so-called "wait and watch" approach can be taken by investors, who may choose to wait and watch the situation unfold before making any investment decisions. This can be a prudent approach, as it allows investors to gather more information and avoid making rash decisions based on short-term market fluctuations. Overall, investors tend to be more cautious during times of crisis, seeking to protect their assets and minimize risk.

Overview of the research study

Research questions

Building on the currently available research and the related research gaps, we have defined the following research questions:

1. What are the investment preferences of high-net-worth individuals?
2. How has the investment behavior of high-net-worth individuals changed as a result of the Corona pandemic?
3. Has the risk perception of high-net-worth individuals changed after the crisis?

Methodology

To answer the research questions, primarily a quantitative research design was chosen and enriched with additional qualitative elements. This research design enabled a deepened understanding of the changes in behavior and the underlying objectives and motives associated with these changes. An online survey was conducted over a period of ten months and targeted German HNWIs and individuals with a (family) business background. 183 individuals responded to the survey. The data was then cleaned, omitting individuals who did not fully complete the survey or did not match the target group. After this, 125 responses were used in the further data analysis. To additionally gain a deeper understanding of the investment behavior und the underlying rationales, 15 qualitative semi-structured interviews were conducted with the same target group. The interviews were one hour on average. The interviews started with general questions on how they choose investments before diving deeper into their perception of the crisis in terms of risk perception and asset allocation.

Overview of the results

Characteristics of the individuals surveyed

50% of the individuals surveyed indicated to be high-net-worth individuals, whilst 40% said they were – despite their (family) business background – not HNWIs (our comparison group). 10% indicated that they were not sure (Figure 2). For the analyses, we grouped the individuals that indicated not to be sure with the non-HNWIs group to ensure the isolated perspective of HNWIs' behavior.

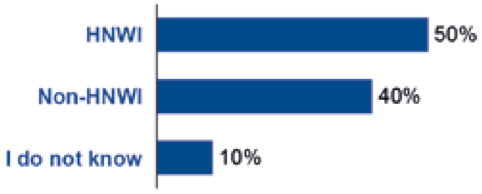


Figure 2: Identification of HNWIs

Further, the participants of the survey were predominantly male (79%). 21% were female, while none identified as diverse (Figure 3).

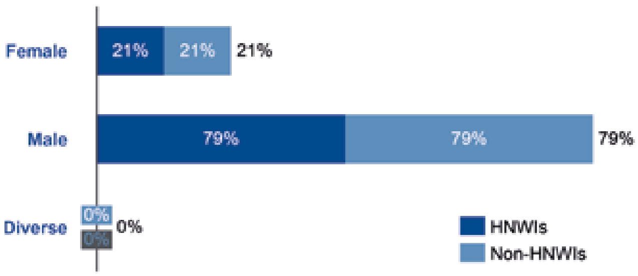


Figure 3: Gender of the surveyed participants

Overall, our data sample captures all relevant age groups (Figure 4). A third of all participants were between the ages of 35 and 45.

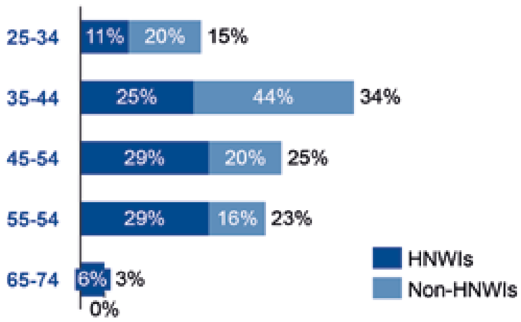


Figure 4: Age in years of the surveyed participants

The participants were furthermore asked about their highest educational degree. Overall, our dataset displays a very high level of education. 63% reported having completed a master's or a "Diplom" (i.e. German master-equivalent degree) as their highest educational degree. 21% indicated to have completed a doctorate or a higher educational degree. No one reported having no degree or a middle school diploma as their highest degree (Figure 5).

