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THE IMPORTANCE OF RELATIVE ECONOMIC STANDING

A MIXED-METHODS QUANTITATIVE STUDY ANALYZING THE FINANCIAL PREDICTORS OF SUBJECTIVE WELL-BEING IN SWEDEN

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Abstract

The benefits attributable to higher levels of subjective well-being are many, making it both interesting and important to uncover its predictors. In recent years, effort toward this field of research has grown, specifically with regard to understanding its financial predictors. However, much is uncertain due to both contradictory findings and misconceptions related to the topic. Does money matter more in relative or absolute terms, and how do variables such as wealth and assets relate to subjective well-being? To investigate this, a mixed-methods quantitative study was used, consisting of a survey with over 2 000 responses and qualitative in-depth interviews with four industry experts. The results indicate that how we perform financially relative to others is more important for our subjective well-being than how we perform financially in absolute terms, measured by income and wealth. In addition, it was found that relative economic standing is related to well-being, regardless of income level. Instead, the relationship is moderated by loan attitude, with the strength of the relationship increasing for individuals with a positive attitude toward loans, and vice versa. Lastly, both wealth and assets were found to be significant predictors of subjective well-being. While asset ownership was significantly positively related with subjective well-being in general, evidence was found for its relationship being mediated by relative economic standing. This means that the positive association is only true if the asset ownership is also related with higher levels of relative economic standing. Combined, the implications contribute to the growing areas of social comparison and subjective well-being literature.

Keywords: *Subjective well-being, Relative economic standing, Wealth, Income,* and *Assets*.

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1. Introduction

Does money increase peoples' well-being, and does its absolute or relative dimension matter the most? This study intends to investigate whether relative economic standing is a stronger predictor of subjective well-being than absolute measures of economic standing, like income and wealth. In this study, relative economic standing is defined as how you estimate that you perform financially relative to others, with others being the respondent's own reference group and the national average. Comparatively, subjective well-being is defined using questions related to the respondents assessments of their own general life satisfaction, well-being and happiness. In addition, the study will investigate how wealth and ownership of different assets, which constitute a facet of wealth, relate to subjective well-being. By doing so, this paper will contribute toward social comparison literature, but also the growing field of subjective well-being more broadly. It should be acknowledged that the present paper will use abbreviations for relative economic standing (RES) and subjective well-being (SWB) throughout. To help remind the reader, the above variables will be written out at different times throughout the paper.

1.1. Background

Previous studies have identified well-being to have many benefits for society at large, but also for individuals more specifically. For instance, it has been found that happier people tend to live healthier and longer lives (Diener & Chan, 2011), report lower levels of mental distress and fewer sick days at work, have higher job stability and potentially even greater productivity in the workplace (Kansky & Diener, 2017). Related to the latter, higher levels of well-being also have the potential to boost the economy at large (Howell et al, 2016). Studies related to well-being have previously been restricted and kept separate from economics, but in recent decades significant progress in research has changed this perception. The science around subjective well-being revolves around concerns such as how it should be measured and what factors contribute toward it (Acosta-González & Marcenaro-Gutiérrez, 2023). The latter is of particular relevance for this paper, as future research has been encouraged to investigate its predictors, as such findings could lead to enduring benefits for everyone (Howell et al, 2016).

Considerable research effort has been devoted toward understanding the financial predictors

of subjective well-being, as will be discussed in further detail below, however much is still uncertain. The relationship between personal finance and SWB is important, because it is one associated with many misconceptions. For instance, while most individuals can accurately predict happiness levels of those with higher levels of income, the impact of income is greatly overestimated for those with lower income levels (Aknin et al, 2009). Even more importantly, misconceptions can also stem from contradictory findings made by different researchers, making it difficult for previously unaware readers to tell right from wrong. To exemplify, in the context of whether larger incomes make us happier, two researchers found that happiness increased steadily with income up to a certain point, before its effect began diminishing. However, a different researcher later found that happiness increased consistently with income, contradicting the previous study and giving rise to an adversarial collaboration between the researchers before the dispute was finally settled (Killingsworth et al, 2023).

In light of this, although the study's focus is one related to many assumptions, research is strictly needed in order to distinguish right from wrong. As will be mentioned later, more contradictory findings have been made in this field of research. It is therefore crucial for new studies to not only contribute with novel findings related to SWB, but also take an active role in investigating the replicability of previous studies, something the present paper will do.

1.2. Purpose and Contribution

In relation to previous studies, there is a body of literature that has looked at the relationship between different economic factors and SWB. A lot of studies have looked at **absolute economic measures** such as *income* (Headey et al, 2008; Headey & Wooden, 2004; Hochman & Skopek, 2013), *wealth* (Brulé & Suter, 2019; He et al, 2018; Headey et al, 2008; Headey & Wooden, 2004; Hochman & Skopek, 2013; Kasinger et al, 2023; Ng, 2013), and *assets* (Huang et al, 2016; Qiao & Cai, 2021; Rao et al, 2016), while many have looked at **relative economic measures** like *relative income* (Chin et al, 2020; Goerke & Pannenberg, 2015; McBride 2001; Yu, 2020), with some having looked at **both** (Brown & Gray, 2016; D'Ambrosio et al, 2020; Ferrer-i-Carbonell, 2005; Huang et al, 2016) in relation to *SWB*.

This has sparked a debate over whether absolute or relative economic measures have the highest impact on SWB. In the context of absolute and relative income, the absolute argument is that it makes it possible for individuals to meet certain universal needs, whereas

the relative argument touches upon the importance of social comparison (Diener et al, 1993), a theory that will be explained with further detail in the theoretical framework.

We intend on contributing to the literature by examining a new variable that has not previously been used, i.e. relative economic standing (RES). Some facets of it have already been studied, like *relative income* as previously mentioned, but also *relative wealth* (Brown & Gray, 2016). Although this has provided some clarity to the debate, especially those comparing relative with absolute measures, none have settled it broadly due to delimitations in the comparisons made. To elaborate, studies have only made comparisons between absolute and relative measures for one variable at the time e.g. only comparing absolute income with relative income, whereas no such comparisons have been made for wealth. As proposed by Hochman & Skopek (2013), the inclusion of other dimensions than income is needed to measure and understand economic standing (Hochman & Skopek, 2013). Related to this, incorporating multiple facets of economic standing contributes toward a more holistic understanding of personal finances (Brown & Gray, 2016). To the best of our knowledge, no previous studies have taken such an approach to assess individual economic standing.

Thus, by adopting this approach and including both absolute and relative aspects in the same study, where the latter aspect is ***not*** tied to a specific economic factor as has been previously, we seek to understand whether absolute or relative economic standing is most important for SWB. On one hand, the study will measure both income and wealth in absolute terms, and on the other hand it will measure individual economic standing in relative terms. The predictive power of both can thereafter be compared, while avoiding the pitfalls from previous studies.

In addition to this, previous studies have also called for future research to investigate the relationship between SWB and economic variables like *wealth* (Brulé & Suter, 2019) and *assets* (Ibid; Huang et al, 2016). Such requests have also been made implicitly with previous studies asking future research to investigate the relationship between SWB and economic factors beyond simply *income* (Brown & Gray, 2016; D'Ambrosio et al, 2020). Is wealth significantly related to SWB, and are all assets equally important for it? While this does not lie in the study's primary scope, i.e. to contribute to the above debate, the study has been extended to also accommodate these requests. This is due to its nature being closely related with the overarching purpose of this paper: To establish and compare financial predictors of SWB in Sweden, while simultaneously unveiling how they relate to SWB.

1.3. Hypotheses & Research questions

To make these contributions, the study will adopt a mixed-methods approach, a quantitative survey followed by qualitative expert interviews. Although multiple methods are used, the empirical findings are dominated by the quantitative method due to the ambition to generalize results. The identified areas of contribution have been formalized and compiled into four separate statements, of which two are hypotheses and two are research questions, something that will be explained in further detail in the theoretical framework. The four areas are:

- **H(1)**: *Relative economic standing is a more powerful predictor of subjective well-being than absolute measures of economic standing, like income and wealth.*
- **H(2)**: *Wealth is a significant predictor of subjective well-being.*
- **RQ(1)**: *Does income moderate the relationship between relative economic standing and subjective well-being, or are there any other moderators that influence it?*
- **RQ(2)**: *How does ownership of different asset classes relate to subjective well-being, and are there any mediators for this relationship?*

1.4. Delimitations

The first major delimitation of the paper relates to the assessment of subjective well-being's predictors, in that only the predictive power of economic factors will be investigated. The study acknowledges that the predictors of subjective well-being are not limited to only economic predictors. However, such predictors go beyond the scope of this paper.

The second major delimitation relates to the relationships investigated and type of tests used. The study will only test for linear relationships, e.g. by computing correlations and ordinary least squared (OLS) regressions. While the authors acknowledge relations between economic variables and subjective well-being can also be non-linear, as has been shown previously, the delimitation stems from limited practical understanding of how this is statistically tested.

The last major delimitation relates to the above, being that causality is not tested in this paper. While inferences related to causality require data from longitudinal studies, the present paper is primarily based on a cross-sectional study making such inferences impossible.

1.5. Disposition

The present paper will begin by presenting the theoretical framework, which introduces theories such as social comparison theory as well as findings from studies that have previously assessed economic predictors of SWB. In doing so, the paper will convey which theories and studies have contributed to the formulation of the study's hypotheses and research questions. The method section will thereafter present the quantitative survey and qualitative interview, followed by the results of these. To conclude, theoretical implications will be discussed, followed by the conclusions and suggested directions for future research.

2. Theoretical framework

The following theoretical framework will present key variables, previous research, and concepts that this study is based upon. It will begin with *Subjective well-being*, followed by the economic variables *Relative economic standing, Wealth, Income*, and *Asset ownership.*

2.1. Subjective well-being (SWB)

In measuring subjective well-being (SWB), there is a general consensus among previous studies that a general life satisfaction (GLS) question can be used to assess respondents' SWB (Brown & Gray, 2016; Chin et al, 2020; D'Ambrosio et al, 2020; Diener & Chan, 2011; Ferrer-i-Carbonell, 2005; Goerke & Pannenberg, 2015; Hochman & Skopek, 2013; Headey & Wooden, 2004; Headey et al, 2008; McBride, 2001; Yu, 2020). In doing so, several studies lay mention of an article published by Diener et al. (1999) which has found the GLS question to have acceptable levels of reliability and validity, with a test-retest reliability of approximately 0,6. They elaborate by explaining people can make quick and fairly accurate global judgments in surveys with regard to their life satisfaction (Diener et al, 1999).

Although many of the previous studies only measure SWB using a GLS-related question, many of them view happiness as interchangeable with SWB, using both terms synonymously. Some studies have acknowledged the risks that come from overly relying on a single-item measure for SWB, and have began including other facets into the construct, such as happiness (Chin et al, 2020; Huang et al, 2016; Ng, 2013; Qiao & Cai, 2021; Yu, 2020) indicating its nature is multifaceted. More importantly however, previous studies have encouraged future

research to examine a range of measures for SWB (Brown & Gray, 2016; Ng, 2013). How the study intends to take this into consideration will be explained further in the methods section.

2.2. Relative economic standing (RES)

The importance of relativity in SWB literature originates from social comparison theory. The theory, as described by Festinger (1954) revolves around individuals' goal of gaining accurate self-evaluations. By comparing oneself to others using different dimensions, individuals can reduce the uncertainty that exists in these dimensions, learning how to define oneself in the process. Also central to social comparison theory is the idea that media, status, and other types of competitiveness can affect an individual's self-esteem and mood (Festinger, 1954). The importance of social comparison became evident in a study published by Easterlin (1974) which found that relative status, especially when comparing individuals from the highest status group to those in the lowest status group, is an important determinant of happiness (Easterlin, 1974). In the context of this study, status can be translated to economic standing in relative terms, whereas mood takes the shape of SWB.

Individuals' tendency to socially compare themselves stems from a lack of objective information. However, even when both social and objective information is available, it has been found that social information has a higher influence due to its diagnostic nature (Miller et al, 2015). For instance, when social comparison theory is applied to income, it suggests a person's absolute income is not as meaningful as a person's relative income for happiness (Huang et al, 2016). A study tested this in China, Japan and Korea, and found supporting evidence for it in all three countries (Oshio et al, 2011), with a recent study making similar findings for self-reported health and well-being in the USA (Brady et al, 2023).

Thus, theory and previous research advocate for economic standing being, not just important from a relative standpoint, but also more important for SWB than absolute measures of economic standing. By extending findings that have been made related to income to the study's new construct, i.e. relative economic standing, this leads us to the first hypothesis:

- **H(1)**: *Relative economic standing is a more powerful predictor of subjective well-being than absolute measures of economic standing, like income and wealth*

Continuing, an observed phenomenon that has its roots in social comparison theory is the comparison effect. Similar to previously, a study compared the impacts of relative income with own income for well-being. In doing so, it was found that individuals tend to be happier the larger their income is in comparison to that of their reference group (Ferrer-i-Carbonell, 2005). To put it simply, individuals enjoy being rich, but they also enjoy being richer than others (Clark & Oswald, 1996), hence its name.

