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Between impact and returns: Private investors and the sustainable development goals

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Abstract

We investigate the expectations of wealthy private investors regarding the impact and financial return of sustainable investments. Our paper focuses on the sustainable development goals (SDGs) as a framework for investors' attempts to create impact. We analyze the behavior of 60 high-net-worth individuals (HNWIs), a powerful yet overlooked investor segment. Our results show large allocations in line with the SDGs, which demonstrates these investors' aim of achieving real-word changes. Furthermore, we show that these "impact investors" have a clear preference for SDGs that are associated with high financial returns. As such, we confirm that both impact and attractive financial returns are expected. Our findings provide rich, deep insights into how HNWIs practice impact investing and their underlying motivations. We outline practical implications for different stakeholders, notably regarding the fact that financially attractive SDGs are likely to attract substantial amounts of capital, with other SDGs remaining underfunded.

KEYWORDS
financial return expectations, HNWIs, impact investments, sustainable development goals

1 | INTRODUCTION

Corporate social responsibility (CSR) is a an important topic for many stakeholders (Aguinis & Glavas, 2012; Andreu et al., 2015; Campbell, 2007; Ruiz et al., 2021; Schiehll & Kolahgar, 2021; Soler-Domínguez et al., 2021) and has a positive influence on a company's ability to attract investors (Flammer, 2012; Kim et al., 2021; Mackey et al., 2007; McGuire et al., 1988). Market reports illustrate that investors increasingly integrate social and environmental aspects in their investment appraisals (Cubas-Díaz & Sedano, 2018; GSIA, 2018; Swiss Sustainable Finance, 2020). While this boost for sustainable investments (SIs) is good news, the United Nations (UN) has estimated that additional investments of around USD 2.5 trillion per year are required to finance international sustainable development goals (SDGs) (UNCTAD, 2014). Thus, in addition to accelerating public aid programs, it is essential to further mobilize private capital to close this massive funding gap.

In order to mobilize private capital, it is important to understand the expectations of sustainability-oriented investors (Hafenstein, 2015; Riedl & Smeets, 2017; Widyawati, 2020). In particular, the effects of CSR considerations on corporate financial performance (CFP) are a central debate both among investors and in academia. Scholars have sought to theorize and empirically determine if and when CSR efforts create a competitive advantage. Within this so-called business case debate, researchers often claim that the results are ambiguous, inconclusive, or contradictory (Aupperle et al., 1985; Griffin & Mahon, 1997; Revelli & Viviani, 2015; Rowley & Berman, 2000; van Beurden & Gössling, 2008). Different meta-studies have responded to these doubts, showing that the majority of academic studies finds a positive relation between CSR and CFP and that,

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more specifically, the consideration of CSR in stock portfolios does not result in an advantage or a disadvantage compared to a conventional investment approach (Atz et al., 2021; Friede et al., 2015; Revelli & Viviani, 2015). While the business case of CSR—specifically the when and how—is still an ongoing debate, more recent works portray an interest in CSR beyond its effects on CFP. The desire to use one's investments to drive and stimulate positive change has become a rising theme in financial markets (Busch et al., 2021). Yet it remains unclear how investors' desire for impact affects their financial performance expectations.

In this paper, we study the return expectations of impact-oriented high-net-worth individuals (HNWIs) and how their expectations affect their investment selection. More specifically, our paper asks: What are the impact and financial return expectations of impact-oriented HNWIs?

To answer this question, we look at the SDGs as a new reference point for "impact investors." Prior work has demonstrated the importance and feasibility of integrating sustainability as a further objective in addition to financial objectives in portfolio selection, whereas the main purpose is to screen firms regarding their social and environmental performance (Dorfleitner & Utz, 2012; Hirschberger et al., 2013; Utz et al., 2015). Based on these screenings, investors compile portfolios that contain more responsible firms. Such screening efforts do not, however, contribute to the search for new ways to meet social or environmental challenges, and are therefore not aligned with the clear objective generally referred to as impact generating investment. One way to address that objective is for investors to map the contributions of the investee firms in their portfolio to the SDGs (GIIN, 2016).

We chose HNWIs as our unit of analysis due to their potential to play a key role in financing the path to a sustainable future. The wealthiest top 1% of the world's population controls about USD 158.5 trillion—so, about half of global wealth (Credit Suisse Research Institute, 2018). HNWIs are a powerful yet overlooked segment in impact investing research; overlooked mostly because researchers have no access to this segment (Paetzold & Busch, 2014). We were given a unique opportunity to study this investor segment, and to collect rare data on impact-oriented HNWIs' investment preferences and expectations.

We applied a mixed methods approach. Our data set compromises three parts: portfolio holdings, a survey, and interviews. First, we collected administrative portfolio data and survey responses from 60 high-net-worth individuals by working with the 100% Network subcommunity of Toniic. Toniic is an international community of impact investors. Members of the 100% Network are USD millionaires or billionaires who are committed to deploying 100% of their investments to achieve a positive net impact. Second, we gathered interview data from 21 members of the 100% Network in order to better understand the emerging findings and patterns obtained from the portfolio and survey data. Our results show that, ceteris paribus, investments that contribute to achieving one or more SDGs have higher portfolio weights in the portfolios of HNWIs. Moreover, we find that investors invest more capital into SDGs where they expect higher financial returns.

These findings contribute to the literature in two ways. First, we contribute to the broader literature on the question of whether it actually pays to be "good", specifically in regard to whether investors expect a premium when investing via an impact agenda. Our results provide a rich empirical account showing that impact investors do indeed prioritize investments that they perceive as having a positive impact and that they have a clear preference for SDGs that are associated with comparatively high financial returns. They intend to contribute to a sustainable future, but aim to do so in the most profitable way possible. Second, our findings show how these impact and return expectations materialize in terms of the flow of capital to some SDGs, and less so to other SDGs. Regarding the latter SDGs, there seems to be a clear limitation when it comes to achieving sustainable development through private investors. Our findings will help the field of impact investing to evolve, and to set more clear expectations for stakeholders—from regulators and actors such as the UN to product providers and private investors themselves.

2 | LITERATURE AND HYPOTHESES

The effect of CSR considerations on CFP is the subject of a central and ongoing so-called business case debate in management research. Under the overarching slogan "Does it pay to be green?" (e.g., Ambec & Lanoie, 2008; Barnett & Salomon, 2012; Hart & Ahuja, 1996; King & Lenox, 2001; Orsato, 2006) finance, accounting, and management scholars have tried to theorize and empirically assess the competitive advantage provided by CSR efforts. While the consideration of CSR has grown in popularity among investment practitioners seeking outsized financial returns, related research results are often ambiguous, inconclusive, or contradictory (Aupperle et al., 1985; van Beurden & Gössling, 2008; Griffin & Mahon, 1997; Revelli & Viviani, 2015; Rowley & Berman, 2000).

From an accounting perspective, in every company there are plenty of opportunities for win-win solutions, for example, in the energy efficiency context. At the same time, however, CSR-related investments can also have a negative effect on short-term, accounting-based CFP (Iwata & Okada, 2011; Lee et al., 2015; Wang et al., 2014). Including due to the fact that stakeholders do not immediately notice improvements in CSR-performance and that it takes time for the benefits of CSR-related differentiation to materialize (Brammer & Millington, 2008). Competitors, meanwhile, may still be benefiting from avoiding CSR expenditures (Misani & Pogutz, 2015). Furthermore, cost savings due to better CSR performance often depend on savings in terms of liability and compliance costs, which are hard to realize in the short term (Delmas & Montiel, 2009).