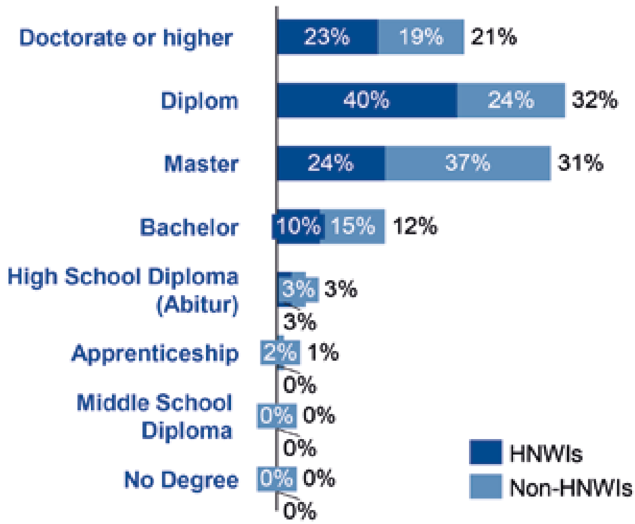


Figure 5: Highest educational degree

Regarding educational direction, 60% of the surveyed individuals were from a business background. 13% indicated to have studied within the field of humanities, while 10% were trained within a technical discipline and a further 10% within natural science (Figure 6).

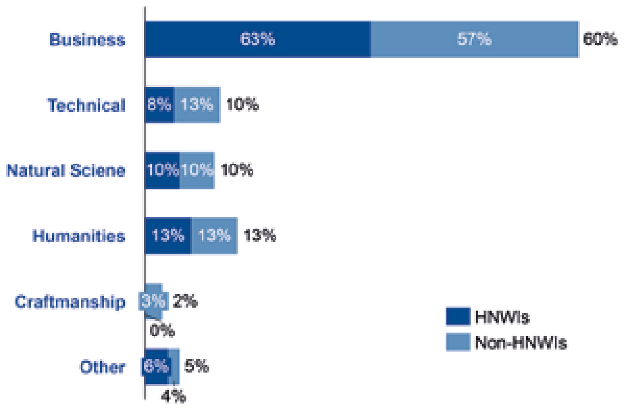


Figure 6: Educational direction

Furthermore, we inquired about the source of the individual's wealth. Undoubtedly, wealth can originate from multiple sources. Thus, it was possible to select more than one choice. 56% of the individuals indicated that income was one of their sources of wealth. 37% reported having gained parts of their wealth from a family business. 21% and 16% indicated to have made money through investments or speculations and non-family business companies, respectively (Figure 7).

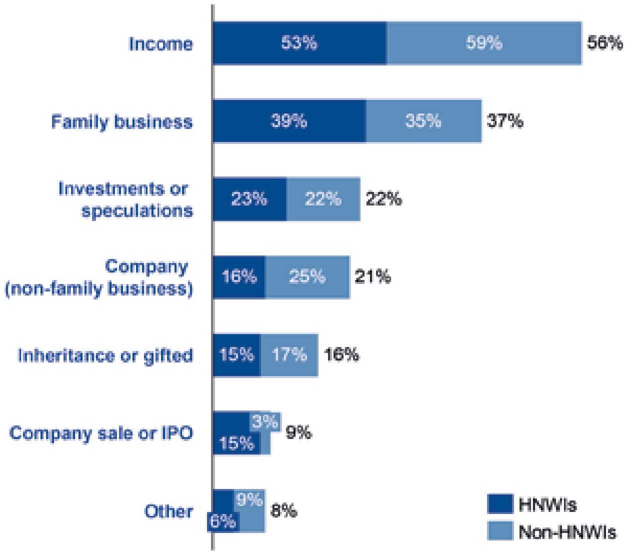


Figure 7: Source of wealth*

Investment behavior of the surveyed

To get an even better understanding of our target group, we inquired about the risk profile and the geographic preferences of our surveyees. The results show that the participants predominantly (59%) have a risk-tolerant orientation with their investments. 23% indicated having a risk-neutral approach, while 12% said to be very risk tolerant. It is noticeable that the HNWIs indicated to have a higher risk preference than non-HNWIs. The average value of HNWIs was 3.83, while non-HNWIs averaged a value of 3.67 on the risk self-assessment scale. Only 2% of the HNWIs indicated to be risk averse, while 12% of individuals who are non-HNWIs indicated to be risk averse.

*Multiple answers possible

Figure 8 graphically illustrates the risk preferences.