Contradictory findings have however been made in relation to the comparison effect's general applicableness. Some argue these economic comparisons are mostly upwards, i.e. they only matter when individuals are inferior to others. Such studies have found poorer individuals' well-being to be negatively influenced by earning a lower income than their reference group, whereas those that are richer do not get higher well-being from earning more than the average (Ferrer-i-Carbonell, 2005; Goerke & Pannenberg, 2015). However, a different study found evidence for the opposite, arguing such comparisons are mostly downwards, i.e. that they only matter when individuals are superior to others. The study found that relative income's effect on SWB is much stronger at higher income levels and that the effects of relative income appear to be smaller at low income levels, as income in absolute terms becomes more important (McBride, 2001). Although both studies indicate that the strength of relativity changes with the respondent's absolute income, they arrive at vastly different conclusions. To further complicate this, a recent paper found contradictory evidence of both previous findings, stating the relationship between relative income and SWB is monotonic. To elaborate, it means that both positive effects of earning relatively more and negative effects of earning relatively less are observed, irrespective of absolute income (Yu, 2020).

In regard to whether income may moderate this relationship, it is uncertain to which degree findings can be extended to the new construct of RES given contradictory findings. As such, the study will openly explore if income or other variables moderate the relationship between RES and SWB. This leads us to the study's first research question, formulated as:

- **RQ(1)**: *Does income moderate the relationship between relative economic standing and subjective well-being, or are there any other moderators that influence it?*

2.3. Wealth

From relative economic standing to absolute measures of economic standing, this brings us to the economic variable of wealth. Previous studies have found wealth to be a significant predictor of SWB (Brown & Gray, 2016; He et al, 2018; Kasinger et al, 2023; Ng, 2013). Recent findings even suggest increases in long-run wealth can be more efficient to improving individuals' well-being than increases in long-run income (D'Ambrosio et al, 2020).

Comparing wealth to income, some have found that wealth is as important (Headey & Wooden, 2004) for SWB, whereas others have found it to be more important than income due to its lower volatility, while also being more useful during periods of economic instability (Brulé & Suter, 2019). Wealth's emergence in SWB literature generally concerns its link to economic security, especially during times of economic turbulence (Brown & Gray, 2016; Brulé & Suter, 2019; D'Ambrosio et al, 2020; Headey et al, 2008; Kasinger et al, 2023).

Although a previous study in 2013 found that SWB was not related with wealth in Sweden (Hochman & Skopek, 2013), acknowledging the conditions and characteristics at present entail the hypothesis should be revisited. To exemplify, Sweden has one of the highest private indebtedness levels worldwide, with the debt to GDP ratio having increased from 40% in 1995 to approximately 90% in 2020. In addition, a majority of the debt held by Swedish households does not have a fixed interest rate, meaning households are particularly sensitive to changes in the interest rate (Oxenstierna, 2020, p. 83). This should be alarming given debt has a negative influence on SWB (Brown & Gray, 2016; Keese & Schmitz, 2014), especially considering many households also hold a limited amount of savings, positioning them as vulnerable to financial shocks (Brown & Gray, 2016). Additionally, a recent report by the Swedish Fiscal Policy Council revealed wealth inequality may have increased in recent years, although it is not known for certain due to insufficient data (Finanspolitiska rådet, 2024).

While wealth was initially considered only due to its importance as a measure for absolute economic standing, a reassessment of its predictive power is highly relevant as a result of the changed circumstances. This is especially true in relation to the recent economic turbulence, with inflation and interest rates in Sweden being at their highest levels since the financial crisis (Milne, 2022). This makes the economic security that comes with wealth more important now than what was previously the case, leading to the study's second hypothesis:

➢ **H(2)**: *Wealth is a significant predictor of subjective well-being*

2.4. Income

From one measure of absolute economic standing to another, we introduce income. As outlined by previous research, the relationship between absolute economic standing and SWB, using income, has already been extensively investigated (Carver & Grimes, 2019; Hochman & Skopek, 2013). Similar to wealth, multiple studies have found income to be a significant predictor of SWB (Chin et al, 2020; Easterlin, 1974; Headey et al, 2008; Huang et al, 2016) although the magnitude of its predictive power is largely debatable (Headey et al, 2008; Hochman & Skopek, 2013).

In light of this, and having the study's primary purpose in mind, the present paper will not investigate the relationship between income and SWB further. However, the variable will be included due to its relevance in measuring absolute economic standing, as mentioned by previous studies (Carver & Grimes, 2019; Hochman & Skopek, 2013).

2.5. Asset ownership

In contrast to both income and wealth, and as previously mentioned, the relationship between asset ownership and SWB is not well-documented, even though it is a facet of wealth that warrants more attention. Brown & Gray (2016) explored it to some extent, finding that SWB, when defined as general life satisfaction, is positively correlated with assets (Brown & Gray 2016). Huang et al (2016) made similar findings, in that assets are a significant and positive predictor of SWB, when it is defined as happiness, and that policies aimed at encouraging asset building may promote happiness (Huang et al, 2016).

In a study published by Rao et al. (2016) it was discovered happier households in China invest a larger share of assets in the stock market directly, or indirectly through mutual funds, than less happier households (Rao et al, 2016). However, contradictory findings were made in a different Chinese study investigating the effects of different financial assets on SWB, when defined as happiness. In contrast to the previous study, Qiao and Cai (2021) found that financial assets held at the bank or similarly had a positive impact on happiness, whereas financial assets invested in the stock market significantly reduced individuals' happiness.

With gains and losses from financial investments not affecting happiness among respondents, the researchers hypothesize the effect of uncertainty could mediate the relationship between financial assets and happiness (Qiao & Cai, 2021).

Due to a lack of previous research, as well as conflicting findings from previous studies, the present study will investigate the extent of such a relationship, while also openly exploring potential mediators for it. The second and last research question is therefore formulated as:

- **RQ(2)**: *How does ownership of different asset classes relate to subjective well-being, and are there any mediators for this relationship?*

3. Method

3.1. Research design

To investigate the hypotheses and research questions, the study has adopted a sequential mixed-methods approach; a quantitative method followed by a qualitative method. The combination of quantitative and qualitative methods has become increasingly popular the past two decades, where it has been common to combine a survey with expert interviews (Hardaker et al, 2022). Despite the adoption of a mixed-methods approach, the empirical findings are quantitatively dominant due to the primary objective of generalizing results to the Swedish population, with the qualitative method primarily serving an explorative purpose. As suggested by previous research, exploratory research can provide explanations to empirical findings, when the theoretical framework is unable to provide plausible reasons (Lyu et al, 2023). In other words, when the qualitative method follows the quantitative method, it can be used to fill in the gaps from the data analysis (Bell et al, 2019, p. 576-578). Additionally, exploratory research facilitates establishment of priorities for future research (Malhotra & Dash, 2016, p. 72), which will be brought up toward the end of this paper.

3.1.1. Quantitative Survey

The quantitative method consists of a cross-sectional study, facilitating inference making for a population at a single point in time, while establishing preliminary evidence for more

advanced future studies (Wang & Cheng, 2020). In conducting the study, a survey was constructed using Qualtrics, and distributed using a mail panel with the help of Origo Group. The advantage of mail panels is that they can be used to obtain information from the same respondents repeatedly, making it possible for an external party to assess the reliability of the empirical findings, as well as explore causality between different variables in the future (Malhotra & Dash, 2016, p. 192). The survey consisting of all questions can be found toward the end of this paper (see Appendix 1).

In terms of sample size, the goal of the survey was to reach a sample size in the 1 000 - 1 999 range due to the study's primary objective, being generalizability of results. Although there is no consensus on how large the minimum sample size has to be, similar studies have used sample sizes of 1 000 - 1 999 respondents (Hochman & Skopek, 2013; McBride, 2001). Larger studies have used sample sizes in the ranges of 5 000 - 15 000 respondents (Ferrer-i-Carbonell, 2005; Goerke & Pannenberg, 2015; Kasinger et al, 2023), but due to budget constraints a relatively lower sample size had to be used.

Before distribution, age restrictions were placed on respondents to ensure reliability of the data collection. On the lower end, a minimum age of 18 was chosen due to questions relating to net worth, where respondents below this age would yield limited insights due to the inability to take on debt (Swedbank, 2023). On the upper end, a maximum age of 75 was chosen, as respondents above this age would yield limited insights due to the difficulty of being granted new loans, including mortgages (Konsumenternas, n.d.). After restrictions were placed, the survey was distributed from the 15th of March until the 26th of March in 2024.

3.1.2. Qualitative Interviews

The qualitative method consists of semi-structured in-depth interviews, which were conducted with four different experts. The experts were chosen using a purposive sampling method, where each of them fulfilled different criteria including long work experience, either directly or indirectly related to the topic. The purposive sampling method facilitates better matching of experts with the objectives of the research, increasing the rigor and trustworthiness of the study (Campbell et al, 2020). When experts shared thoughts of particular relevance, the probing technique was used to elicit clarifications, for instance by asking for explanations to previously stated answers (Malhotra & Dash, 2016, p. 402-403).

Continuing, most articles suggest 5-50 participants is a satisfactory sample size for expert interviews (Dworkin, 2012). However, due to time constraints the study's sample size is slightly below this range, which has to be taken into consideration in terms of reliability.

The interviews took place physically on the 24th of April and digitally on the 26th of April in 2024, with the latter being due to convenience purposes on behalf of the experts. The interviews' duration ranged from 30 to 60 minutes, which were conducted, recorded and transcribed with the consent of all experts. In transcribing the interviews, an AI-tool was used to facilitate the transcription process, all of which is described in further detail toward the end of this paper (see Section 8: Disclosure related to Generative AI-tools used). In addition, experts have given verbal consent to being public with statements in this study. By informing experts of statements we intended to bring up and receiving formal approval from all experts prior to submission to avoid misinterpretations, the reliability of the qualitative method was fostered (Bell et al, 2019, p. 363).

3.2. Measurement scales

In conducting the study, and as indicated by the theoretical framework, key measures had to be constructed. Below the five most important measures have been presented, being *Subjective well-being*, *Relative economic standing*, *Wealth*, *Income*, and *Asset ownership*.

3.2.1. Subjective well-being (SWB)

As suggested by previous research, several questions will be used to assess the multiple facets of SWB. Although questions related to GLS and happiness have previously been used in SWB constructs, previous studies have to the best of our knowledge not included explicit questions related to well-being, something this study intends on doing. By incorporating multiple facets, each measuring its own dimension of SWB, the present study seeks to compute a more comprehensive measure, which should improve construct validity (Bell et al, 2019, p. 46). In addition, although previous research has relied on measurement scales ranging from 1-5 to 1-10, the present study will adopt a wider 1-100 scale in order to measure the construct with higher accuracy. However, it should be noted these changes could negatively affect replicability, as the adoption of different measures by researchers risks

leading to different outcomes, which needs to be taken into consideration.
In light of this, the questions that will be used in the survey are related to either (**1**). **General life satisfaction**, (**2**). **Well-being**, or (**3**). **Happiness**. All three survey questions were almost identically formulated, being *"On a scale from 1-100, where would you place your life right now with regard to your /.../"*, where the dimension of interest, written in bold above, replaced the /…/ in the quotation marks. The only exception was dimension (**1**), which was formulated as *"**Ideal life situation**"* in the survey. The question was formulated this way to make it more tangible and easier for respondents to answer, with studies having formulated the GLS question similarly previously. The scale ranged from 1-100, with each end marked *Lowest* and *Highest* respectively, while the middle was marked with *Average*.

The three questions were thereafter indexed to create a single measure for SWB. Before indexing, a reliability analysis was run to ensure satisfactory internal reliability. With a cronbach's alpha of 0,863, above the cutoff value of 0,6 (Malhotra & Dash, 2016, p. 291) or 0,7 as is common in other literature (Taber, 2018), the index was safely computed. In all future references to SWB, directly or indirectly, we refer to this index unless otherwise said.

3.2.2. Relative economic standing (RES)

Similar to SWB, two separate questions will be used to assess RES, with each question measuring its own dimension. As outlined in social comparison theory, comparisons can be made with real or imagined others (Miller et al, 2015). In formulating questions that concern economic comparisons, we consider the respondent's close reference group, i.e. real others, like family and friends. However, studies have found the respondent's motive could influence the reference group they choose to compare themselves against. For instance, Crucius et al. (2022) found that those that strive for self enhancement tend to compare themselves with inferior others, whereas those that strive for self improvement compare themselves with superior others (Crucius et al, 2022). This could lead to a misleading measurement of relative economic standing, as it highly depends on the reference group that the respondents choose.