From a market perspective, which captures the long-term effects on market-based CFP—in the form of the stock price—findings are also mixed (Albertini, 2013; McWilliams & Siegel, 2000; Wood & Jones, 1995). In the Friedman logic, CSR activities create costs, which will have a negative impact on a company's earnings, which will in turn affect market-based CFP, in the form of the stock price. Other scholars argue that active implementation of CSR measures reduces

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costs and risk, and benefits a company's reputation, creating competitive advantage (Hart, 1995; Kurucz et al., 2008; Orsato, 2006; Sharma & Vredenburg, 1998). These latter works find that CSR improves a company's image, makes for good publicity, which can help the company gain access to new sources of capital, and can even justify a high price policy. It is also argued that an enhanced CSR-performance improves relationships with legislators, reduces material and energy inputs, decreases the cost of capital, reduces waste, enhances legitimacy, and improves relationships with employees, eventually leading to more efficiency, which leads to higher earnings and ultimately to better market-based CFP (Ambec & Lanoie, 2008; Carroll, 1999; Heal, 2005; Kassinis & Vafeas, 2006; King & Lenox, 2002; Klassen & Whybark, 1999; Russo & Fouts, 1997; Shrivastava, 1995).

In sum, some studies show a positive relation between CSR and CFP (Hart, 1995; Hart & Ahuja, 1996; King & Lenox, 2002), others a mixed one (Elsayed & Paton, 2005), and others a negative relation (Cordeiro & Sarkis, 1998; Hassel et al., 2005). In a meta-study, Revelli and Viviani (2015) show that the consideration of CSR in stock portfolios does not result in a financial advantage or a disadvantage as compared to a conventional investment approach and that, consequently, investors can earn financial returns alongside social returns. Further meta-studies have confirmed these results (Atz et al., 2021; Friede et al., 2015).

While the business case debate has been ongoing for over 40 years, more recent debates explore CSR considerations beyond its effects on CFP. The question around driving positive change with one's investments has become a rising theme in the field (Busch et al., 2021). Yet it remains unclear how investors' desire for impact affects their financial return expectations. Research on green bonds, for example, finds that at issue yields of green bonds are on average 0.06% below the yields of comparable non-green bonds, meaning investors pay a premium for their green investments (Baker et al., 2018). This green bond premium increases with the existence of what Dorfleitner et al. (2021) refer to as external greenness validations of green bonds, and with how high that externally validated greenness indicator is. At the same time, other research on investor preferences indicates that investors' willingness to pay more for investments with higher impact is mixed (Barber et al., 2021; Heeb et al., 2022).

By studying HNWIs, we gain insights into the perspectives and expectations of investment decision makers with substantial economic weight and freedom with regard to how their assets are deployed. And we get to study how they interpret impact investing, how they practice it, and what their corresponding impact and financial return expectations are.

3 | INVESTORS SEEK IMPACT BY ALIGNING THEIR PORTFOLIOS WITH THE SDGS

As a generic umbrella term, SIs have been defined as investments that consider environmental, social, and governance aspects as part of the investment decision (Busch et al., 2015). This generic description enables a variety of interpretations of how SIs are practiced. For some investors, such investments may be solely about applying exclusion criteria and thereby avoiding unethical behavior. For these investors it is about bringing individual responsibility into focus by refraining from financially supporting certain business activities. Other investors use CSR-related information to improve their financial risk analyses or to determine sources of better CFP. When this is the approach, SIs have a clear instrumental agenda. A further, newer perspective has also gained traction, whereas investors expect SI to generate real-world change in terms of solving social challenges and mitigating ecological degradation. This approach is based on the desire that an investment has additionality in terms of providing capital to a positive cause that otherwise would not have been provided for, and thus contribute to a better world. As such, the concept of additionality describes the claim that an investment generates a real-world change that would not have occurred without this particular investment. This perspective involves investors triggering material change in a company's performance. The mechanisms by which investors can exert such real-world impact are a topic of increasing prominence in academic research. Many questions remain unanswered, such as how investors that want to have an impact can do so when, for example, trading public stock equity (Busch et al., 2021; Kölbel et al., 2020).

Due to the variety of expectations with regard to sustainability and the fact that the notion of impact is an evolving concept (Gond & Crane, 2010), it is difficult for investors and other market participants to define what impact investing means precisely, and to know how to navigate the space. These varying expectations and interpretations of sustainability can also be observed in the divergences between sustainability ratings (Berg et al., 2020; Chatterji et al., 2016) making it difficult to find consensus around expectations and which actions to take.

In light of the above challenges the SDGs have become a valuable framework within impact investing. The UN announced the SDGs as a framework to address global challenges, including poverty, inequality, climate change, and environmental degradation, for the period 2015–2030. The SDGs compromise 17 core goals and 169 associated targets, which together provide a roadmap to a sustainable future (GIIN, 2016). The UN has calculated that additional annual investments of about USD 2.5 trillion are required to finance the SDGs (UNCTAD, 2014). To close this gap, a shift of private assets toward investing into the SDGs is essential (SSF, 2019). This can, for example, take the form of investing in firms that are SDG-aligned or firms that have clear change objectives quantified in specific SDG sub-targets or in commitments to science-based targets (Busch et al., 2021). Mapping how an investment fund contributes to achieving the SDGs is one way of demonstrating the impact of that fund (GIIN, 2016).

We investigate impact as a new expectation in financial markets by analyzing the allocation of capital in the portfolios of impact investors. Large allocations to investments— so, securities—that are associated with the SDGs would demonstrate impact investors' interest in promoting progress in sustainable development and in achieving real-world impact with their investments. By investing significantly in the

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SDGs, investors would demonstrate that SIs are expected to enact change, and ultimately to contribute to a better world. In sum, we hypothesize the following:

> **Hypothesis 1.** Securities with a contribution to one or more SDG have higher portfolio weights in impact investors' portfolios, ceteris paribus.

4 | RETURN EXPECTATIONS OF IMPACT INVESTORS

The emergence of impact expectations among investors goes hand in hand with the debate around the financial returns of impact investing. Studies have discussed how firms with superior CSR are able to increase their market value (Derwall et al., 2005; Edmand, 2012; Edmans, 2011; Mackey et al., 2007; Margolis & Walsh, 2003; McGuire et al., 1988; Orlitzky et al., 2003) and to decrease their cost of capital (Bhojraj & Sengupta, 2003; Cheng et al., 2013; Dhaliwal et al., 2011; Ghoul et al., 2011; Schneider, 2011; Sharfman & Fernando, 2008). However, these insights cannot be transferred to the question of what investors expect financially, which becomes especially difficult when an investor has the clear ambition of generating impact alongside a specific level of financial return. Thus, a central question is: Are investors willing to pay more if their investment makes an impact? (Heeb et al., 2022; Riedl & Smeets, 2017). Could they even "expect" the same financial returns as for non-impact investments in order to validate the case for impact investments toward non-impact investors? Or, on the contrary, should investors forgo returns to some degree in order to create financing conditions for impactful ventures that otherwise, under regular market conditions, would not have access to capital?