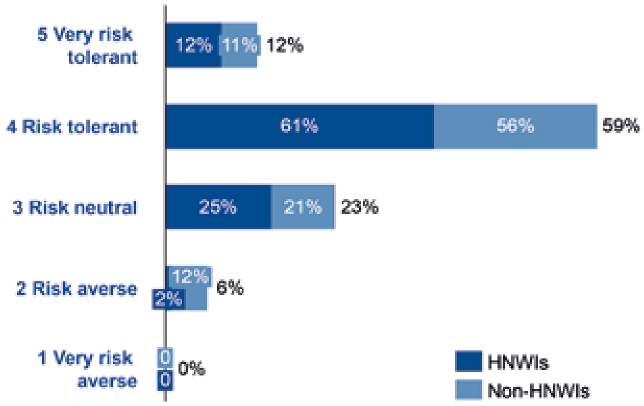


Figure 8: Risk preference

In terms of geographic investment focus, 100% of participants said to be invested in Europe. Also, North America and Asia are very popular among investors, with 68% and 52% of individuals investing in these regions, respectively. Figure 9 shows the geographic distribution.

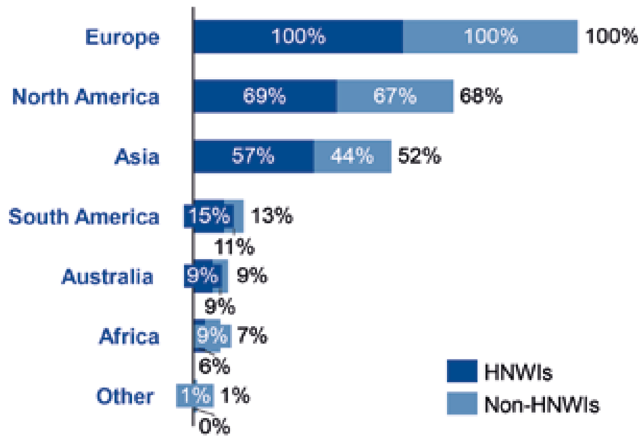
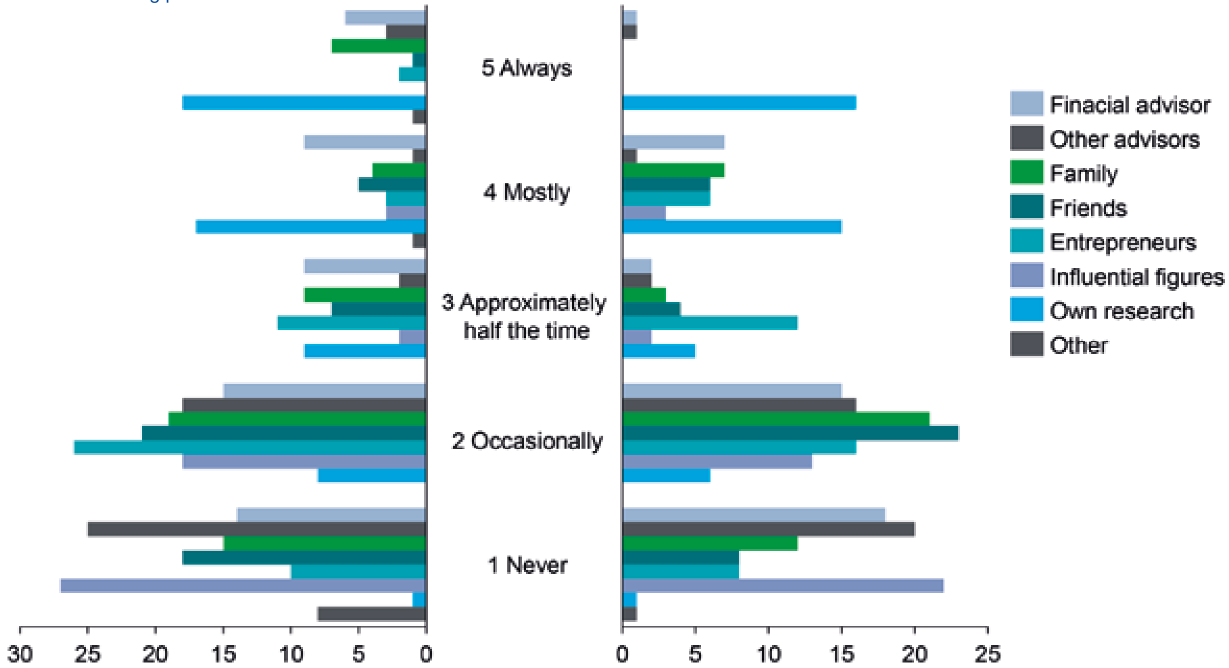


Figure 9: Geographic invested regions*

Additionally, we were interested to see whom the participants incorporate within their decision-making process. Figure 10 illustrates the results. The results show the high extent to which individuals rely on their own research. Not surprisingly, financial advisors also play a significant role. Family and (other) entrepreneurs were also commonly included within the investment decisions made. It is observable that HNWIs tend to include more individuals when making investment decisions.