By also including a distant point of comparison, like the national average, this discrepancy is to some degree circumvented. That is because the national average is more difficult to manipulate than the respondent's own reference group. Further, while economic standing in relation to one's reference group can be used to approximate economic standing in relation to

the average, they must not coincide and therefore make for a more comprehensive measure when taken together.

In light of this, the survey questions are related to the respondent's RES compared to their (**1**). **Close reference group**, and (**2**). **Distant reference group**. Also these questions were almost identically formulated in the survey, being *"On a scale from 1-100, do you have it financially better or worse than /.../"*, where the dimension of interest, written in bold above, replaced the /…/ in the quotation marks. The first dimension (**1**) was formulated as *"**Your surroundings (friends, family, etc.)**"*, whereas the second dimension (**2**) was formulated as *"**Sweden's population**"* in the survey. The scale ranged from 1-100, with each end marked *Lowest* and *Highest* respectively, while the middle was marked with *Median*.

An index of these two questions was then created in much the same way as for SWB after passing the reliability analysis, which showed a cronbach's alpha of 0,809, above the cutoff values previously mentioned. In all future references to RES, directly or indirectly, we refer to this index unless otherwise said.

3.2.3. Wealth

With regard to the measurement of wealth, the difficulties of finding sufficient data voiced by the Swedish Fiscal Policy Council have also appeared in research. Brulé and Suter (2019) argue respondents find it difficult to evaluate wealth, especially if asked one-shot questions, typically leading individuals or households to underestimate their wealth (Brulé & Suter, 2019). Several studies advise measuring several components of wealth to gain more accurate estimates, e.g. by having multiple questions related to assets and debt (D'Ambrosio et al, 2020; Headey et al, 2008; Huang et al, 2016) reducing the aggregation bias mentioned above.

To measure wealth, respondents were therefore asked several questions relating to their asset and debt ownership. The questions were *"Approximately, how much money do you have in savings in total (bank account, stocks etc.)? /.../"*, *"Approximately, how much is the total value of all of your other assets (properties, vehicles etc.)? /.../"* and *"Approximately, what is the total value of all of your loans? /.../"*, where each sentence ended with *"Please state your answer in numbers (SEK) without spacing"*, replacing the /…/ in the quotation marks above. The questions were conditioned to only permit answers ≥ 0 to avoid misinterpretations and

faulty data points. The wealth variable was thereafter computed by netting the answers to these questions. Note that although a lower limit was set for these questions prior to data collection, no upper limit was set introducing the study to risks such as extreme outliers. How these risks have been handled will be brought up in the beginning of the results section.

3.2.4. Income

To measure income, an annual pre-tax question was used similar to previous studies. More precisely, respondents were asked *"Approximately, how large is your total annual salary before taxes"*. In answering this question, respondents had to choose from a number of predetermined alternatives. The predetermined alternatives ranged from *"Below 100 000 sek"* to *"Above 1 400 000 sek"*, where each alternative inbetween was separated by 100 000, e.g. *"100 001 - 200 000 sek"*, *"200 001 - 300 000 sek"* etc. For respondents either unsure or not willing to disclose their salary, there was a *"Do not want to disclose"* alternative.

3.2.5. Asset ownership

To measure asset class ownership, respondents were asked *"If any, which of the below assets do you currently own?"*. In answering this question, the respondents had to choose from a number of predetermined alternatives. The predetermined alternatives included *Money*, *Vehicles*, *Shares*, *Shares in own company*, *Funds*, *Bonds*, *Own property*, *Rental property* and *Alternative investments (metals, cryptocurrencies etc.)*. For asset classes that fall outside of these alternatives, respondents could choose an alternative labeled *"Other assets"*.

3.3. Data analysis

3.3.1. Statistical issues

The results section related to the hypotheses heavily relies on ordinary least squares (OLS) regressions, meaning common statistical issues like multicollinearity, autocorrelation and heteroscedasticity had to be accounted for to ensure the reliability of the quantitative findings. Firstly, **multicollinearity** has been checked using the *condition index* for each of the regression analyses, with most regressions being in the lower end of the 10-20 medium collinearity spectrum, and a few in the 0-10 low collinearity spectrum. As suggested by theory, this is satisfactory given condition indexes greater than 30 indicate strong collinearity

(Kennedy, 2008, p. 199). Secondly, **autocorrelation** has been checked using the Durbin Watson test, where the *d statistic* lies in the 1,921 - 1,976 range for all regressions, which is close to the 2,000 point that reflects no autocorrelation exists (Ibid, p. 119). Lastly, **heteroscedasticity** has been checked visually by plotting the residuals for all regressions and ensuring normal distribution, i.e. not considerably larger for some X values than others (Williams, 2020). Due to the subjective nature of how heteroscedasticity has been checked for, the plots used to make this assessment have been included and are found toward the end of this report, making cross-checking possible for those that wish to do so (see Appendix 2).

3.3.2. Control variables

After distribution, the sample size of the cross-sectional study totalled 2 126 respondents, surpassing the 1 000 - 1 999 target range previously mentioned. However, this is before adjusting for control variables. To ensure reliability of the survey sample, two types of control variables were used. The first control variable relates to whether respondents had finished the survey or not, where the 122 who had not were excluded prior to data analysis. The second control variable relates to whether respondents had answered the control question at the end of the survey correctly or not, which asked respondents what the survey was about, with the three alternatives being: (**1**). Economics and well-being, (**2**). Computer games, and (**3**). Chemical designations. The respondents who answered incorrectly, i.e. anything other than (**1**), were excluded. Adjusting for these controls, the survey totalled 1 885 respondents.

4. Results

Introducing the results section, the first part will present the **quantitative** results. The quantitative part begins by explaining the adjustments that have been made to the data on a general basis prior to data analysis, before presenting the results. The quantitative findings will thereafter be presented by first displaying the descriptive statistics of the survey, followed by a sequential assessment of hypotheses and research questions. In the second part of the results section the **qualitative** results will be presented. This will be done using a table, where key reflections from all four experts have been compiled.

4.1. Quantitative results

As mentioned above, before the quantitative results are presented the treatment of certain measures has to be explained, as the measures for wealth and income respectively have been subject to minor adjustments.

Beginning with income, all respondents that chose the "*Do not want to disclose*" alternative were excluded from the results section where the income variable had been used. This adjustment reduced the sample size by 7,5% from 1 885 to 1 744 responses, and was done to ensure the answers did not affect correlations and regressions where income was used.

Continuing, given that questions related to the total value of respondents' assets and liabilities had no upper limit in the survey, this led to extreme outliers once wealth was computed. This became apparent when the mean and median wealth was compared, but also when the distribution was graphically displayed using scatter plots. While the median respondent's wealth was 160 000 SEK, mean wealth was $5{,}305 \times 10^{31}$ SEK.

The risk from not removing outliers in the data is that they can hamper the results. For instance, outliers can not only distort statistical summaries, making them misleading as indicated above, but they can also distort correlations (Siegel, 2012, p. 308) as well as regressions (Newbold et al, 2020, p. 428). As suggested by Siegel, extreme outliers should be removed if it is justifiable (Siegel, 2012, p. 308). With the study's primary objective in mind, and recalling that correlations and regressions are a large part of this study, extreme values were therefore removed from the wealth variable.

In addition to the control variables previously mentioned, only wealth in the - 2 MSEK (negative) to 10 MSEK (positive) range were included, reducing the sample size by 5% from 1 885 to 1 791 responses. To verify if outliers were removed successfully, scatter plots were used as suggested by the previous authors (Ibid; Newbold et al, 2020, p. 52), all of which can be found toward the end of the study (see Appendix 3). Similar to income, adjustments were only done for parts in the results section where wealth had been used. Taking the above mentioned adjustments into account, it is these answers that lay the foundation for the study at large and the empirical findings that follow in the sections below.

4.1.1. Descriptive statistics

This section aims to present the overarching descriptives of the survey. These are divided in two parts, being (**1**). Descriptives of respondents, and (**2**). Descriptives of key measures.

Descriptives of respondents

Beginning with age distribution, an overview has been compiled in Table 1 below. The respondents have been separated using age groups by years of ten, sorted in ascending order from the youngest to oldest age group. The median respondent was 46 years old ($\bar{x}$ = 45,87).

	Count	Percent
18-19	71	3,8
20-29	278	14,7
30-39	396	21,0
40-49	320	17,0
50-59	369	19,6
60-69	296	15,7
70-75	155	8,2
Total	1885	100,0

Table 1: Age representation of respondents, separated by years of ten.

With regard to the survey's geographical representation, an overview has been compiled in Table 2 below, sorted in descending order from most represented to least represented geographical area. The table illustrates the survey's degree of geographical diversity with regard to the geographical origin of respondents. It speaks for the representativeness of the survey sample, which is important for making inferences about the Swedish population.

	Count	Percent
Stockholm	388	20,6
Western Sweden	356	18,9
Eastern Mid-Sweden	327	17,3
Southern Sweden	276	14,6
Northern Mid-Sweden	182	9,7
Småland	168	8,9
Nothern Norrland	114	6,0
Mid-Norrland	73	3,9
Not specified	1	0,1
Total	1885	100,0

Table 2: Geographical distribution of respondents, separated by geographical areas.

Descriptives of key measures

- **SWB**: As a reminder, the SWB-related questions ranged from 1-100, with each end marked *Lowest* and *Highest* respectively, while the middle was marked with *Average*. The median SWB was 58 ($\bar{x}$ = 56,1), indicating respondents on average rated their SWB to be slightly above average.

- **RES**: The RES-related questions also ranged from 1-100, with the only difference to above being that the middle was marked with *Median* instead of *Average*. The median RES was 50 ($\bar{x}$ = 48,8), indicating respondents on average rated their RES around or slightly below average.

- **Wealth**: As previously explained, the median wealth was 160 000 SEK.

- **Income**: The median pre-tax annual income was 300 001 - 400 000 SEK a year, slightly below the median annual pre-tax income of 410 400 SEK in Sweden (SCB, 2023).

- **Asset ownership**: The median number of asset classes owned by respondents was 3 ($\bar{x}$ = 2,9), of which the most commonly owned asset classes were: (**1**) Money, (**2**) Vehicles, and (**3**) Own property, all of which is disclosed in further detail in the upcoming section.

4.1.2. Hypothesis and Research Question results

In the following section, the results that constitute the foundation for assessment of the study's hypotheses and research questions are presented. The results are organized sequentially, and will begin by collectively presenting the two hypotheses as they draw insights from the same statistical tests. This will be followed by separate assessments of the study's two research questions.

The first part of the results will assess the below hypotheses:

➢ **H(1)**: *Relative economic standing is a more powerful predictor of subjective well-being than absolute measures of economic standing, like income and wealth*

➢ **H(2)**: *Wealth is a significant predictor of subjective well-being*

To assess the above hypotheses, a regression analysis will be conducted. However, prior to this Pearson correlations were run to get an indication of which economic variables have the strongest correlation with subjective well-being, as well as how they relate to one another. In addition, it makes it possible to see how the strength of individual correlations compare when multiple variables are later included in the regression analysis. The correlation findings have been summarized in Table 3 below, sorted by those most correlated to least correlated with subjective well-being from left to right. In the table '***' denotes statistical significance at the 0,001 level.

Variable	1	2	3	4	5
1. Relative economic standing	—				
2. Asset class ownership	,412***	—			
3. Income	,444***	,417***	—		
4. Wealth	,314***	,525***	,382***	—	
5. Subjective well-being	,678***	,376***	,339***	,288***	—

Table 3: Correlation matrix between different economic variables and subjective well-being.

Findings indicate relative economic standing has the strongest relationship (r = 0,678) with subjective well-being, compared to income (r = 0,339) and wealth (r = 0,288). Further, the correlations table shows all three variables are significantly positively correlated with SWB (sig. < 0,001), making all of them valid candidates for the regression analysis.

The general setup for the ordinary least-squares regression (OLS) is as follows:

$$Y_i = \beta_0 + \beta_1 R + \beta_2 I + \beta_3 W + \varepsilon_i$$

where $\mathbf{Y_i}$ denotes Subjective well-being; **R** denotes Relative economic standing; **I** denotes Income; **W** denotes Wealth; and ε_i is an error term capturing unobservable factors' influence. This leads us to the OLS regression, which has been graphically presented in Figure 1 below. In the figure, '***' denotes statistical significance at the 0,001 level, 'β' denotes standardized coefficient beta, and 'SE' denotes the coefficient standard error.