In the section outlining the literature and our hypotheses, we divided the academic business case debate into two schools of thought. For one school, impact and financial returns go hand in hand, while for the other school maximizing financial returns comes at the cost of impact, and vice versa. Within the first school, investors focus on impact since they perceive efforts to overcome social misery or to contribute to ameliorating environmental issues as financially material. Such efforts would therefore be beneficial for financial returns. This view is based on the idea that addressing sustainability challenges creates a win–win situation since risks are mitigated and new business opportunities can be pursued.

Investors from the second school of thought turn this perspective around. In their view, instead of searching for the business case to support sustainability, they search for sustainability in the business case (Weber & Feltmate, 2016). This perspective looks for an additionality of capital. Additionality in this perspective implies that an investment that can be financed under regular market conditions by regular market participants will also be made in the absence of an impact investor. And thus that, in this setting, the capital of an impact investor would, if invested, not have additionality. In essence, additionality presumes that impact investors are willing to invest at non-market rates and accept poorer financial returns (Barber et al., 2021).

These competing schools of thought make it difficult for impact investors to know what to expect financially from their impact investments and how to navigate the impact investing market. The notion of additionality and the related presumed expectation of the lower financial returns of impact investments bring with them the risk that many investors will walk away from the idea of focusing on impact generation. At the same time, the notion that impact happens alongside similar or even superior financial returns relative to non-impact investments can serve as a legitimization of impact investments in financial markets. The latter understanding is reflected by many impact investing organizations, including the Global Impact Investing Network (GIIN). We propose, therefore, that financial returns similar to non-impact investments—so, market-rate or commercial returns—are a typical expectation among impact-oriented investors. As a result, investors might pick impact investments—in our case, expressed in the form of investments associated with the SDGs—with higher financial return expectations. Thus, we hypothesize:

> **Hypothesis 2.** The higher the expected financial return of investments that make a contribution to a specific SDG, the more of their capital impact investors will allocate to investments related to that SDG.

5 | DATA AND METHODS

We follow a mixed methods approach working with a data set that consists of three parts: portfolio holdings, a survey, and interview data. We obtained anonymized portfolio data and survey answers from members of the 100% Network group of private high-net-worth impact investors, a subset of the Toniic global investor community. Toniic collected the data using its portfolio tool and by surveying its 100% Network group members.

We merged the portfolio and the survey data sets based on the anonymized identifier for individual investors contained in both sets. The obtained sample consists of quantitative data from 60 private impact investors. We conducted interviews with 21 of these 60 impact investors to understand the underpinnings of their investment decisions in detail. We are—compared to the authors of the extant literature—fortunate to be able to provide insights from such a unique data set. HNWIs form a very selective group and are often reticent to share information about their investment portfolios, or their personal details. Indeed, to the best of our knowledge, we are the first to have access to a data set that contains the information necessary to study the motivations, argumentations, and actual investment decisions of wealthy private impact investors.

5.1 | Toniic and the 100% network

Toniic is an international community for impact investors made up of more than 400 individuals, family offices, foundations, and funds. Only private high-net-worth owners of capital are allowed to join the

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community's 100% Network subgroup. Members may only join this subgroup if they meet two prerequisites: The first is that they are the ultimate principals and decision makers regarding their investable wealth, which must exceed USD 1 million. The second is that they commit to working toward deploying 100% of the investments in at least one of their portfolios with the aim of achieving positive net impact, across all asset classes, and in alignment with their ethical, social, and environmental priorities. The group was founded in 2013 and is managed out of the USA and Germany. By 2019, the 100% Network had brought together private investors from around 16 countries, and they had cumulatively committed around USD 6 billion to impact investing. Before providing their impact portfolio data and survey responses, the 100% Network participants were informed both verbally and in writing by the Toniic management team that their anonymized data would be used for the research purposes of this paper.

5.2 | Portfolio data

The administrative data follows a portfolio–year–security hierarchy for each investor for the years 2014 to 2019. In all, we obtained an unbalanced panel of 136 different portfolio–year compositions. A total of 31 investors provided portfolio data for 1 year, 29 investors provided data for 2 years, 14 investors provided data for 3 years, and 1 investor provided data for 5 years. In line with the terminology employed by Toniic, we call these obtained portfolios "impact portfolios" while we recognize that this does not qualify the impact a portfolio has or how that portfolio incorporates the concept of impact. For each portfolio—so, for each investor—and for each year in which the respective portfolio was reported, the data set included all the securities that, collectively, made up that portfolio, as well as the weight of every single security. These weights express the amount of capital invested in any given security as a proportion of the entire portfolio wealth. For instance, and to keep things simple, let us assume a hypothetical portfolio with a total wealth of USD 1 million consisting of three different securities, securities A, B, and C. Assume that the amount of capital invested in security A (B and C) is USD 300 K (500 and 200 K, respectively). Hence, the weight of security A in the portfolio is 30% of the entire portfolio, the weight of security B is 50%, and the weight of security C is 20%. These weights represent the actual investment decisions of each impact investor in our sample.[1] In sum, the total panel includes over 4000 security–year observations—that is, the individual observations for each security in the sample, per year.

Table 1 contains summary statistics on average values of selected variables (self-reported by the investors) from the portfolio data set. The panel *financial profile* shows that about 81% of the wealth in an average portfolio is invested in securities that generate commercial returns according to the investors' expectations. The term commercial returns refers to the same financial returns as those that are expected of traditional non-impact investments. Only a tiny proportion (0.18%) of portfolio wealth is allocated to securities with an expected *(partial) capital loss*. Moreover, the prevailing asset class in the portfolios is *public equity*—so, stocks publicly listed on a stock exchange. The HNWIs in our sample invest, on average, 28.21% of their portfolio wealth in this asset class. Together with *fixed income* (so, debt) and *private equity* investments (so, direct investments in privately held firms), these three asset classes are targeted by more than two-thirds of the investments in an average portfolio. Further, we observe a bimodal liquidity distribution in the portfolios. Almost half of the investments exhibit short-term liquidity (i.e., *investments that can be sold within less than 30 days*), while another quarter have a long-term investment focus with a liquidity of *more than 5 years*.

In the Toniic portfolio tool, investors also indicated with which SDGs they associate individual securities. This is a subjective grading, and the investors were allowed to select up to three SDGs per security. The variable *Number of SDGs linked to securities* summarizes this selection decision. About 38.9% of the wealth of an average portfolio is not linked to any SDG. About half of the wealth (49.85%) is linked to one SDG, 3.8% is linked to two SDGs, and 7.5% is linked to three SDGs.

Finally, Table 1 contains summary statistics for the *Expected portfolio return* and the *Number of securities* in an average portfolio. Portfolios generate an average expected annual return of 6.95%. The positive minimum of the expected return (0.04%) indicates that HNWIs aim to achieve at least capital preservation with their investment portfolios. On average, these portfolios consist of 30 different securities, with the lowest number of securities being three and the largest portfolio (in terms of number of securities) being made up of 356 securities.[2]

5.3 | Survey data

All 100% Network members who had previously provided portfolio data were invited to participate. Toniic sent an email to 75 members of the 100% Network containing a link to an online survey. The response rate was 80%; so, 60 members out of the 75 who had provided their portfolio data also completed the survey. Respondents showed similar characteristics relative to the overall sample (see Table A1 for a comparison of the survey respondents and the overall sample regarding portfolio wealth, investor type, and investor geography).