Figure 10: Factors involved in the decision-making process



*Multiple answers possible

Thereafter, we inquired about who executed the investments. Again, as multiple investments may be made by different individuals, more than one answer could be selected. The results indicate that 89% of the respondents invest (at least parts of their investments) themselves. This is followed by bank advisors and financial advisors or managers, who make investments for 29% and 24%, respectively. For 8% of individuals a family member is involved in making investments. HNWIs tend to involve a bank or financial advisor to a higher extent (Figure 11).

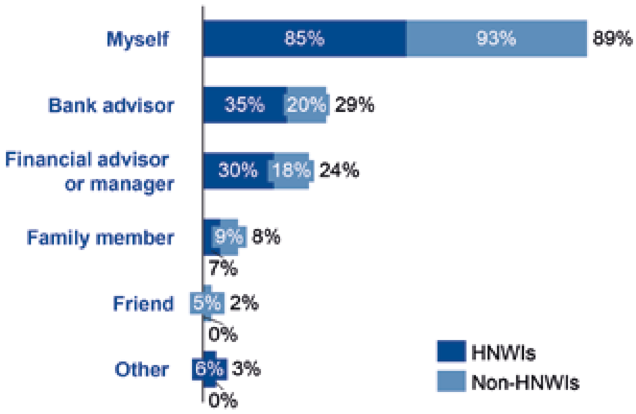


Figure 11: Execution of investments*

Lastly and quite surprisingly, there was overall no clear direction regarding the preference for personalized financial advice. Personalized financial advice often refers to a type of financial guidance that is tailored to an individual's specific financial situation, goals, and needs. This advice considers a person's income, expenses, debts, assets, risk tolerance, investment preferences, and other relevant factors. The objective is to develop a tailored strategy to reach financial objectives such as wealth accumulation. Individuals were asked to rate how much they value personalized financial advice. The results do not indicate a clear preference (Figure 12).

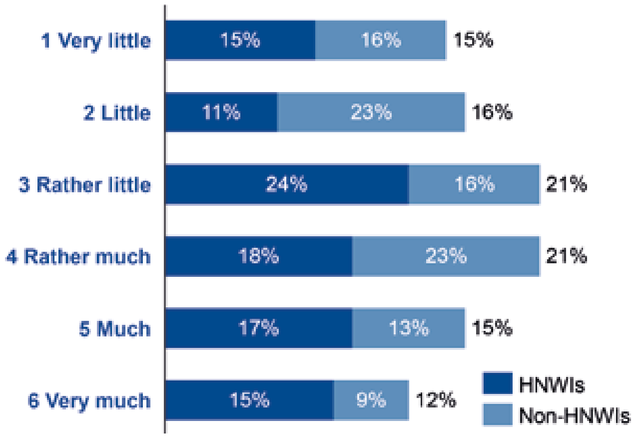


Figure 12: Preference for personalized financial advice

Change in investment behavior and engagement

Almost 40% of the surveyed individuals indicated that their investment behavior changed as a result of the corona pandemic. We inquired how much they engage themselves with their investments compared to before the pandemic. The results are visualized in Figure 13. They show that 37% concern themselves slightly more or much more with their investments. Only 7% concern themselves slightly less or much less (Figure 13). When asked why this is the case, a multitude of reasons were offered.

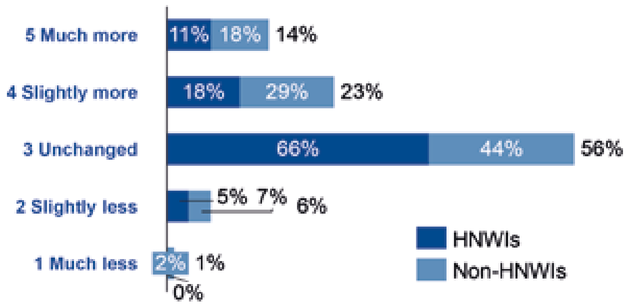


Figure 13: Change in level of engagement as a result of the covid pandemic

*Multiple answers possible

The 7 points changing engagement during the crisis

The following 7 reasons outline the most commonly mentioned motives for the change in engagement:

1. **Shift to a more long-term focus:**
   Many individuals mentioned shifting their focus from short term profits to a more medium to long-term focus.
2. **Higher liquidity or income:**
   Counterintuitively, many people indicated to have more liquidity available for investment purposes.
3. **Lower liquidity or income:**
   As one might expect lower liquidity was also commonly reported as reason for more engagement in investments.
4. **More time:**
   As many activities vanished during the pandemic, this opened up more time for investing. Through this many reported the engagement increased sustainably.
5. **Crisis as an opportunity:**
   As a result of the dynamics of the financial market (low, sometimes undervalued prices, high volatility, and uncertainty) great new investment opportunities arose for many. One respondent wrote: *"The crisis and the better entry prices in the stock markets offer very great opportunities to set the course now for wealth accumulation within the next 10-20 years."* Additionally, some even used the pandemic as an opportunity to start investing.
6. **Risk management:**
   As risk management is an important activity during a crisis, many reported having increased their engagement for risk management purposes.
7. **Shift in priorities:**
   Many indicated that their priorities have shifted as a result of the pandemic. Aspects such as building their business, a different professional focus, or a different private focus (e.g., children) lead individuals to shift their focus. One individual even said, *"Own life model questioned and adjusted".*

We further asked how the investment behavior has changed. The results shown in Figure 14 indicate that 58% added additional investments to their portfolio in asset classes they had previously not invested in. 56% opted for shifting the weighting of their existing investments, while 44% aimed for more geographic diversification. Furthermore, investments through digital channels gained popularity, as well as more sustainable investments. Lastly, 19% of surveyees changed their investment behavior by consulting other experts they had previously not consulted.

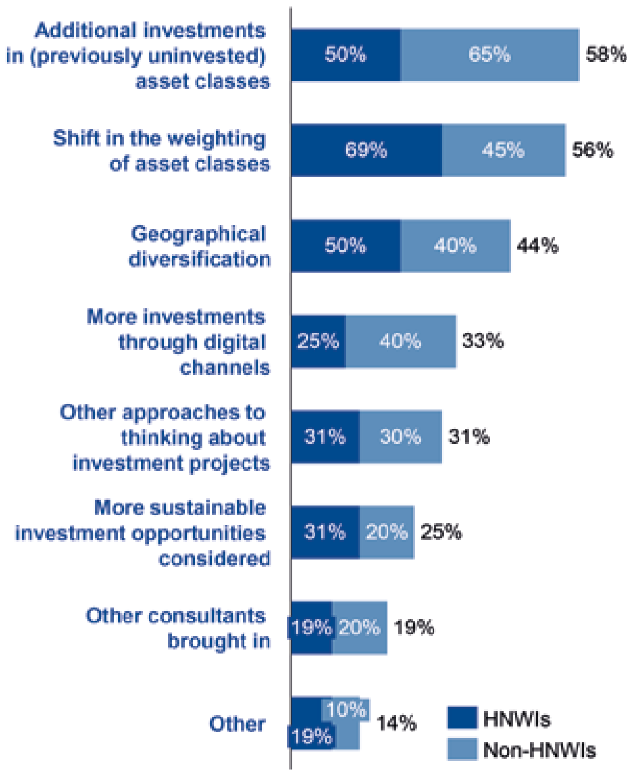


Figure 14: Change in investment behavior as a result of the Covid pandemic*

*Multiple answers possible

Knowing that the investment behavior of many investors has changed and how it has changed, we further investigated the reasons. Figure 15 gives a brief overview of some of the reasons for the changes.

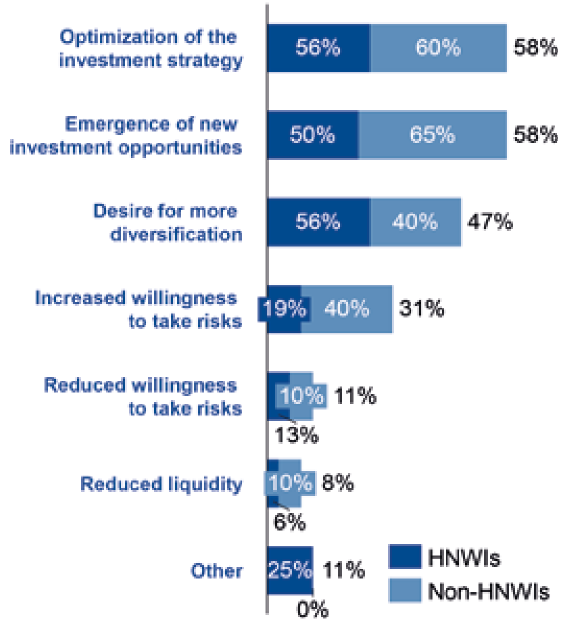


Figure 15: Reasons for change in investment behavior as a result of the covid pandemic*

The two most common reasons indicated were "optimization of the investment strategy" and "emergence of new investment opportunities". Reasons additionally named under the "other" category were, for example, different risk/market assessments, a new focus on, e.g., health and wellbeing, and more equity investments/ startups. The differences between HNWIs and non-HNWIs were minimal.