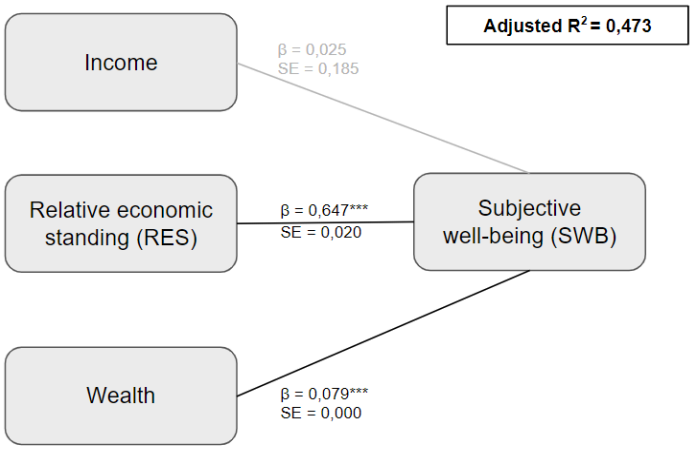

Figure 1: OLS regression with Income (*IV*), RES (*IV*), Wealth (*IV*), and SWB (*DV*).

The adjusted R^2 (0,473) indicates a fairly strong regression, as almost half of the variance in the dependent variable (*DV*) can be explained using the independent variables (*IV*). However, it should be noted that *income* is not a statistically significant predictor of SWB in the OLS regression (sig. = 0,220), which is indicated by its gray features in the figure above.

In contrast, both *relative economic standing* and *wealth* are statistically significant predictors of SWB in the OLS regression (sig. < 0,001). In addition, the regression shows *relative economic standing* is a stronger predictor of SWB (β = 0,647) than wealth (β = 0,079). As such, supporting evidence is found for both of the study's hypotheses.

The second part of the results will explore the first research question, which is:

- **RQ(1)**: *Does income moderate the relationship between relative economic standing and subjective well-being, or are there any other moderators that influence it?*

In exploring whether income or other variables moderate the relationship between relative economic standing (RES) and subjective well-being (SWB), correlations were computed and compared using four different variables. The moderators that have been tested and compared against each other are: (**1a/1b**). Positive loan attitude / Negative loan attitude, (**2a/2b**). Male respondent / Female respondent, (**3a/3b**). Income (top 25%) / Income (bottom 25%), and (**4a/4b**). Wealth (top 25%) / Wealth (bottom 25%). Note that top 25% and bottom 25% denote respondents adhering to the top 25% and bottom 25% of the income and wealth distribution in the survey respectively. These figures are after adjusting for problems such as extreme

outliers, as has been explained in greater detail previously.

The moderation investigation began by computing Pearson's correlations between SWB and RES using the different moderators. The differences in the correlations were thereafter compared using the Fisher's Z method. In Table 4 below, a summary of the moderation tests has been presented, sorted in ascending order from most to least statistically significant differences. The significance levels can be found toward the right in the same table.

	r between SWB and RES (moderator = a)	r between SWB and RES (moderator = b)	difference in r	r comparison significance level
1a. Positive loan attitude 1b. Negative loan attitude	0,746*** (N = 580)	0,634*** (N = 1305)	0,112	< 0,001
2a. Male respondent 2b. Female respondent	0,692*** (N = 922)	0,657*** (N = 963)	0,035	0,082
3a. Income (top 25%) 3b. Income (bottom 25%)	0,623*** (N = 422)	0,665*** (N = 428)	0,042	0,148
4a. Wealth (top 25%) 4b. Wealth (bottom 25%)	0,654*** (N = 488)	0,661*** (N = 493)	−0,007	0,424

**** denotes significance level below 0,001*

Table 4: Summary table of moderation tests for the relationship between RES and SWB.

The results show neither gender (sig. = 0,082), income (sig. = 0,148) or wealth (sig. = 0,424) moderate the correlation between SWB and RES with statistical significance. However, a statistically significant difference was identified for loan attitude (sig. < 0,001). To elaborate, a positive loan attitude among respondents significantly increased the strength of the correlation between SWB and RES, compared to if respondents had a negative loan attitude.

The identified moderator **loan attitude** is based on a question in the survey that asked respondents to rate their general attitude toward loans. More specifically, respondents were asked *"On a scale from 1-100, what is your general attitude toward taking loans?"*. The scale ranged from 1-100, with each end marked *Very negative* and *Very positive* respectively, while the middle was marked with *Neutral*. Thereafter groupings based on this question were computed, where respondents that had answered > 50 were labeled as having positive loan attitude, whereas those that had answered < 50 were labeled as having negative loan attitude.

The identified moderator was also tested on the previous regression (see Figure 1) to assess whether its moderation would increase and decrease the coefficient beta of relative economic standing, respectively, also when other variables are present. The regression, adjusted to only include respondents with positive loan attitude, has been presented in Figure 2 below, while

one including only those with negative loan attitude has been presented in Figure 3 further below. In the figures, '***' denotes statistical significance at the 0,001 level, '*' denotes statistical significance at the 0,05 level, 'β' denotes standardized coefficient beta, and 'SE' denotes the coefficient standard error.

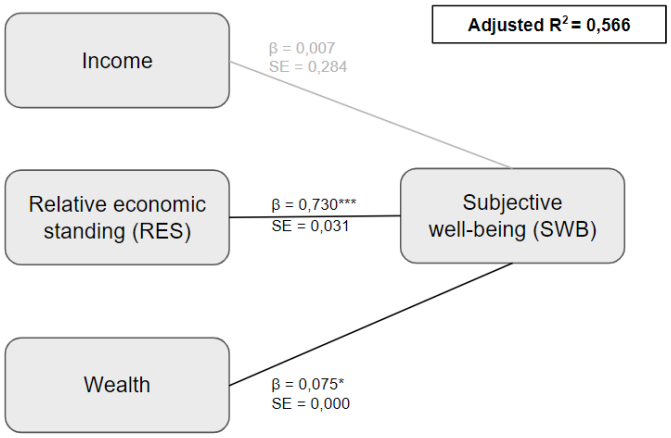

Figure 2: OLS regression with Income (*IV*), RES (*IV*), Wealth (*IV*), and SWB (*DV*), only accounting for respondents with a *positive attitude toward loans*.

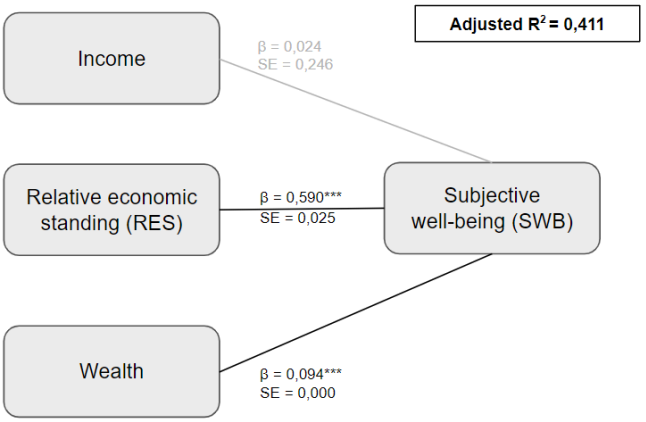

Figure 3: OLS regression with Income (*IV*), RES (*IV*), Wealth (*IV*), and SWB (*DV*), only accounting for respondents with a *negative attitude toward loans*.

Supporting evidence for loan attitude moderating the relationship between RES and SWB also when other variables are present is found by comparing the regression that was subject to positive loan attitude moderation (see Figure 2) with the regression subject to negative loan attitude moderation (see Figure 3). This is observed through the predictive power of RES, being higher when respondents have positive loan attitude (β = 0,730) than when respondents

have negative loan attitude (β = 0,590). Although findings reject income as a moderator for the relationship between RES and SWB, supporting evidence is found for loan attitude.

The third and final part of the results will explore the second research question, which is:

- **RQ(2)**: *How does ownership of different asset classes relate to subjective well-being, and are there any mediators for this relationship?*

In exploring whether ownership of different asset classes relate to subjective well-being, an OLS regression will first be presented to indicate whether asset ownership is a predictor of subjective well-being, before delving into the individual asset classes relation to it and examining whether any variables mediate such a relationship.

The general setup for the ordinary least-squares regression (OLS) is as follows:

$$Y_i = \beta_0 + \beta_1 M + \beta_2 V + \beta_3 S + \beta_4 Soc + \beta_5 F + \beta_6 B + \beta_7 Op + \beta_8 Rp + \beta_9 Ai + \beta_{10} Oa + \varepsilon_i$$

where $\mathbf{Y_i}$ denotes Subjective well-being; **M** denotes Money; **V** denotes Vehicles; **S** denotes Shares; **Soc** denotes Shares in own company; **F** denotes Funds; **B** denotes Bonds; **Op** denotes Own property; **Rp** denotes Rental property; **Ai** denotes Alternative investments (metals, cryptocurrencies etc.); **Oa** denotes Other assets; and ε_i is an error term. This leads us to the OLS regression, which has been graphically presented in a simplified form in Figure 4 below.

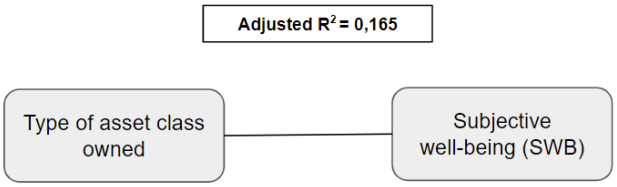

Figure 4: OLS regression with Asset class ownership (*multiple IV's*) and SWB (*DV*).

The adjusted R^2 (0,165) indicates a linear relationship exists between ownership of different asset classes and subjective well-being. However, the adjusted R^2 is not as high as the R^2 in the first regression seen in Figure 1 (0,473), indicating a weaker relationship than the one between income, relative economic standing and wealth with subjective well-being.

To observe how ownership of different asset classes relate to subjective well-being, mean levels of SWB were computed for respondents that own (= y) and do not own (= n) each of the asset classes. Differences in means were then assessed using independent sample t-tests.

	SWB $\bar{x}$ (Ownership = y)	SWB $\bar{x}$ (Ownership = n)	Difference in SWB $\bar{x}$	Mean comparison significance level
Bonds	69,7 (N = 98)	55,3 (N = 1787)	14,4	< 0,001
Rental property	69,2 (N = 78)	55,5 (N = 1807)	13,7	< 0,001
Shares in own company	69,1 (N = 76)	55,5 (N = 1809)	13,6	< 0,001
Money	59,6 (N = 1363)	46,8 (N = 522)	12,8	< 0,001
Own property	62,5 (N = 877)	50,4 (N = 1008)	12,1	< 0,001
Vehicles	60,7 (N = 1135)	49,1 (N = 750)	11,6	< 0,001
Funds	61,4 (N = 857)	51,6 (N = 1028)	9,8	< 0,001
Shares	62,3 (N = 600)	53,2 (N = 1285)	9,1	< 0,001
Alternative investments (metals, cryptocurrencies etc.)	59,8 (N = 170)	55,7 (N = 1715)	4,1	0,022
Other assets	49,2 (N = 253)	57,1 (N = 1632)	−7,9	< 0,001

Table 5: Comparing subjective well-being (SWB) means based on ownership and non-ownership of different asset classes using independent sample t-tests.

The results of the independent sample t-tests have been summarized above in Table 5, sorted in descending order from largest to smallest differences in mean SWB. The significance levels can be found toward the right in the same table. The results show asset ownership was related with higher levels of subjective well-being for 8/10 asset classes (sig. < 0,001) or 9/10 asset classes (sig. < 0,05) depending on the applied significance level. The only asset class alternative not associated with higher levels of subjective well-being was *Other assets*. Respondents that owned this asset class had a statistically significant (sig. < 0,001) lower mean SWB ($\bar{x}$ = 49,2) than those who did not own it ($\bar{x}$ = 57,1). As such, supporting evidence can be found for asset class ownership generally being related with higher levels of SWB.

In examining potential mediators for the relationship between asset class ownership and subjective well-being, it became apparent that relative economic standing mediates this relationship based on findings in Table 6 below. Similar to the table above, the study sought to examine how asset class ownership relates to relative economic standing. Mean levels of

RES were therefore computed for respondents that own (= y) and do not own (= n) each of the asset classes, with mean differences being tested using independent sample t-tests.

	RES x̄ (Ownership = y)	RES x̄ (Ownership = n)	Difference in RES x̄	Mean comparison significance level
Bonds	65,3 (N = 98)	47,8 (N = 1787)	17,5	< 0,001
Rental property	62,0 (N = 78)	48,2 (N = 1807)	13,8	< 0,001
Shares in own company	65,6 (N = 76)	48,0 (N = 1809)	17,6	< 0,001
Money	52,9 (N = 1363)	38,0 (N = 522)	14,9	< 0,001
Own property	55,5 (N = 877)	42,9 (N = 1008)	12,6	< 0,001
Vehicles	53,2 (N = 1135)	42,1 (N = 750)	11,1	< 0,001
Funds	54,6 (N = 857)	43,9 (N = 1028)	10,7	< 0,001
Shares	57,2 (N = 600)	44,8 (N = 1285)	12,4	< 0,001
Alternative investments (metals, cryptocurrencies etc.)	55,0 (N = 170)	48,1 (N = 1715)	6,9	< 0,001
Other assets	40,3 (N = 253)	50,1 (N = 1632)	−9,8	< 0,001

Table 6: Comparing relative economic standing (RES) means based on ownership and non-ownership of different asset classes using independent sample t-tests.