[1]These weights are particularly important for determining the expected returns of any portfolio. We calculate the expected portfolio return as the weighted sum of each security's return; that is, as the sum of all securities' returns combined. The proportion of each security in the portfolio as outlined above acts as the respective weight in this calculation. Let, in a given period, the return of security A be 10%, the return of security B be 14%, and the return of security C be 5%; then, the expected portfolio return in this period is 30% × 10% + 50% × 14% + 20% × 5% = 11%.

[2]Note that the opportunity for investors to invest in securities that are aligned with SDGs is not limited to a small number of investment targets. The portfolio data contains around 2500 different securities in total. Table 1 shows us that around 50% of these securities are aligned with at least one SDG. Meaning that the minimum SDG investment universe is made up of more than 1200 different securities—sufficient potential variability, then, for investors to choose their portfolios. Plus, not all securities are public equity assets, and not all investments are made with financial profit maximization as the primary objective. Meaning that the investment universe is not limited to a possibly small number of profitable, publicly listed firms, but is also open to private equity and debt projects and investments with below-market rates of expected financial return.

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TABLE 1 Characteristics of an average portfolio

Number of securities in a portfolio					
Mean	Sd		Min	Max	
30	38		3	356	
Asset class					
Cash and equivalents	Fixed income	Hedge funds	Private equity	Public equity	Real assets
11.51	21.27	3.22	19.92	28.21	15.87
Number of SDGs linked to securities					
0 SDGs	1 SDG		2 SDGs	3 SDGs	
38.85	49.85		3.80	7.50	
Expected portfolio return					
Mean	Sd		Min	Max	
6.95	5.75		0.04	35.88	
Financial profile					
Full capital loss	Partial capital loss	Capital preservation	Sub-commercial return	Commercial return	Extraordinary return
0.05	0.13	5.07	5.97	81.26	7.52
Liquidity					
<30 days	30 to 90 days	90 days to 1 year	1 to 5 years	>5 years	
49.91	8.38	8.17	4.79	28.76	

Note: This table reports a number of summary statistics for an average portfolio. The numbers for the first five variables are percentage values. The first four variables (*Financial profile*, *Asset class*, *Liquidity*, and *Number of SDGs linked to securities*) indicate what proportion of total wealth is allocated to a certain category of a variable. *Financial profile* refers to the risk-adjusted financial outcome expectation that is stated by the investor. *Asset class* refers to the distribution of the investment capital across different asset classes. *Liquidity* refers to the distribution of the different investment horizons in the portfolios. *Number of SDGs linked to securities* refers to the proportion of securities in the portfolios that the investors linked to 0 SDGs, to 1 SDG, to 2 SDGs, and to 3 SDGs. For the fifth and sixth variables (*Expected portfolio return* and *Number of securities in a portfolio*), we report summary statistics (mean, standard deviation, minimum, and maximum) across the portfolios.

The survey allowed us to gather personal data, information about perceived barriers to deploying capital via impact investments and return expectations for impact investments compared to conventional investments. In particular, we were able to collect information about important control variables, such as the experience investors have with impact investing (in years), portfolio size in terms of amount of investment capital, the investor's gender, age, and level of education, and whether the Network member works with an investment advisor.

Table 2 reports details of investor characteristics derived from the survey. Our sample contained HNWIs from 16 different countries, the majority from the US (32 investors). In general, the investors were well educated (66% were postgraduates) and middle-aged, and about half invested more than USD 10 million. The majority (36) worked together with an investment advisor. The investors had a long history with SIs, 37 stating that they had at least 5 years of related experience.

5.4 | Interview data

To corroborate and further understand the emerging findings and patterns obtained from the administrative and survey data, we used interviews with 21 members of the 100% Network. This provided us with further evidence of specific aspects as well as surprising insights. Table 3 provides an overview of these interviewees' profiles. The interviews followed a semi-structured approach and involved discussion of the interviewees' general thoughts, expectations, and attitudes toward investments, the specific barriers they face, and their values and beliefs. The interviews were recorded, transcribed, and coded using the software NVivo in an iterative process guided by the Gioia methodology principles (Gioia et al., 2013). Based on the outcomes of this process, we arrived at richer, deeper, and more fine-grained insights that complement the evidence obtained from the administrative and survey data.

6 | RESULTS

6.1 | Investors prefer SDG-aligned investments

Based on the portfolio data, we investigate whether securities that are indicated as serving a specific SDG have higher portfolio weights than comparable securities with no impact characteristics. Our variable of interest is a measure for what we call the resulting impact alignment of each security. We calculate variables for the impact alignment of each security in two different ways. Our first impact variable is a categorical variable. We determine the impact of a security by the number of SDGs it is aligned with. The resulting variable, *Nr of*

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TABLE 2 Investor survey summary statistics

Variable	Category	Number of investors ($N = 60$)
Domicile	Africa	1
	Asia/Oceania	3
	Europe	17
	Latin America	1
	Middle East	2
	USA/Canada	36
Age	21–30	6
	31–40	10
	41–50	15
	51–60	18
	61–70	8
	71–80	3
Education	High school	2
	College graduate	18
	Postgraduate degree	40
AUM	Single	30
	Double	25
	Triple	5
Advisor	No	24
	Yes	36
Impact tenure	<1 year	3
	1–3 years	5
	3–5 years	15
	5–10 years	17
	10–15 years	8
	15 + years	12

Note: This table reports summary statistics based on survey responses. The variable *Age* refers to the age category stated by the investor. The portfolio value (*AUM*) indicates the dollar amount of the investment, where *Single* refers to a portfolio value of between USD 1 million and 10 million, *Double* refers to a portfolio value of between USD 10 million and 100 million, and *Triple* refers to a portfolio value of USD 100 million or more. Some investors use consulting support (*Advisor—Yes*); others invest independently (*Advisor—No*). *Domicile* is the geographical location of the investor. *Education* indicates the highest academic level achieved by the investor. The time for which an investor had already been engaged in impact investments (*Impact tenure*) is measured in years.

SDGs, represents whether a security contributes to zero, one, two, or three different SDGs. Our second impact variable is a dummy variable with a value of 1 for a security that serves at least one SDG and a value of 0 if the security serves no SDG.

Table 4 presents the results of different OLS regression models with fixed effects for the reporting year and portfolio-clustered standard errors. The dependent variable in each model is the weight of the securities in the portfolios. We explain the variation in the weights as a function of SDG-alignment measures, the logarithm of the number of stocks in the portfolio, the financial characteristics of the respective security, and investor-specific characteristics (see Table 4 for a detailed explanation). For each model specification—reflecting our two measures of SDG alignment—we analyzed the SDG measure's main effect and the interaction term between the respective SDG measure and the logarithm of the number of stocks in the portfolio. We included the interaction term to capture the possible effect that investors focusing on SDG-aligned investments selected a different number of securities compared with average investors—that is to say, a lower (or higher) number of securities would be directly related to a higher (or lower) average weight in the portfolio.