To dive one step deeper, we looked at how this optimization of the investment strategy translates to actual portfolio weighting and how this may have changed as a result of the pandemic. Figure 16 illustrates the results which indicate that there was a shift in all asset classes, with the exception of hedge funds. Especially entrepreneurial investments have decreased. This is equally true when looking at the subgroup of HNWIs. Some respondents have indicated that this change was a result of uncertainty and the risky nature of this asset class.

Additionally, the percentage of shares increased slightly, indicating that individuals did not panic sell their shares. When looking at HNWIs in isolation they firstly had a much higher percentage of stocks, averaging 41% prior to COVID. Currently they have slightly decreased this allocation to 36% on average. The percentage of bonds held in portfolios also slightly increased.

Interestingly, the ratio of real estate investments increased significantly. Our results show a 10% increase in real estate investment in our sample. This is even more pronounced for only HNWIs, who increased their real estate investments by approximately 14%. Surprisingly, the currency/ liquidity rates were not increased; instead, they were decreased, indicating a shift to other asset classes. Investors potentially used the opportunity to purchase other asset classes at a discount. This is also valid for HNWIs, however not as drastically. The average liquidity rate was 6.7% prior to the pandemic and has decreased to 4.4% currently.

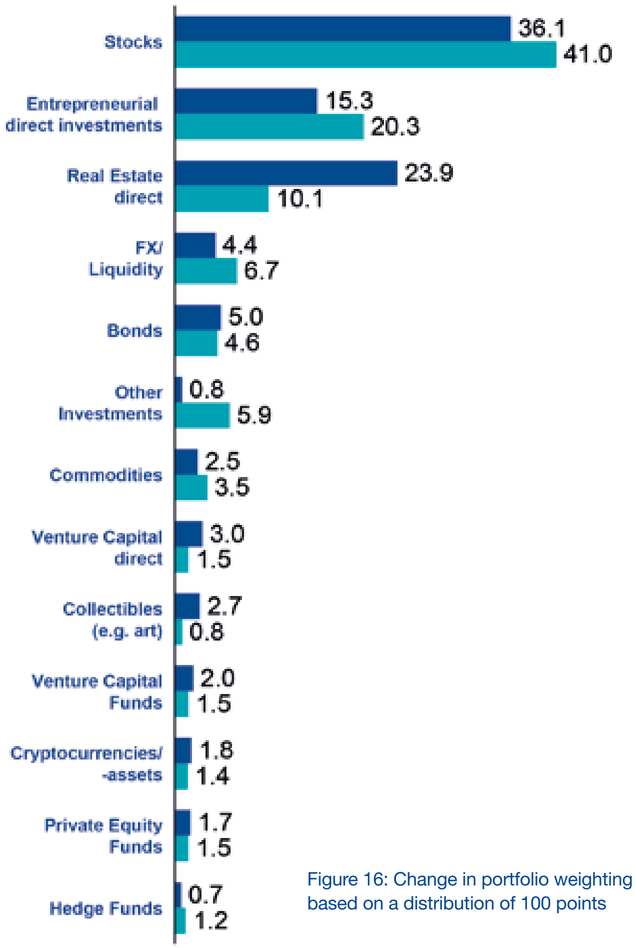


Figure 16: Change in portfolio weighting based on a distribution of 100 points

*Multiple answers possible

Additionally, it is noticeable that there was a decrease in cryptocurrencies/ -assets.

This can be corroborated by one of the interviewees stating:
"When the uncertainty increases, I first pull my money out of things that don't have an intrinsic value and that are not so easy to rap my head around" (Interviewee 4, CEO of a German Company).

Lastly, investors increased their investments in collectibles (e.g., art).

Risk perception and investment objectives

In order to measure how individuals perceive the risk of their investments and how this may have changed due to the corona pandemic, we used a validated scale from Vlaev et al. (2009). Individuals were asked to rate 15 factors that may affect their decision-making process. For each factor, they were asked to rate the extent to which their decisions were affected on a scale from 1 (not affected at all) to 5 (very much affected). Further, they were tasked with comparing this to how the factors had influenced them before the corona pandemic.