The above table was sorted in the same order as in Table 5, in order to facilitate comparisons between the two tables. Making such comparisons, it is evident all asset classes that are related with higher levels of subjective well-being (see Table 5), are also related with higher levels of relative economic standing (see Table 6). The opposite is true for the only asset class related with lower levels of SWB, *Other assets*, as it is also related with lower levels of RES. It should be noted all observed differences above are statistically significant (sig. < 0,001).

To better understand how relative economic standing mediates the relationship between asset class ownership and subjective well-being, two additional regressions were computed. The general setup for the two different ordinary least-squares regressions (OLS) is as follows:

$$Y_i = \beta_0 + \beta_1 R + \varepsilon_i$$

where $\mathbf{Y_i}$ denotes SWB; **R** denotes Relative economic standing; and ε_i is an error term.

$$Y_i = \beta_0 + \beta_1 M + \beta_2 V + \beta_3 S + \beta_4 Soc + \beta_5 F + \beta_6 B + \beta_7 Op + \beta_8 Rp + \beta_9 Ai + \beta_{10} Oa + \varepsilon_i$$

where $\mathbf{Y_i}$ denotes Relative economic standing; **M** denotes Money; **V** denotes Vehicles; **S** denotes Shares; **Soc** denotes Shares in own company; **F** denotes Funds; **B** denotes Bonds; **Op** denotes Own property; **Rp** denotes Rental property; **Ai** denotes Alternative investments (metals, cryptocurrencies etc.); **Oa** denotes Other assets; and ε_i is an error term.

The findings from the above regressions have been summarized in Figure 5 and Figure 6 below. In combining the findings from the below regressions, it is revealed how RES mediates the investigated relationship.

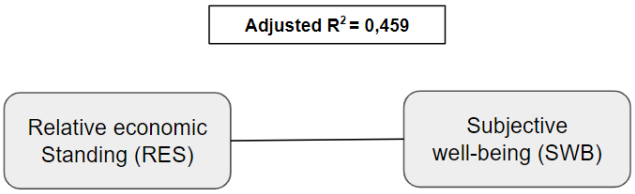

Figure 5: OLS regression with RES (*IV*) and SWB (*DV*).

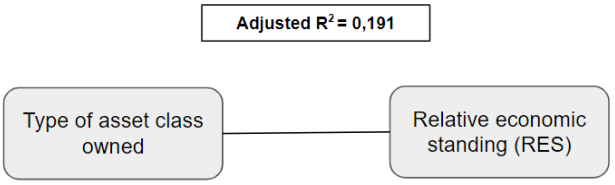

Figure 6: OLS regression with Asset class ownership (*multiple IV's*) and RES (*DV*).

To begin with, Figure 5 shows that the variation in subjective well-being is to a large degree explained by relative economic standing (adj. R^2 = 0,459). In turn, Figure 6 shows that the variation of relative economic standing is to some degree explained by asset class ownership (adj. R^2 = 0,191). Returning to the relationship between asset ownership and subjective well-being (see Figure 4), this means although an explicit relationship can be observed between asset class ownership and subjective well-being (adj. R^2 = 0,165), the relationship is partially explained by the relative economic standing variable. Thus, supporting evidence can be found for relative economic standing mediating the relationship between asset class ownership and subjective well-being.

4.2. Qualitative results

To provide a brief overview of the in-depth interviews that were held with four separate experts, a summary table will be presented. Although the experts were asked more questions than those found below (see Appendix 4), only answers to questions used in this study have been compiled. The questions asked are on the left side of the table, followed by each expert's full name and answer on the right side. Using thematic analysis, themes in the experts' answers have been marked with distinct coloring to emphasize repetition and overlap between multiple experts (Bell et al, 2019, p. 519). The identified themes have been labeled, and can be found below each interview question on the left side of the table.

4.2.1. Potential explanations from industry experts

Questions asked	Explanations from the experts
***Interview question 1**: Why do you believe we have found a significant relationship between wealth and subjective well-being in 2024, when a previous study failed to do so in 2013?* **Blue**: Economic environment. **Red**: Media-related.	**Henrik Johansson**: "Firstly, it depends on how well-being has been defined in each study. Secondly, I believe the strength of the correlation depends on the **economic environment**. In recessions, wealth is more important for well-being than in economic booms." **Nicklas Andersson**: "Many have found their way to the stock market and built large portfolios during the last ten years. Therefore, I think people have built capital that is more liquid than previously. I also think people feel more economic security from capital in **tough economic environments**, especially when the **media** constantly lays mentions of the economic crisis, higher interest rates and inflation." **Magdalena Kowalczyk**: "We have gotten a wider comparison scope via multiple different **digital channels and social media**. Thus, comparison to others has become so much more extensive than in 2013. " **Jacob Abrahamsson**: "Today we are more exposed to content intended to be seen as 'a happy state' through **social media**. The content today is more designed with the intent to be inspirational, in comparison to 2013 when the focus was more on information in social media. For instance, today it is common that people show their luxury homes and vacations which was not as common ten years ago."

***Interview question 2**: What are potential explanations for why a person's attitude toward loans moderates the correlation between Relative economic standing and Subjective well-being?* **Green**: Those positive toward loans may to a greater extent associate consumption with well-being than others. **Purple**: Some may see loans as a financial tool to buy assets.	**Henrik Johansson**: "Those positive toward loans in general may also have a positive attitude towards loans intended for consumption. **These people may associate well-being with consumption to a greater extent, since consumption is often tangible and easy to compare with others**." **Nicklas Andersson**: "Those positive toward loans may own more, and thus their relative economic standing is more correlated with Well-being than those negative toward loans, which can be assumed to own less. The more positive ones may also view loans as a **financial tool**, whereby they may already perform relatively high financially and have a financial foundation to lean back on, increasing the correlation. If you are positive toward loans, my assumption is that you may **use it as a tool to buy assets that increase in second hand value over time**." **Magdalena Kowalczyk**: "We know for a fact that different people have different amounts of respect and knowledge about loans and what it really means to take a loan. Thus, **some may be more prone to take loans to 'treat themselves' with buying things**, like a jacket etc**.**" **Jacob Abrahamsson**: "Some look at loans as something that only comes with more costs, while another group of people **see it as a potential financial tool to buy for example 'real assets'**, that hopefully increase in value over time."

5. Discussion

In the thematic discussion that follows, the hypotheses and research questions will be addressed sequentially, whilst reconnecting them to the purpose and theoretical framework of the paper to set the findings in a context. Due to the open-ended nature of both research questions in this study, these have been subdivided in the theoretical implications section based on the findings that have been made. This is to distinguish between the different findings, clarifying how and to what extent empirical findings are attributable to the specific subpart of the research question asked. Thereafter, the conclusions will be stated, followed by the present paper's limitations and proposed directions for future research.

5.1. Theoretical implications

5.1.1. The importance of relative economic standing

In regard to whether *relative economic standing is a more powerful predictor of subjective well-being than absolute measures of economic standing, like income and wealth*, the present paper finds supporting evidence for this hypothesis. Relative economic standing is not only significantly (sig. < 0,001) positively correlated with subjective well-being (r = 0,678), but it also explains a large degree of its variance (β = 0,647). In comparison, although statistically significant (sig. < 0,001), the positive correlations between subjective well-being and the absolute measures of economic standing like income (r = 0,339) and wealth (r = 0,288) were both lower than that of relative economic standing previously mentioned. This was later confirmed in the OLS regression, where wealth had lower predictive power for subjective well-being (β = 0,079), while income was not found to be a significant predictor of subjective well-being (sig. = 0,220).

This implies how you perform financially in **absolute** terms is not as important for your subjective well-being as how you perceive to perform financially **relative** to others, with others being defined as the respondent's own reference group and the national average. This provides an answer to the long-standing debate between absolute and relative economic standing as described by Diener et al (1993). These findings also align with the reasoning by Miller et al (2015) in that social information is more influential, in this case relative economic standing, even in the presence of objective information, in this case absolute income and wealth. The findings are related to social comparison theory, and stem from our tendency to socially compare ourselves with others in order to gain more accurate self-evaluations.

In addition, findings suggest economic standing relative to peers does not need to be limited to income, as has been previously (Brady et al, 2023; Chin et al, 2020; Ferrer-i-Carbonell, 2005; Goerke & Pannenberg, 2015; McBride, 2001; Oshio et al, 2011; Yu, 2020). By incorporating dimensions beyond just income, as proposed by Hochman & Skopek (2013) and similar to the study by Brown & Gray (2016), the understanding of relativity's importance in the context of personal finance and our own subjective well-being is deepened.

5.1.2. Wealth as a significant predictor of subjective well-being

Investigating whether *wealth has become a significant predictor of subjective well-being*, supporting evidence of the hypothesis is found. As indicated by the initial correlations with subjective well-being (r = 0,288), the significant (sig. < 0,001) predictive power of subjective well-being was later confirmed in the regression discussed above (β = 0,079). To elaborate, this means that an individual with higher wealth is more likely than not to also have higher subjective well-being. However, it should be remembered that causality has not been tested.

Although a previous study did not find wealth to be a significant predictor of subjective well-being when it was previously tested in Sweden, the present study has made the opposite finding. Possible explanations for this have been provided in the theoretical framework, such as wealth's ability to confer economic security, especially during times of economic turbulence. When we interviewed industry experts about this, some shared similar explanations for why we see this phenomenon today, and not in 2013. Below are examples of what two of them; Nicklas Andersson, savings economist and podcast host, and Henrik Johansson, CEO of 'Unga Aktiesparare'; had to say with regard to the discovery:

"Many have found their way to the stock market and built large portfolios during the last ten years. Therefore, I think people have built capital that is more liquid than previously. I also think people feel more economic security from capital in ***tough economic environments****, especially when the media constantly lays mentions of the economic crisis, higher interest rates and inflation." (Andersson, 2024).*

"*Firstly, it depends on how well-being has been defined in each study. Secondly, I believe the strength of the correlation depends on the* ***economic environment****. In recessions, wealth is more important for well-being than in economic booms."(Johansson, 2024).*

The reflections shared by Johansson (2024) also point toward a separate but important potential explanation, being how subjective well-being has been defined in both studies. While this study has defined SWB using three variables (*general life satisfaction, well-being* and *happiness*), the study by Hochman & Skopek (2013) defined it using only one variable (*general life satisfaction*). This has also previously been mentioned, and is therefore brought up as a potential drawback in the limitations section toward the end of this paper.

5.1.3. Income does not moderate the RES and SWB relationship

With regard to whether *income moderates the relationship between relative economic standing and subjective well-being*, this paper has found evidence this is not the case. Although differences in the correlation strength were found, these differences were not statistically significant (sig. = 0,148) indicating income does not moderate the relationship between the two variables.

This means SWB is not only negatively influenced by low relative economic standing for individuals with lower absolute income, but the converse is also true for individuals with higher absolute income. In other words, relative economic standing is related to well-being, regardless of income level, meaning it matters for all individuals across the income spectrum. This aligns with the findings made by Yu (2020), indicating relative income is important both when your income in absolute terms is worse and better than the average. However, at the same time it contradicts findings made by Ferrer-i-Carbonell (2005), Goerke & Pannenberg (2015), and McBride (2001), which indicates that the implications from their studies are not transferable to the study's relative economic standing construct.

5.1.4. Loan attitude as a moderator for the RES and SWB relationship

In exploring *other potential moderators to the relationship between relative economic standing and subjective well-being*, supporting evidence is found related to individuals' attitude towards taking loans. More notably, a positive loan attitude among the study's respondents significantly (sig. < 0,001) increased the strength of the correlation between SWB and RES (r = 0,746), when compared to respondents that have a negative loan attitude (r = 0,634). To elaborate, this means relative economic standing is more related with how individuals define their own subjective well-being if they have a positive attitude toward loans, and vice versa.

With regard to the study's theoretical framework, the observed moderation was not expected. However, adopting a mixed-methods approach made it possible for the qualitative expert interviews to provide plausible explanations for the observed moderation that loan attitude exerts. One such explanation was that some people that are positive toward loans may to a greater extent than others associate consumption with well-being. This is how one of them;

Magdalena Kowalczyk, private economist and tv host for 'Lyxfällan'; explained it when asked about possible explanations for the above mentioned moderation:

"We know for a fact that different people have different amounts of respect and knowledge about loans and what it really means to take a loan. Thus, ***some may be more prone to take loans to 'treat themselves' with buying things****, like a jacket etc" (Kowalczyk, 2024).*

Related to the above, Johansson (2024) explains in a different expert interview that consumption is often tangible and more easily comparable to others for some people (Johansson, 2024). If a positive loan attitude is also related with consumption related loans, it could explain why we observe the above moderation between relative economic standing and subjective well-being. In addition to consumption related loans, another view on loans are those taken with the intent of buying things that appreciate in value. This is how one of them; Jacob Abrahamsson, real estate investor & co-founder of 'Bollnäs Cowork'; described it:

"Some look at loans as something that only comes with more costs, while another group of people ***see it as a potential financial tool to buy for example 'real assets'****, that hopefully increase in value over time" (Abrahamsson, 2024).*

Although some explanations are provided for the moderation, given the uncertainty that revolves around its underlying nature further research is required to understand the motivations behind the moderator.