The results show clear evidence of a positive main effect of the SDG measure, a negative interaction term, and a negative relationship between the number of securities in a portfolio and the portfolio weights. Thus, securities with an alignment with one or more SDGs had higher portfolio weights in general. However, the marginal effect of the interaction term suggests that SDG-aligned securities had higher (or lower) weights in portfolios with a low (or high) number of stocks compared to non-SDG-aligned securities (unreported results).

As a robustness check, we added the financial control variables *financial profile* (FP) and *liquidity* (LIQ) to the model (see columns 3 and 4 in Table 4). We found no substantial changes in the coefficients of the SDG measures and the interaction terms under consideration. The variable *financial profile* acted as a measure for the financial return that investors would expect from a security. The variable *liquidity* measuring how quickly investors expect to be able to sell a security. The models explain about 20% of the variation in the portfolio weights, which is rather high. The coefficients for the control variables are reasonable. For instance, the reference category of the variable *financial profile* is capital preservation, referring to the expectation of maintaining the value of an investment stable over time. Securities for which investors expected a full capital loss showed significantly lower portfolio weights, while securities for which investors expected to generate extraordinarily high financial returns exhibited significantly higher portfolio weights than the reference category. According to the variable *liquidity*, the portfolio weights are higher for securities with high liquidity and low for securities with low liquidity.

Although we control for several influencing variables in the regression models described above, our results might be exposed to reverse causality. This would be the case if investors focus on the large portfolio positions (i.e., securities with high weights in the portfolios) and mainly ignore the small positions in their portfolios. Such a pattern might result in investors knowing a lot about the large position and therefore being able to assign one or more SDGs to such a security, but having almost no knowledge about the small positions and therefore not assigning an SDG to such a position. In this hypothetical setting, we would also observe the results presented above—that is to say, higher portfolio weights for securities that are aligned with an SDG. To mitigate this concern, we make use of the distributions of the portfolio weights of SDG-aligned and not SDG-aligned securities. The mean portfolio weight of an SDG-aligned

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TABLE 3 Interviewee profiles

Interviewee	Gender	Age	Nationality	Net worth	Profession	Education
Member 1	M	26–35	Italy	20M–100M	Private investor	Masters
Member 2	F	20–25	Netherlands	100M–1Bn	Finance professional	Bachelors
Member 3	F	26–35	Netherlands	100M–1Bn	Manager	Masters
Member 4	F	36–45	Hong Kong	>1Bn	Finance professional	Masters
Member 5	M	45–60	USA		Investment advisor	Bachelors
Member 6	M	45–60	Australia		Finance professional	Bachelors
Member 7	M	36–45	Germany	>1Bn	Finance professional	
Member 8	F	60+	USA	>1Bn	Private investor	Masters
Member 9	M	45–60	USA		Finance professional	PhD
Member 10	M	60+	USA		Private investor	Masters
Member 11	F	60+	USA		Private investor	Masters
Member 12	M	45–60	Belgium		Finance professional	Masters
Member 13	F	26–35	Netherlands		Project manager	Masters
Member 14	M	60+	USA	100M–1Bn	Private investor	PhD
Member 15	M	60+	USA		Finance professional	Masters
Member 16	F	60+	USA		Private investor	Bachelors
Member 17	F	60+	USA		Manager	Vocational training
Member 18	M	26–35	USA		Private investor	Masters
Member 19	F	26–35	Germany	>1Bn	Private investor	Masters
Member 20	M	36–45	Germany	>1Bn	Private investor	Bachelors
Member 21	M	26–35	Germany	>1Bn	Private investor	Masters

security is 3.36%; the equivalent figure for a not-SDG-aligned security is 3.10%. Other descriptive statistics of each distribution are also similar, including the standard deviations of the portfolio weights of SDG-aligned (7.36%) and not-SDG-aligned (7.24%) securities and the maximum portfolio weights (SDG-aligned, 73.2%; not SDG-aligned, 74.0%). Thus, the weights of not-SDG-aligned assets are not substantially smaller than those of SDG-aligned assets on the entire cross-section of weights without controlling for portfolio size and the financial characteristics of the assets. This is an indication that the reverse causality concern can be discerned to some extent in our setting. Additionally, the membership criteria of the 100% Network is another qualitative argument against the fact that investors only consider assets with large proportions in their portfolios when assessing SDG alignment. Members of this group have promised to evaluate the entire portfolio regarding impact. This "100%" assessment is only possible if they assess each asset (including those with a low portfolio weight) regarding its impact.

In summary, our results confirm our first hypothesis, that securities that contribute to the achievement of one or more SDGs have higher portfolio weights in HNWIs' portfolios, ceteris paribus. This means that if an impact investor can choose between security A, which serves an SDG, and security B, which does not, the investor would allocate more capital to security A than to security B. Additionally, we show that the smaller the number of different securities in a portfolio, the larger the difference in the portfolio weights of SDG-aligned securities and non-SDG-aligned securities.

Our qualitative interview data supports these results and shows that the portfolios' SDG alignment is not random but is based on intentional decision-making. Investors pick certain areas or objectives that they would like to contribute to and then make their investments accordingly. As one interviewee put it:

> Member 15: You start off with a set of objectives that you are trying to achieve with your money. [You start with a set] of issue areas that matter most to you.

On average, 61.1% of the invested assets are aligned with at least one SDG (see Table 5). Among the SDGs, SDG 11 (Sustainable Cities and Communities) and SDG 17 (Partnerships for the Goals) are the SDGs most frequently invested in by the investors in our data set. SDG 14 (Life below Water) is the least represented Goal. SDGs 15 (Life on Land) and 5 (Gender Equality) are also at the lower end of the investment spectrum. SDGs 7 (Affordable and Clean Energy) and 13 (Climate Action) are in the upper-middle range. Some portfolios are highly concentrated in certain SDGs, as the maximum column indicates. For instance, one portfolio invested 81.3% of its wealth in securities aligned with SDG 17. Another portfolio invested all its capital in securities that were aligned with the Goal Affordable and Clean Energy (SDG 7). The decision to focus on a specific theme is usually motivated by a personal connection, such as professional experience or an individual passion. As outlined by another interviewee:

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TABLE 4 Portfolio weights of SDG-aligned securities

	Dependent variable: Portfolio weight			
	(1)	(2)	(3)	(4)
Nr of SDGs	0.064*** (0.011)		0.067*** (0.012)	
Nr of SDGs × log (securities)	−0.019*** (0.003)		−0.018*** (0.003)	
SDG (yes/no)		0.037** (0.016)		0.043** (0.018)
SDG (yes/no) × log (securities)		−0.015*** (0.004)		−0.015*** (0.004)
Log (securities)	−0.019*** (0.002)	−0.025*** (0.002)	−0.020*** (0.002)	−0.025*** (0.002)
FP.Full cap loss			−0.053*** (0.009)	−0.048*** (0.009)
FP.Part cap loss			−0.028*** (0.01)	−0.021** (0.01)
FP.Sub-com ret			−0.017** (0.008)	−0.010 (0.008)
FP.Com ret			−0.006 (0.007)	−0.002 (0.007)
FP.Extra ret			0.037** (0.016)	0.044*** (0.016)
LIQ. <30 days			−0.010 (0.008)	−0.013 (0.008)
LIQ. 30–90 days			0.006 (0.014)	0.006 (0.014)
LIQ. 1–5 years			−0.015 (0.011)	−0.017 (0.011)
LIQ. >5 years			−0.029*** (0.009)	−0.028*** (0.009)
Constant	0.104***	0.132***	0.123***	0.151***
Time FE	Yes	Yes	Yes	Yes
Observations	4096	4096	3104	3104
Adjusted R^2	0.145	0.141	0.189	0.178
F statistic	88.058***	85.171***	43.488***	40.616***