The results are striking. For every factor they could be influenced by, the current level was rated higher than before the pandemic. Especially, "The possibility of a very large loss relative to the money invested" and, "Lack of confidence in the future development of the economy and/or the stock market" were, on average, rated with a much higher score currently compared to before the pandemic. When looking at the scale overall, a clear heightening in the overall perception of risk is visible. In our data sample, we have observed a 10% increase in ratings between now and before the pandemic. This indicates that individuals perceive more risk when making investment decisions than before the pandemic. The results are illustrated in Figure 17. When analyzing the HNWIs separately the same holds true. The effect is slightly lower. The overall average is about 8.7%.

Lastly, we want to take an overall look at how objective-oriented the investment behavior of our target group is. Objective-oriented investing refers to an investment approach that seeks to align the investment portfolio with the specific goals and objectives of the investor. It considers an investor's risk tolerance, time horizon, and specific financial objectives when constructing the investment portfolio. To test this, we again used a validated scale by Rastogi and Gupta (2020). The results are visualized in Figure 18 and indicate a medium level of objective orientation. The scale averaged a value of 3.69/5.

The factor with the highest overall rating was, "I select investment opportunities that are consistent with my investment objectives". The items with the two lowest average ratings were: "I set a time frame for each of my investment goals to be achieved" and "I revise my investment portfolio (delete or add new investment options) to align it with my changing investment goals." This indicates that many investors are still willing to deviate from their preset goals or engage in investments without prior considerations about important details (e.g., time frame).

Looking at HNWIs in isolation all items were rated higher on average than by the non-HNWIs group. The average of this subgroup is 3,89/5. This indicates that HNWIs engage in a slightly higher level of objective-oriented investing.

Measurement of risk perception

Below are a series of 15 factors that could affect investment decisions. For each of these factors, the surveyed individuals were asked to consider the extent to which their decisions might be effected by them and how it was before the Corona pandemic.