5.1.5. Asset ownership's relation with higher subjective well-being

As for *asset class ownership and its relation to subjective well-being*, this paper finds supporting evidence that asset class ownership and subjective well-being are generally positively related. The relation in itself was confirmed through a regression between ownership of different asset classes and subjective well-being (adj. $R^2 = 0{,}165$), whereas the inference of positive association was established through multiple mean comparisons using independent sample t-tests. More precisely, findings indicate asset class ownership is significantly associated with higher mean levels of subjective well-being in 8/10 instances (sig. < 0,001) or 9/10 instances (sig. < 0,05) depending on the significance level used.

This supports previous findings made by Brown & Gray (2016), Huang et al (2016), and Rao et al (2016) indicating asset ownership is positively associated with subjective well-being. Simultaneously, they oppose findings made by Qiao & Cai (2021) stating ownership of financial assets invested in the stock market is associated with lower levels of happiness. Specifically, the study finds statistically significant (sig. < 0,001) higher levels of subjective well-being for ownership of *bonds* ($\bar{x}$ = 69,7), *funds* ($\bar{x}$ = 61,4) and *shares* ($\bar{x}$ = 62,3) in comparison to non-ownership of *bonds* ($\bar{x}$ = 55,3), *funds* ($\bar{x}$ = 51,6) and *shares* ($\bar{x}$ = 53,2). In practice, this means that if a person owns assets, it is generally more likely than not that this person will also score higher when it comes to subjective well-being.

5.1.6. A relationship mediated by relative economic standing

In investigating *mediators for the relationship between asset ownership and subjective well-being*, the paper finds supporting evidence for relative economic standing mediating the above relationship. The mediation becomes apparent when means of relative economic standing for ownership and non-ownership of different asset classes are compared using independent sample t-tests. The tests show that all asset classes related with higher levels of SWB were also significantly (sig. < 0,001) related with higher levels of RES. Comparatively, the only asset class related with lower levels of SWB was also significantly (sig. < 0,001) related with lower levels of RES. The partial mediation can be explained through separate OLS regressions that were run between asset ownership and RES (adj. R^2 = 0,191) and between RES and SWB (adj. R^2 = 0,459), where the independent variable was the former and the dependent variable was the latter variable in both previous sequences.

Similar to the previous discussion about findings made by Qiao & Cai (2021), the present study opposes the idea that uncertainty mediates the relationship between asset ownership and subjective well-being. Instead, this study finds supporting evidence that asset ownership is related with higher levels of SWB, only when it is also significantly related with higher levels of relative economic standing. In practice, this means that asset ownership generally is associated with higher subjective well-being, only if it is accommodated by higher relative economic standing. If such asset ownership instead would make you perform financially worse relative to others, we would expect to see lower levels of subjective well-being. This underscores the importance of relative economic standing, also from the perspective of asset ownership, and contributes to the growing area of asset-related SWB literature.

5.2. Practical implications

Firstly, by making the finding that wealth is a significant predictor of subjective well-being, the present paper shows why initiatives aimed at improving wealth should be considered to a larger degree by policymakers. Initiatives that aim to lower the tax on investment savings accounts is one such example, which are currently being investigated by Swedish regulators.

In addition, although initiatives which seek to incentivize wealth accumulation would most likely increase absolute economic standing, these implications are limited for relative economic standing. For instance, if such initiatives are *equally effective* for all individuals, there would be no considerable impact on relative economic standing. Rather, the practical implications relate to reference group comparisons. To exemplify, those that strive for self improvement and as a consequence tend to compare themselves to superior others are more likely to experience a lower subjective well-being. Conversely, those that strive for self enhancement and compare themselves to inferior others are more likely to experience a higher subjective well-being. This reveals the importance of the reference group individuals choose, either consciously or subconsciously, to compare themselves with financially.

5.3. Conclusions

Returning to the questions raised at the beginning of this paper, the study has found evidence that money, both in terms of absolute wealth and relative economic standing, are significant predictors of subjective well-being in Sweden. In addition, by comparing these it was found that how we perform financially relative to others is more important for our well-being than how we perform financially in absolute terms. Continuing, it was also found that the relationship between relative economic standing and subjective well-being is moderated by loan attitude, with the strength of the relationship increasing for individuals with a positive attitude toward loans, and vice versa. Lastly, we have also found evidence of asset ownership being significantly positively related with subjective well-being in general. However, the empirical findings indicate the relationship is mediated by relative economic standing, meaning the positive association is only true if the asset ownership is also related with higher levels of relative economic standing.

5.4. Limitations

Although it has already been mentioned previously, it cannot be stressed enough that the use of terminology such as predictive power and relationships is strictly based on linear relationships, as observed using cross sectional data. This study does not confer any causality, as such implications would require longitudinal data. Additionally, non-linear relationships have not been investigated, providing an additional limitation to consider.

With regard to reliability, it should be noted that although the study's findings should be representative of the Swedish population, the extent to which findings are applicable to other geographical areas and contexts is uncertain. In addition, respondents that lack a fundamental understanding of their financial situation, leading them to submit erroneous answers, could have negatively affected the reliability of the quantitative data this study is heavily based on.

Some limitations also relate to the measurements used. For instance, in contrast to previous research the present study is based on a more comprehensive measure of subjective well-being, taking domains such as general life satisfaction, well-being and happiness into consideration. Although a reliability analysis was conducted to ensure internal reliability, the definition differs from previous research as previously mentioned. As such, this could negatively affect replicability and applicableness across studies.

Further, while the computation of the relative economic standing variable has contributed greatly toward the making of this paper, especially in comparing absolute measures of economic standing with relative economic standing more holistically, it also has its downsides. A limitation with the measure relates to its open-ended nature. When respondents are asked to estimate their financial situation in relation to others, they choose both which reference group to compare themselves against and with which parameters such comparisons are made. Thus, it can be difficult to grasp what parameters the measure incorporates and not, while also being based on the assumption that respondents have reasonable knowledge of their financial situation in relation to both a reference group and the national average.

A last limitation worth taking into consideration are the data adjustments the quantitative data has been subject to. Although extreme outliers had to be removed from the wealth variable given the negative influence such data points would have had on the intended statistical tests,

it introduces the data to other risks. For instance, although the outliers have been removed with the best intent, it could become subject to personal biases from the authors making the adjustments, especially as such adjustments are made subjectively.

5.5. Future research

To begin with, for future studies that wish to build on the current one it is suggested to investigate why loan attitude moderates the relationship between relative economic standing and subjective well-being. The assumption can be made that a positive loan attitude is also associated with a higher degree of loans. It could therefore be worth separating between different types of loans, such as those mentioned by our experts, and explore if their moderating effects are different. For instance, do loans intended for consumption have a stronger moderating effect than loans intended for investments?

In addition, as the economy stabilizes and the importance of economic security decreases, it would be of interest for a future study to once more reassess the absolute measures of relative economic standing. More precisely, future research should investigate whether wealth is still a significant predictor of subjective well-being in the near future when there is an absence of economic turbulence. Such findings would determine whether its effects fluctuate over time, or whether they have grown persistent.

Continuing, future research should to a larger degree consider incorporating other aspects into the subjective well-being construct from a validity perspective, not over relying on single-item measures. The present paper indicates that not only general life satisfaction questions can be used to assess subjective well-being, but also questions explicitly related to well-being and happiness, all while still having more than acceptable internal reliability.

Lastly, as the present paper has not examined causality, we propose for future research to undertake a longitudinal study in order to better understand whether increases in wealth, income, or relative economic standing have the highest impact on subjective well-being. When our expert panel was asked whether they believe causality exists between well-being and economic factors, like those examined in this paper, most believed this is the case. However, reflections voiced that good personal finances are not a guarantee to feel better, but rather have the possibility of doing so only if you find personal finances exciting, and if you

view it as an enabler. Examining the former as moderators would make for a compelling study, all while helping us better understand how changes in economic factors impact and affect our subjective well-being.

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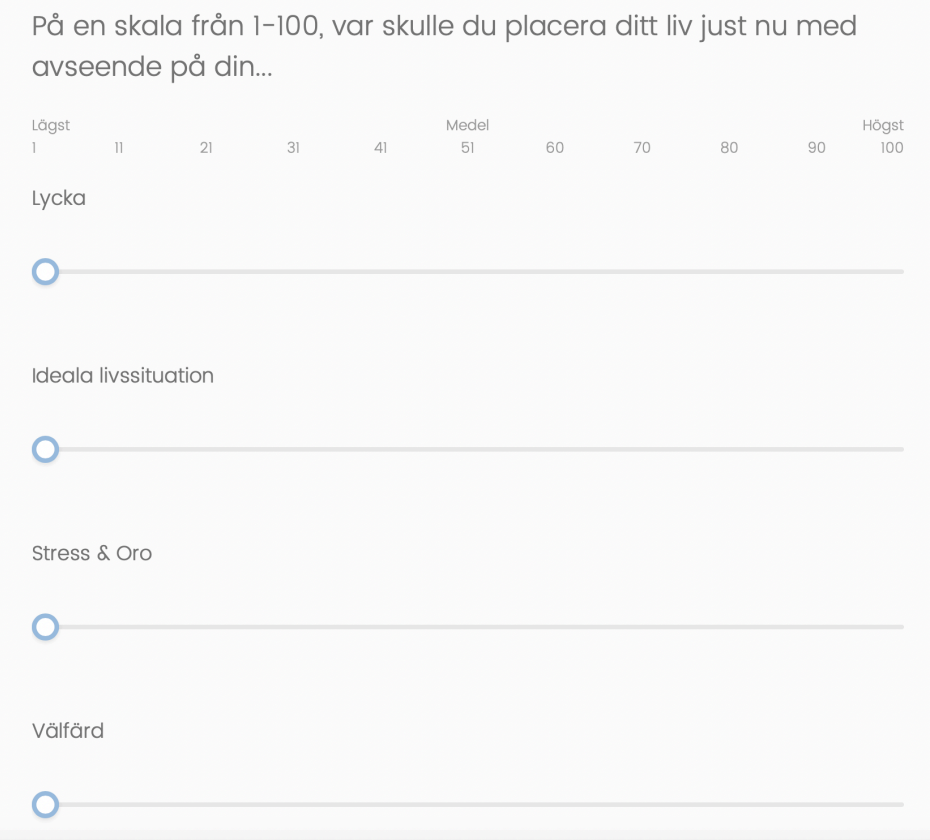
7. Appendix

Appendix 1: Survey content

Survey content
Introduction letter:
Varmt välkommen! **Syfte** Vi har skapat den här enkäten i samband med vårt uppsatsskrivande som handlar om Ekonomi och Välmående. **Integritet** Alla svar är anonyma och det går således inte att ta reda på vem som svarat vad i enkäten.
Survey questions:
1. Well-being and ill-being 

2. Relative economic standing

På en skala från 1-100, har du det bättre eller sämre ekonomiskt ställt jämfört med...

1 = Sämst | 50 = Median | 100 = Bäst

1 11 21 31 41 51 60 70 80 90 100

Din omgivning (vänner, familj m.fl.)

Sveriges befolkning

3. Loan attitude

På en skala från 1-100, vad är din generella attityd till att ta lån?

Väldigt negativ | Neutral | Väldigt positiv

1 11 21 31 41 51 60 70 80 90 100

4. Asset class ownership

Om några; vilka av nedanstående tillgångar äger du i dagsläget?

- [ ] Pengar
- [ ] Fordon (bil, båt, etc.)
- [ ] Aktier
- [ ] Aktier i eget företag
- [ ] Fonder
- [ ] Räntepapper
- [ ] Egen bostad
- [ ] Fastighet avsedd för uthyrning
- [ ] Alternativa investeringar (ädelmetaller, kryptovalutor etc.)
- [ ] Övrigt

5. Loan attitude toward different asset classes

Jag har använt/kan tänka mig att använda mig av lån för att finansiera köp av följande tillgångar:

- ☐ Fordon (bil, båt, etc.)
- ☐ Aktier
- ☐ Fonder
- ☐ Räntepapper
- ☐ Egen bostad
- ☐ Fastighet avsedd för uthyrning
- ☐ Alternativa investeringar (ädelmetaller, kryptovalutor etc.)
- ☐ Övrigt
- ☐ Jag har inte / kan inte tänka mig ta lån

6. Total assets

Uppskattningsvis, hur mycket pengar har du sammanlagt i besparingar (bankkonto, värdepapper mm)? Vänligen ange ditt svar med siffror (kronor) utan mellanslag.