Note: The table presents the results of different OLS regression models with fixed effects for the reporting year and portfolio clustered standard errors. For each model specification—reflecting our two measures for SDG alignment—we analyzed the main effect of the measure and the interaction term between the respective measure and the logarithm of the number of stocks in the portfolio. We included this interaction term to capture the possible effect that investors focusing on SDG-related investments selected a different number of securities compared with average investors—that is to say, a lower (or higher) number of securities would be directly related to a higher (or lower) average weight in the portfolio. Our set of control variables therefore contains the number of securities in the portfolio (*log (Securities)*); a measure for the expected risk-adjusted return of the security (*Financial Profile - FP*) with the reference category *Capital Preservation* and the categories in the table being full capital loss (*FP.Full Cap Loss*), a partial capital loss (*FP.Part Cap Loss*), a sub-commercial return (*FP.Sub-Com Ret*), a commercial return (*FP.Com Ret*), and an extraordinary return (*FP.Extra Ret*); and a measure for liquidity with the reference category of a liquidity between 90 days and 1 year and the liquidity ranges indicated in the table. We ran different OLS regression models with time-fixed effects, and we report coefficients and clustered standard errors (the latter in parentheses). The full model with all controls explains around 20% of the variation in the portfolio weights of securities related to the SDGs, which is rather high. The coefficients for the control variables, which are discussed in more detail below, are reasonable.
*Level of significance: $p < .1$. **Level of significance: $p < .05$. ***Level of significance: $p < .01$.

> Member 18: The ocean has a big part in my heart now [and] I see it as largely unaddressed. [That's why] I want to get more involved with this space.

We find that many impact investors intentionally invest in an SDG-aligned manner. In order to foster the sustainability theme that they prefer, some focus on individual SDGs while others include a number of SDGs covering a similar theme. In the words of an interviewee:

> Member 5: So, in public equity, climate change is one of my big things. […] SDG number 7, clean energy and resource efficiency is the major impact theme I went for and SDG 13, climate action […] What I'm really interested in is carbon footprint and so getting clear about that in public equities especially.

The interviewees point out that their investments are driven by impact motivations. Investors pick investments that maximize the impact on their chosen SDGs. They focus on social and environmental outputs and avoid investments that they do not think will live up to these goals:

> Member 19: I will sort my deals according to which [investment] would maximize the impact on that SDG. Because I had a health background, I was thinking that SDG 3 [Good Health and Well-Being] will be my focus. […] So, finding products that are not greenwashed but actually have a positive impact no matter what therefore dominates what I choose.

Beyond that, we observe a tendency for clusters around specific topics. By looking at the count variable, representing the number of

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TABLE 5 Portfolio weights separated out by individual SDGs and non-SDG-aligned investments

	Mean	Sd	Median	Max
Non-SDG-aligned	38.9	28.7	32.7	100.0
SDG 01 no poverty	5.6	10.6	2.1	69.8
SDG 02 zero hunger	6.3	9.8	2.5	40.4
SDG 03 good health and well-being	7.8	11.3	3.1	50.5
SDG 04 quality education	5.2	6.6	2.0	26.6
SDG 05 gender equality	3.2	5.5	0.8	23.3
SDG 06 clean water and sanitation	7.1	12.3	0.8	45.4
SDG 07 affordable and clean energy	**12.9**	**20.1**	**4.5**	**100.0**
SDG 08 decent work and economic growth	6.4	15.4	0.9	78.9
SDG 09 industry, innovation, and infrastructure	4.9	8.3	1.8	40.5
SDG 10 reduced inequalities	8.7	15.2	2.1	58.9
SDG 11 sustainable cities and communities	**19.1**	**19.7**	**10.6**	**76.6**
SDG 12 responsible consumption and production	6.0	7.8	2.7	32.5
SDG 13 climate action	5.9	7.2	3.5	32.3
SDG 14 life below water	2.0	2.2	1.5	10.7
SDG 15 life on land	2.5	2.7	1.8	10.7
SDG 16 peace, justice, and strong institutions	3.3	5.7	1.7	28.3
SDG 17 partnerships for the goals	**13.0**	**20.2**	**3.5**	**81.3**
Number of different SDGs in one portfolio	5.956	2.735	6	15

Note: This table reports portfolio weights separated out by individual SDG and non-SDG-aligned investments in percentage terms. We aggregate the portfolio weights of the securities that are aligned with each respective SDG for each portfolio. The *mean*, *standard deviation* (*sd*), *median*, and *maximum* (*max*) across the 136 portfolio compositions are presented. The three SDGs with the highest mean values are indicated in bold. Moreover, *Number of different SDGs in one portfolio* illustrates the concentration of portfolios on certain SDGs. To calculate this measure, we generate SDG weight vectors for each portfolio; that is, we sum the weights of all securities assigned to the same SDG in each portfolio. *Number of different SDGs in one portfolio* is a count variable that equals the number of non-zero SDG weight vector components of each portfolio.

different SDGs in one portfolio, we see that an average portfolio contributed to almost six different SDGs (mean 5.956) (see Table 5). The maximum number of SDGs captured in one portfolio was 15 of the 17 different Goals. Since the median of this distribution was 6, the majority of the portfolios addressed at least one-third of the 17 SDGs. The qualitative data confirms that these clusters are not random but are based on intentional choices with the goal of targeting and solving a specific problem:

> Member 7: One of our key investment areas is renewable energy [...] about 70% of our impact investments are in that field. Once again, we link to the global goals. Of the whole portfolio I think we have investments that cover three global goals.

6.2 | Expected returns determine SDG engagement

In order to test our second hypothesis, we investigate the relationship between the expected financial return of a security and its SDG alignment. Specifically, we explain the variation in the cross-section of the expected returns by dummy variables for each of the 17 SDGs and the "non-SDG" variable (which is omitted as the reference category in Table 6).

Impact investors have clear preferences when it comes to promoting specific SDGs (see Table 6). The results presented in Table 6 document that the SDGs differ significantly in regard to the financial return that investors associate with them. A positive coefficient of an SDG dummy indicates that investors in our sample expect a higher financial return for a security that is aligned with that SDG compared to a security with no SDG alignment. The results show that the top three SDGs in terms of average weights (SDGs 11, 7, and 17, as indicated in Table 3) exhibit significant positive coefficients. Moreover, SDG 8, Decent Work and Economic Growth, also has a significant positive coefficient—meaning that impact investors associate it with higher financial returns compared to other SDGs. The same holds for SDGs 14 (Life below Water) and 15 (Life on Land). Furthermore, we find that impact investors associate SDG 7, Affordable and Clean Energy, with relatively high financial returns, while this does not apply to the closely related Goal SDG 13, Climate Action. Apparently, renewable energy solutions are perceived as being more profitable compared to other climate mitigation efforts.