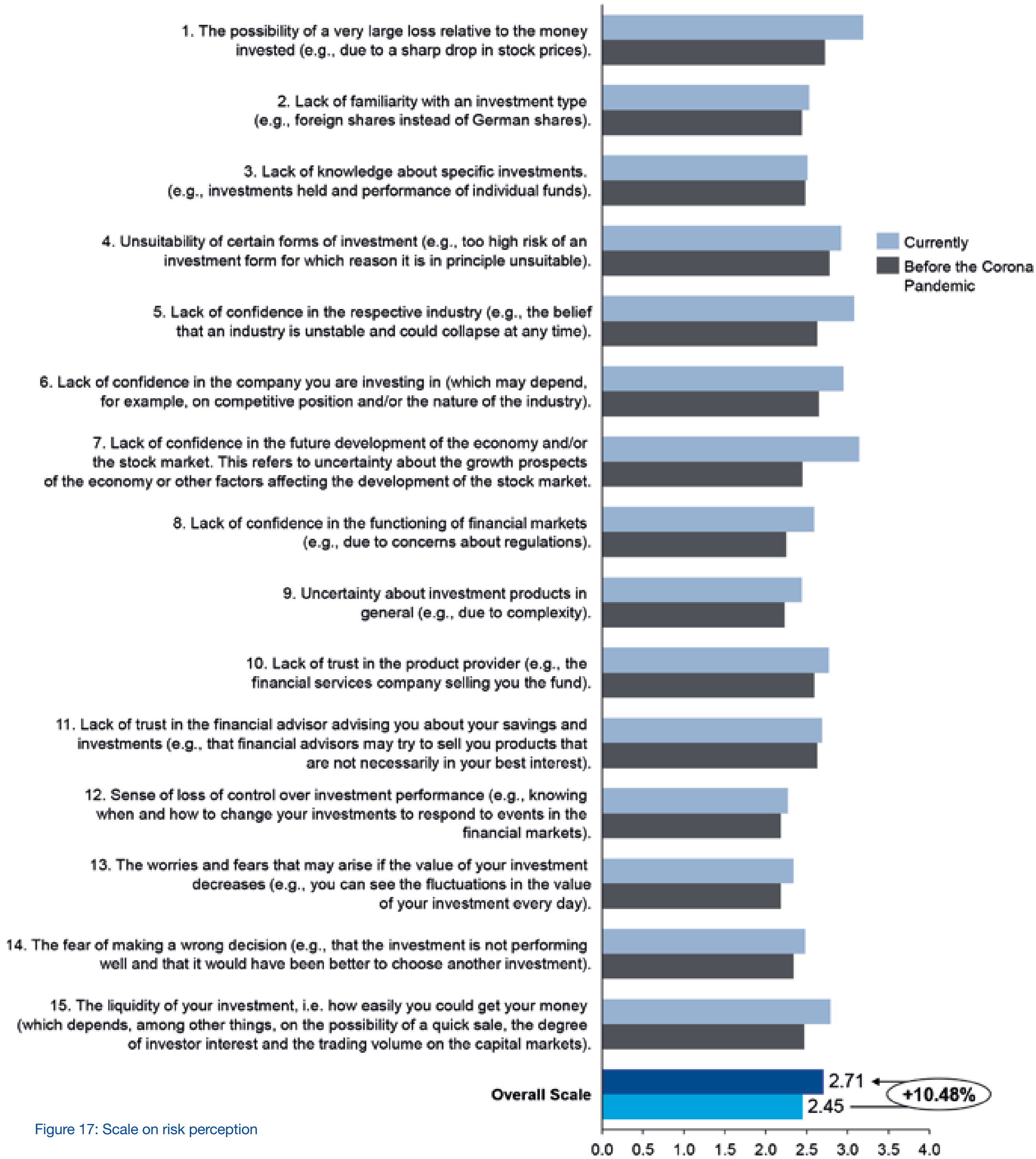


Figure 17: Scale on risk perception

Implications for practice

Interestingly, one participant stated to have noticed the inefficiencies in their investments when reflecting on their investments in the process of filling out this scale. The results indicate that there is a medium level of objective-oriented investment within our target group highlighting potential to further improve the investments in the future.

Figure 18: Scale on objective-oriented investing

To conclude, it is vital to look at the implications of these findings. We would like to split the implications into two groups: Implications for investors and implications for investment consultants. Please note that these are general implications and do not constitute investment advice.

Implications for investors

1. **Increase objective oriented investing**
   Defining clear investment goals before investing and setting a timeframe in which these goals should be achieved makes it easier to select the appropriate investment vehicles for the respective risk preference, time horizon and desired return. This needs to be done on a regular basis, reevaluating the parameters in order to better reach your desired investment goals.

2. **Potentially shift of focus to a new investment perspective**
   The study indicates that individuals did not panic as the crisis unfolded, many perceiving the crisis as an opportunity. Therefore, it may be advisable to adopt a more long-term view for investing. The next crisis is sure to come and shifting one's perspective may lead to an overall more balanced and long-term successful investment strategy and outcome.

3. **Look into getting more personalized financial advice**
   Our results have indicated that many individuals do not value personalized financial advice to a high extent. However, as this can enable one to reach one's investment goal, it may be prudent to consider looking into external personalized advice or information.

4. **Consider investing through more digital channels**
   As the world is becoming more digitalized it may be of great value to inquire how this translates to the financial world. Our survey already indicates that many individuals are moving towards investing through more digital channels. Thus, it may be interesting to look into this further.

5. **Consider new investment opportunities**
   The pandemic has already led many down new paths in terms of investing. Therefore, this may be exactly the right time to explore new assets and strategies. This will not only be fascinating but may lead to better diversification and risk management for the portfolio (for instance looking into more sustainable investments).

6. **Be aware of your heightened risk perception**
   The study has shown that risk perception is heightened following this time of crisis. Thus, one may want to keep that in the back of one's mind when making financial decisions.

All of these implications are also interesting to financial advisory and can be important to keep in mind when advising. Especially increasing objective-oriented investing is something to bear in mind and may lead to more satisfied clients as objectives are clearly defined.

Implications for financial advisors

1. **HNWIs' high tolerance for risk**
   The study has shown the high risk tolerance of HNWIs. Thus, when guiding individuals through their investment strategy and asset choices this is very important to consider.

2. **Reliance on own research**
   The results show the high extent to which individuals rely on their own research when investing. When giving financial advice this should be taken into account. Passing down information and research to the clients and involving them in the process may better serve their needs than just a recommendation for investments.

3. **Help your clients to navigate the waters in times of crises**
   Guiding clients to shift their perspective, leading them more into a long-term mindset is a very big value add as a financial advisor in times of crisis. This should be a point of focus during volatile times such as during a pandemic.

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WHU – Otto Beisheim School of Management
Institute of Family Business and Mittelstand
Burgplatz 2
56179 Vallendar, Deutschland