Uppskattningsvis, vad är det totala värdet av dina övriga tillgångar (fastigheter, fordon mm)? Vänligen ange ditt svar med siffror (kronor) utan mellanslag.

7. Total debt

Uppskattningsvis, vad är det totala värdet av alla dina lån? Vänligen ange ditt svar med siffror (kronor) utan mellanslag.

8. Happiness maximizing wealth

Uppskattningsvis, hur mycket pengar hade du behövt för att vara som allra lyckligast? Vänligen ange ditt svar med siffror (kronor) utan mellanslag.

9. Buffer

Hur mycket pengar har du i dagsläget avsatt för oförutsedda händelser? Vänligen ange ditt svar med siffror (kronor) utan mellanslag.

10. Education level

Vilken är din högsta påbörjade utbildningsnivå?

- ○ Högstadieutbildning
- ○ Gymnasieutbildning
- ○ Utbildning från högskola/universitet
- ○ Forskarutbildning från högskola/universitet

11. Occupation

Vad är din huvudsakliga sysselsättning?

- ☐ Studerande
- ☐ Deltidsanställd
- ☐ Heltidsanställd
- ☐ Egen företagare
- ☐ Pensionär
- ☐ Arbetslös
- ☐ Ekonomiskt oberoende

12. Size of hometown

Bor du i...

- ◯ Storstad
- ◯ Mindre stad
- ◯ Glesbyggd
- ◯ Vet inte

13. Accommodation

Vilken boendeform har du?

- ◯ Villa
- ◯ Radhus
- ◯ Lägenhet
- ◯ Annat

14. Annual salary

Ungefär hur stor är din sammanlagda årsinkomst före skatt?

- ◯ Under 100 000 kronor
- ◯ 100 001 - 200 000 kronor
- ◯ 200 001 - 300 000 kronor
- ◯ 300 001 - 400 000 kronor
- ◯ 400 001 - 500 000 kronor
- ◯ 500 001 - 600 000 kronor
- ◯ 600 001 - 700 000 kronor
- ◯ 700 001 - 800 000 kronor
- ◯ 800 001 - 900 000 kronor
- ◯ 900 001 - 1 000 000 kronor
- ◯ 1 000 001 - 1 100 000 kronor

- ◯ 1 100 001 – 1 200 000 kronor
- ◯ 1 200 001 – 1 300 000 kronor
- ◯ 1 300 001 – 1 400 000 kronor
- ◯ Över 1 400 000 kronor
- ◯ Vill ej ange

15. Control question

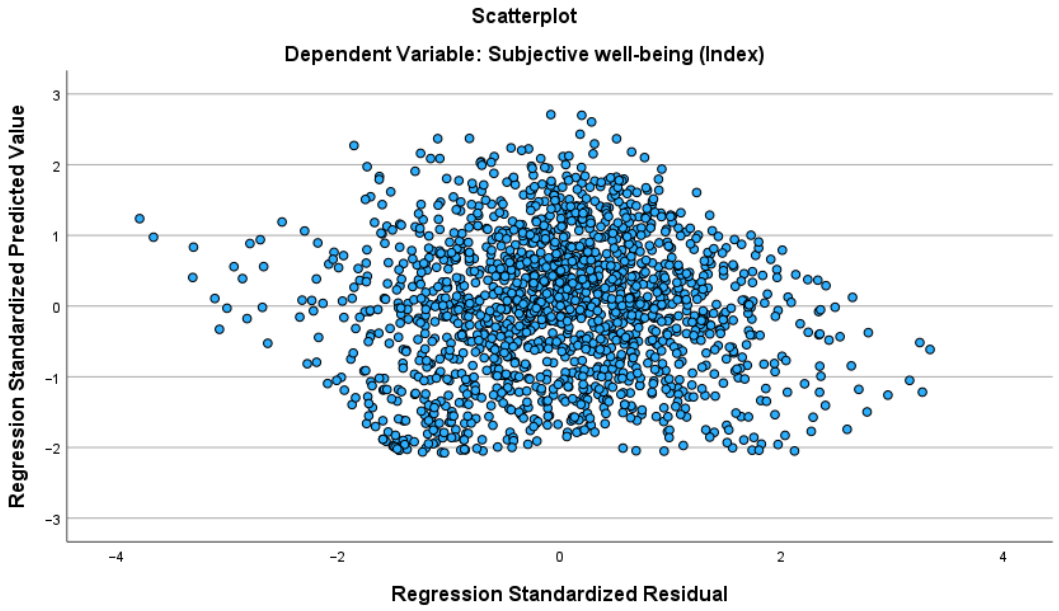
Vad handlade den här enkäten om?

- ◯ Kemiska benämningar
- ◯ Datorspel
- ◯ Ekonomi & Välmående

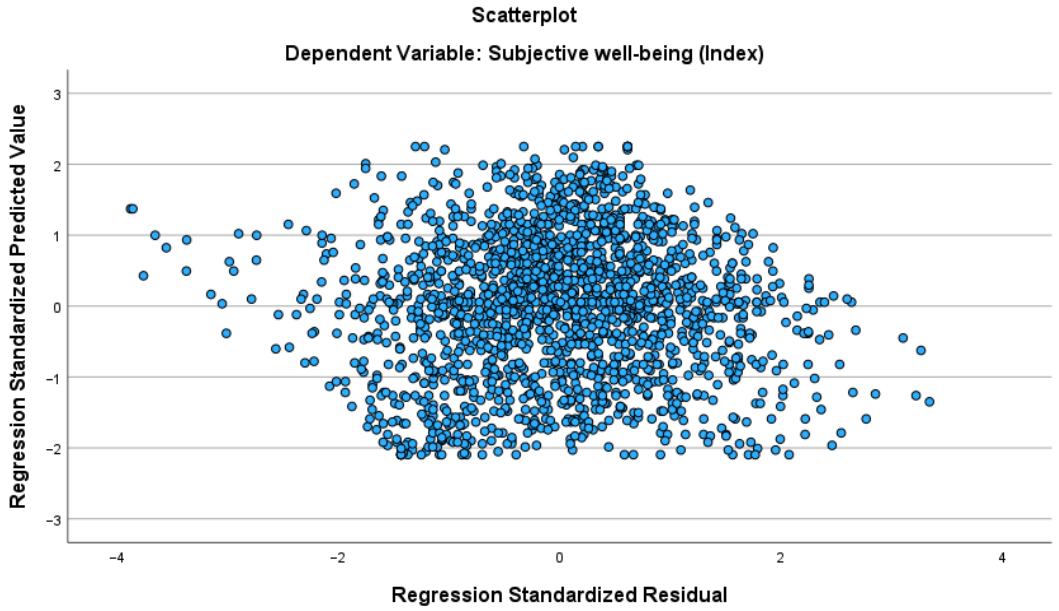
Appendix 2: Regression residuals visualized using scatter plots

Residuals for regression analyses visualized on scatter plots where:

- **Dependent variable**: SWB (Index)
- **Independent variables**: RES (Index), Wealth, Income

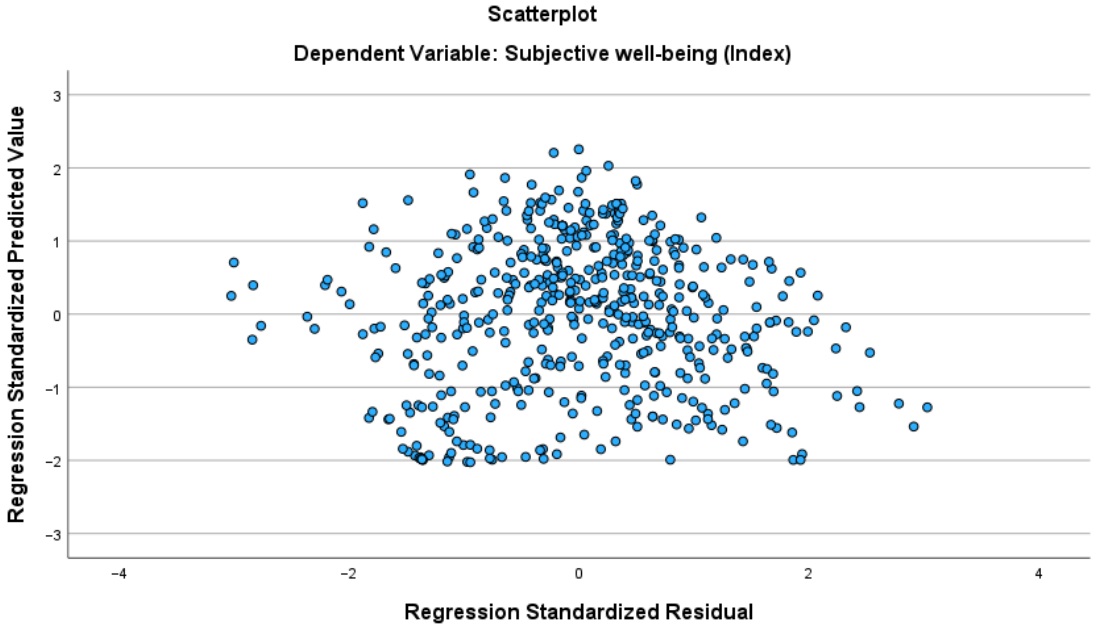


- **Dependent variable**: SWB (Index)
- **Independent variables**: RES (Index)

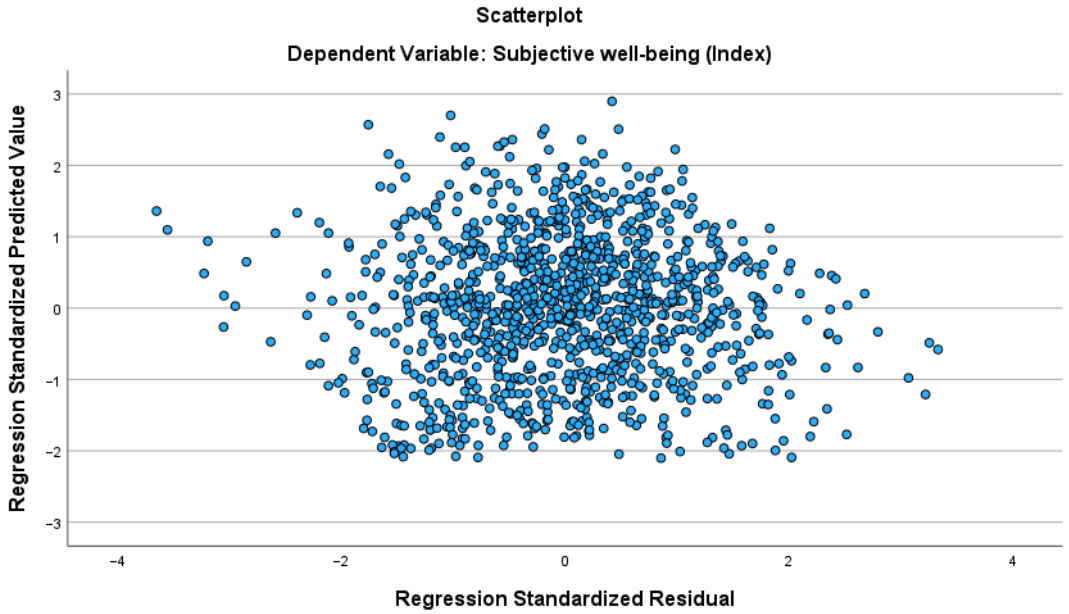


- **Dependent variable**: SWB (Index)
- **Independent variables**: RES (Index), Wealth, Income

- **Moderator**: Positive attitude toward loans

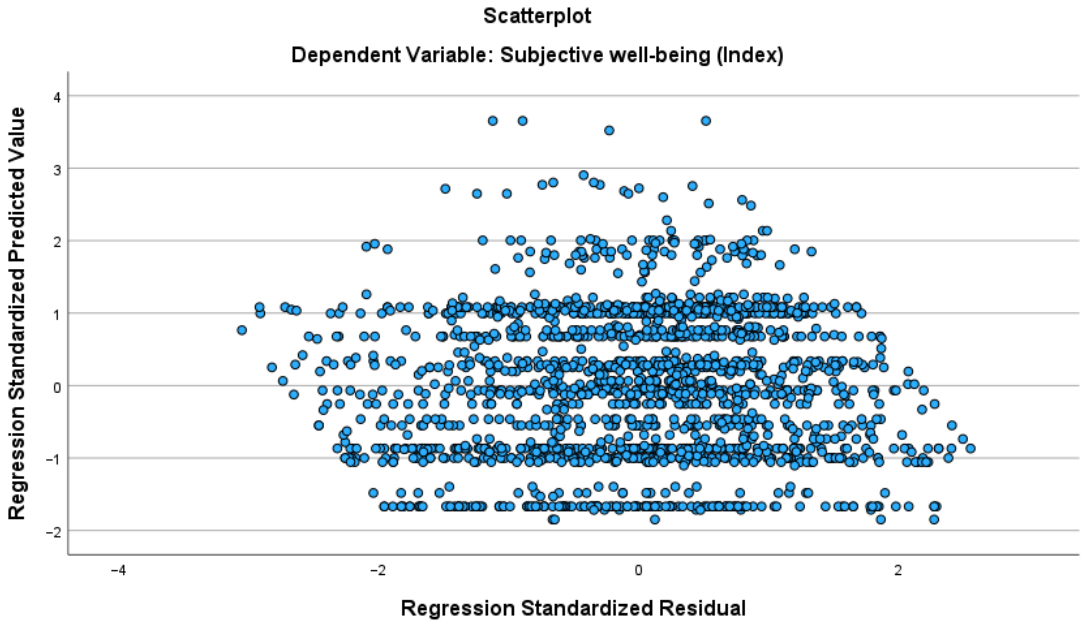


- **Dependent variable**: SWB (Index)
- **Independent variables**: RES (Index), Wealth, Income
    - **Moderator**: Negative attitude toward loans