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TABLE 6 SDGs and expected financial security returns

	Dependent variable: Expected return
SDG 01 no poverty	0.019 (0.011)
SDG 02 zero hunger	**0.035*** (0.010)**
SDG 03 good health and well-being	**0.067*** (0.010)**
SDG 04 quality education	**0.027* (0.015)**
SDG 05 gender equality	0.015 (0.016)
SDG 06 clean water and sanitation	0.014 (0.013)
SDG 07 affordable and clean energy	**0.044*** (0.007)**
SDG 08 decent work and economic growth	**0.077*** (0.015)**
SDG 09 industry, innovation, and infrastructure	**0.042*** (0.012)**
SDG 10 reduced inequalities	0.001 (0.024)
SDG 11 sustainable cities and communities	**0.042*** (0.007)**
SDG 12 responsible consumption and production	0.017 (0.011)
SDG 13 climate action	0.008 (0.013)
SDG 14 life below water	**0.079*** (0.022)**
SDG 15 life on land	0.020 (0.015)
SDG 16 peace, justice, and strong institutions	0.008 (0.018)
SDG 17 partnerships for the goals	**0.080*** (0.011)**
Constant	0.057*** (0.003)
Observations	2126
Adjusted R^2	.068
F statistic	9.566***

Note: This table reports the expected returns of securities separated out by their alignment with one of the 17 SDGs. We estimate the expected return as a function of the SDG category. Each *SDG variable* is a dummy variable that observes a value of 1 if the security is aligned with the SDG and 0 otherwise. The reference category is *non-SDG-aligned*. We ran an OLS regression model with clustered standard errors (security number), and report coefficients and clustered standard errors (the latter in parentheses). We tested whether the Pearson correlation coefficient, ρ, between the average SDG portfolio weights and the respective SDG average expected return is higher than zero. We therefore ran 10,000 bootstrap simulations and found the correlation coefficient ($\rho = .303$) to be higher than zero at a 5% significance level (bootstrap p value $= .027$). The SDGs with significant coefficients are indicated in bold.
*Level of significance: $p < .1$. **Level of significance: $p < .05$. ***Level of significance: $p < .01$.

In summary, our results indicate that although, in general, impact investors allocate a higher proportion of their wealth to securities with SDG alignment, they tend to focus on a few SDGs that they associate with high financial returns. We tested whether the Pearson correlation coefficient, ρ, between the average SDG portfolio weights and the respective SDG average expected return is higher than zero. To do this, we ran 10,000 bootstrap simulations and found the correlation coefficient ($\rho = .303$) to be higher than zero at a 5% significance level (bootstrap p value $= .027$). This finding supports the argument that impact investors, in general, prefer to invest in the SDGs that they expect to generate the highest returns, and therefore confirms our second hypothesis.

Our qualitative interview data supports these results. Investors tend to pick SDGs that promise higher returns. These SDGs tend to relate to clear business opportunities. One interviewee describes why SDGs 6, 7, and 9 are interesting by stating that these are the Goals where investments are economically driven, therefore implying higher return potentials compared to SDGs that lack business cases:

> Member 10: We're basically into three areas, SDGs 6, 7, and 9, [as] these are the ones that are being driven economically.

While investors are moving away from traditional investing and toward impact, their financial return expectations appear to remain the same. Many expect such investments to achieve market-rate financial returns alongside social and environmental returns:

> Member 19: We are replacing the original (non-impact) portfolio, [but] we want the same return as before.

These expectations are explained in different ways. We specifically found evidence of a desire to validate the business case for impact investments. The interviewees want to demonstrate that investors do not have to sacrifice return to invest with impact. They want to prove that it can be done at market rate in order to motivate more investors to get into impact investing:

> Member 15: I'm tired of hearing people say there has to be a sacrifice in return. I know it could be done with market rate.

By tracking their portfolios, members of the 100% Network want to provide data that demonstrates that impact does not come at the cost of financial return. They want to show that there is no trade-off between the two and that both can be achieved at the same time:

> Member 12: I think right now what the space needs is just data and proof of—sort of dispelling this myth that there's a trade-off between impact and financials.

The presence of this desire also makes it clear that a social or environmental return alone is not enough to please such impact investors. Once the expectation of financial returns has been set, non-financial returns cannot outweigh this expectation. If there is an opportunity to attain both impact and financial return, investors expect to attain both. If this expectation is not met, there is clear dissatisfaction and disappointment:

> Member 16: I have [seen] things across the whole spectrum from 0% return to double digit return […] I just met with one of the fund managers [and] I had an expectation that it was going to be sort of an 8–10%

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> return fund, and I really invested on that basis. […] I think it's going to turn out to [be] maybe half of the returns that I was expecting […] Of course [impact] makes me feel better but I was really hoping it was going to be more like an 8–10% return piece of my portfolio. So, I said I'm really excited about all of the amazing environmental and social return we are having and also, to be really honest, I'm really disappointed about the financial side. […] I feel really good about helping catalyze capital in those cases, but I cannot do that all day long.

To summarize, our results confirm both of our hypotheses. Securities that contribute to one or more SDGs have higher portfolio weights in HNWIs' portfolios, ceteris paribus, and investors choose SDGs that are associated with higher financial returns.

7 | DISCUSSION

In this paper, we studied how HNWIs practice impact investing and what the corresponding financial return expectations are. We investigated the SDG alignment of the portfolios of HNWIs and analyzed their return expectations. Our results show large allocations toward certain SDGs, which demonstrate investors' interest in promoting progress in sustainable development as well as their aim to achieve real-word impact with their investments. Simultaneously, by investing significantly in efforts to achieve the SDGs, investors substantiate the perspective that SIs are expected to enact change and ultimately contribute to a better world. Furthermore, we are able to confirm our expectation that, for the studied HNWIs, both matter—adequate financial returns and impact. Investors therefore tend to choose impact investments—in our case expressed in the form of SDG orientation—with higher financial return expectations.

Our findings make two contributions. First, we contribute to the literature on the business case debate. Alongside the debate over whether or not it actually pays to be good, it is so far unclear whether impact investors expect higher or lower financial returns from impact investments. In one school of thought, impact and financial returns are viewed from an either-or perspective, meaning that if investors seek to make an impact, they sacrifice on return, or, vice versa, if they maximize their return, they sacrifice their intention to make an impact. Our results support a different school of thought. We show that impact investors have a clear preference for SDGs that are associated with high financial returns. They intend to contribute to a sustainable future but aim to do so in the most profitable way possible. This reconfirms the value of past efforts to explore the business case of sustainability (Friede et al., 2015; Orlitzky et al., 2003; Rosenbusch et al., 2007). We highlight the distinction between philanthropy and impact investing by showing that impact investors do indeed aim to achieve attractive financial returns.

Second, our findings show how impact expectations are practiced. For investors and other market participants it can be difficult to precisely define what investing with impact means and what qualifies as an impact investment beyond any considerations of financial return. As emphasized earlier, for some investors it might be solely a question of the individual investor's sense of societal responsibility. For others there might only be an instrumental agenda. Investors of a third type might expect their investments to lead to real-world change. Our findings show the significance of this third investment goal. We show that impact is of relevance to investors, and that they think strategically about the impact themes that they prioritize, as well as about how those themes relate to a framework like the SDGs. They think about how to allocate their assets accordingly, alongside broader thinking about making sure one's investments drive effective change, including finding ways to bring more investors to impact investing.

In terms of practical implications, the outlined findings can help the field of impact investing evolve in multiple regards. For stakeholders focused on accelerating impact through capital markets—such as actors that, like the UN, are interested in our achieving the SDGs—our results indicate an opportunity and a potential risk. The opportunity lies in our finding that substantial flows of private capital can be attracted to several specific SDGs, in particular those SDGs that investors expect attractive financial returns from. The risk lies with SDGs for which such returns are not expected or are unclear. For the latter, financially less attractive SDGs, relying on (private) investors to provide the necessary capital may result in their continued underfunding. Actors interested in steering (private) capital toward those SDGs might have to explore avenues that lead either to making the prospect of consequent attractive financial returns clearer to investors or to improving financial returns. Innovative structures to improve financial returns in such situations are being developed and include the field of blended finance and outcomes-based funding structures, where third parties interested in impact provide additional financial returns or mitigate financial risks for investors. For asset managers interested in selling impact investing products and services to HNWIs, our results indicate that it is advisable to emphasize both attractive impact and financial returns rather than relying on one or the other as a selling argument. Further, it is important that asset managers communicate clearly about what they mean by the term "impact," as we find that their clients think strategically about the topic and about how to allocate their funds accordingly. Our results may also imply that asset managers are likely to focus on the promotion of investment offerings and services focused on those SDGs that promise attractive financial returns, in the process neglecting the other goals. For private investors, our results show that the strategies chosen among their peers differ substantially in how they integrate impact into their portfolios. Private investors who want to maximize the additionality of their capital for positive change it may be advisable to be very aware of their financial return expectations and related investment decisions, similar to the question of which impact themes to focus on. Some investors might decide to focus on SDGs that

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appear to be neglected by most other private investors. The same applies to investor networks such as Toniic, for which educating their members regarding our and others' findings and aligning their platforms and activities accordingly might be relevant to their achieving their goal of advancing positive impact to the fullest. In sum, our findings provide rich, deep insights into how HNWIs practice impact investing and why, and what this implies for actors that want to benefit from that interest commercially, actors that are concerned with the achievement of the SDGs, and HNWIs themselves.

8 | LIMITATIONS AND FUTURE RESEARCH

We acknowledge certain limitations of our study and research approach. One limitation is that we focused our analysis on one investor group, albeit a particularly powerful one. We chose private HNWIs as our unit of analysis as they have outsized relevance to the mobilization of funding for sustainable development due to their economic significance and flexibility in how their capital is deployed. However, this can limit the universal applicability of our findings to investors more broadly. We therefore encourage further research, on other impact-oriented investor groups.

Furthermore, we did not differentiate between different types of impact-related investments. On the one hand, there are impact-aligned investments in which materiality is provided through past investment results, proved through benchmarked analysis or SDG alignment. Here, impact is defined by the output of the investment generally, but not by the impact that the specific investor achieved herself by deploying her specific sum of capital into that investment. On the other hand, there are impact-generating investments in which additionality is provided by the causal effect between the output and the underlying investment—that is to say, if the investment had not been made, the output would not have materialized. While we show that investors aim to make a positive impact with their investments, our research results say little about the depth of impact they are trying to achieve. While our results point to the prevalence of impact-aligned strategies across the SDGs, the investors could also intend to go beyond that and to be fully impact generating. This, however, is hard to measure—impact measurement in terms of causality between investment and change is a broad problem in research and practice. Furthermore, measuring the causality and depth of impact is not of direct relevance to our research question. Regardless of whether an investor aims for impact alignment or for impact generation, their interest in impact is motivated by a desire to effect positive social and environmental change and therefore confirms our research question that impact has become an important theme in financial markets.

In this vein, one might argue that our measure of impact, SDG alignment self-reported by HNWIs, limits confidence in our results. We agree that scholars should continue to find better approaches to measuring impact. Nevertheless, we also see some arguments in favor of our approach. Although the SDG alignment variable is derived from self-reported data, we find high intercoder reliability—that is to say, different investors mainly assigned the same SDG to the same security.[3] Once the impact measurement question has been better researched and there is better knowledge of how to capture impact-generating investments, portfolios should be studied to determine whether investors expect impact alignment or impact generation.

9 | CONCLUSION

Our results show that high-net-worth individuals aim to achieve real-word impact with their investments rather than merely making value-aligned investments or instrumentalizing sustainability for financial risk purposes. They predominantly invest in securities that make contributions to one or more SDGs in order to mobilize capital for sustainable development and to close funding gaps. At the same time, there is a clear preference for SDGs that are associated with high financial returns. As such, we confirm that the studied HNWIs expect attractive financial returns as well as impact. This points to a great potential for attracting (private) capital and closing the funding gap for some—mostly financially attractive—SDGs. But also to the likely risk that other—financially less attractive—SDGs remain underfunded.

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[3]This weakens concerns regarding the subjective grading of SDG alignment. For this test, we identified 231 unique securities that occur more than once in the data set and thus are candidates for a study of intercoder reliability. The different investors in our data set share the same association of specific SDGs with the majority of these securities (139 securities). We calculated the Herfindahl Index as a measure of the intercoder reliability for each security, meaning the level of agreement among investors regarding which SDGs relate to which securities. If all investors share the same opinion regarding one security, the Herfindahl Index would be 1; if all investors that invest in a specific security have distinct opinions on the SDG alignment of that security, the Herfindahl Index would be 1/18 (with 18 being 17 different SDGs plus 1 non-impact category). That is, the higher the Herfindahl Index, the more the investors agree on the same SDG(s). The summary statistics of the Herfindahl Index for the 231 securities that more than one investor invests in show an average Herfindahl Index of 0.78 and a median of 1. Moreover, the 25% quantile of the Herfindahl distribution is 0.63 and the minimum Herfindahl Index is 0.18. In summary, these statistics show that there exists high intercoder reliability in the data set.

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APPENDIX A

TABLE A1 Comparison of the 75, 100% network members and our sample

		75 members		Sample (60 members)	
		Absolute	**%**	**Absolute**	**%**
AUM	Single	37	49.3	30	50.0
	Double	31	41.3	25	41.7
	Triple	7	9.3	5	8.3
Type	Individual	40	53.3	34	56.7
	Foundation	20	26.7	16	26.7
	Family office	8	10.7	5	8.3
	Investment company	7	9.3	5	8.3
Investor geography	Europe	23	30.7	17	28.3
	USA and Canada	43	57.3	36	60.0
	Asia and Oceania	3	4.0	3	5.0
	Africa	1	1.3	1	1.7
	Middle East	4	5.3	2	3.3
	Latin America	1	1.3	1	1.7

Note: This table shows how our analyses are based on a representative sample of the 100% Network.

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