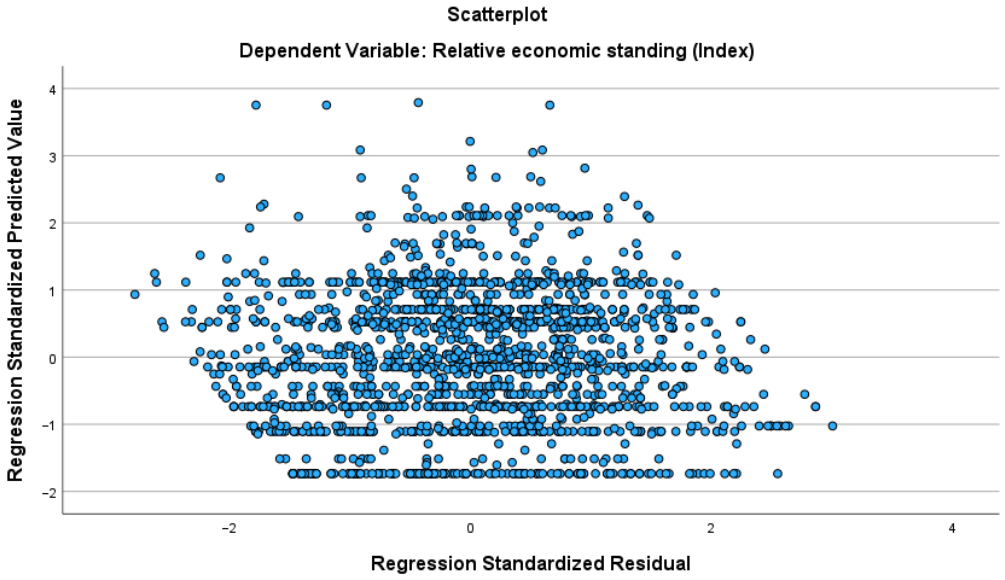


- **Dependent variable**: SWB (Index)

- **Independent variables**: Money, Vehicles, Shares, Shares in own company, Funds, Bonds, Own property, Rental property, Alternative investments (metals, cryptocurrencies etc.), Others assets

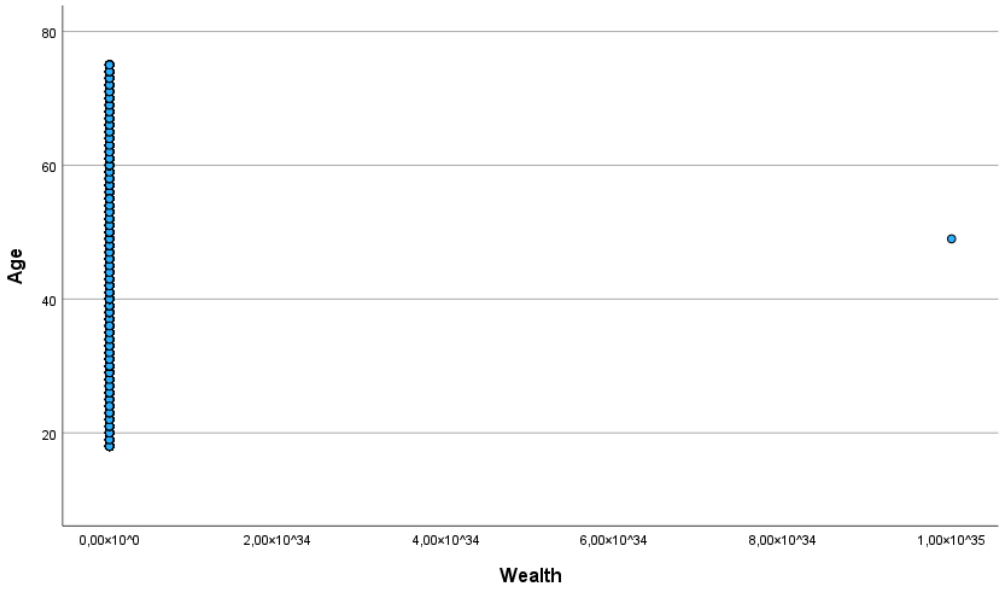


- **Dependent variable**: RES (Index)
- **Independent variables**: Money, Vehicles, Shares, Shares in own company, Funds, Bonds, Own property, Rental property, Alternative investments (metals, cryptocurrencies etc.), Others assets

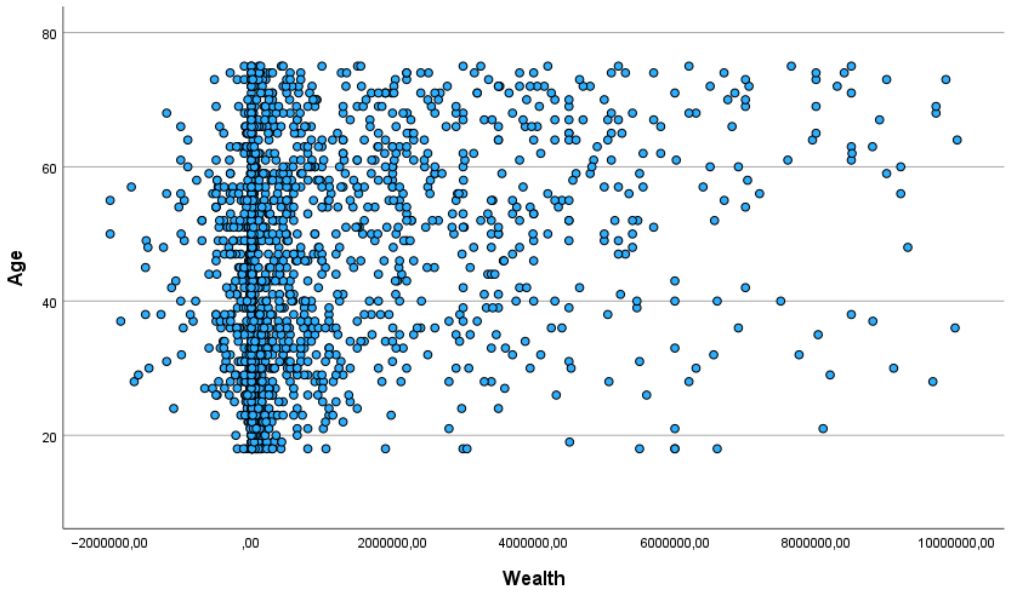


Appendix 3: Extreme outliers visualized using scatter plots

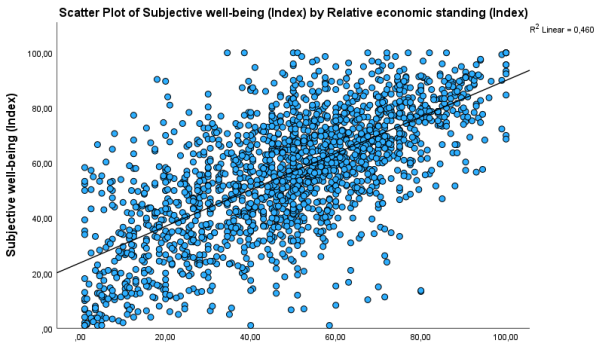
When outliers had not been removed from the quantitative results, the below scatter plot graphically displays the distribution, with Age on the Y-axis and Wealth on the X-axis.



When outliers had been removed, so that only wealth figures in the - 2 MSEK to 10 MSEK range were included, the same scatter plot was run again to ensure reliability of the data.



Appendix 4: Interview guide

Interview guide
Opening questions:
1.1: Can you please tell us a little bit about yourself?
1.2: What is your biggest passion in your life at the moment?
Well-being questions:
2.1: How would you describe well-being?
2.2: What would you say are the most important factors for a person to feel that they have well-being?
Well-being questions related to personal finance:
3.1: As we understand it, you think that the connection between personal finance and well-being is interesting. How come?
3.2: Would you say that there is a connection between a person's personal finances and their well-being? If yes, please tell us about this connection.
Questions related to quantitative findings:
4.1: Now it's time to have a look at one of the findings we have gotten from our survey. As you can see on this graph, the Y-axis represents 'Subjective well-being', while the variable on the X-axis has been removed. What we would like from you now is to guess which economic variable it is, and why you believe this. Please take a minute to analyze the graph before you answer.    What economic variable do you think it could be? Please elaborate. ***Reveal the variable: '*Relative economic standing*'*** **4.1.1:** What is your reaction when you hear this? **4.1.2:** Why do you think we see such a strong correlation between the two variables?

4.2: For a moment, let's pretend that you are one of the respondents answering our survey and you are faced with these two questions:

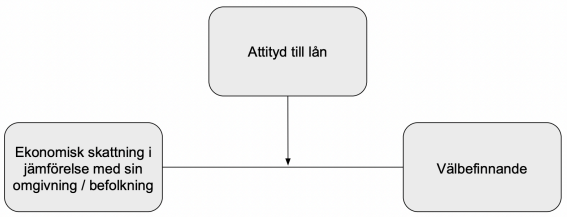
- "How would you rate your economic situation in relation to your social surroundings (Friends, Family, etc)?"
- "How would you rate your economic situation in relation to the Swedish population?"

How would you have answered them?

4.2.1: Now it's time for you to reflect back on your thought process when answering these two questions. What economic variables did you include when you rated your economic situation in comparison to others?

4.2.2: Do you think others with a different background than you would think differently and take other economic variables into account when answering the same questions?

4.3: Now we will continue a little bit with 'Relative economic standing' and 'Subjective well-being'. We have found that a person's attitude towards loans influences the strength of the correlation between the two variables.
(Positive to loans → Stronger correlation.)
(Negative to loans → Weaker correlation.)



What do you think could be the explanation for why this is the case?

4.4: Do you believe that ownership of specific asset classes can be associated with lower levels of:

- Well-being and happiness?
- Relative economic standing?

4.5: Do you believe that owning any of these asset classes can make a person happier?

- Money
- Vehicles
- Shares
- Shares in own company
- Funds
- Bonds
- Own property
- Rental property
- Alternative investments (metals, cryptocurrencies, etc)
- Other assets

4.6: A study from 2013 made in Sweden did not find any statistically significant

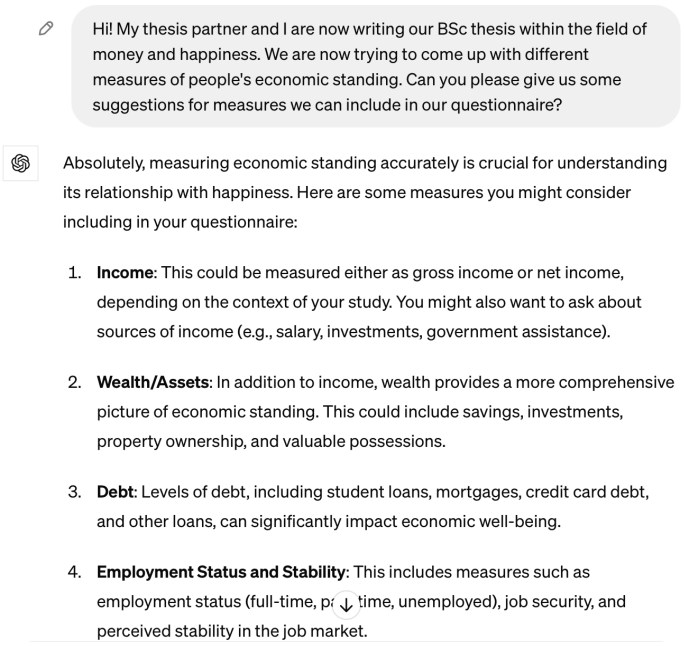
correlation between a person's wealth (i.e. assets - debt) and the same person's well-being. Today in 2024, a little more than ten years later, we have actually found a correlation that is statistically significant between wealth and well-being. What do you think the reasons could be for why we see this correlation today in 2024, but not in 2013? Has something changed that could have an impact on this, according to you?
A few quick questions:
5.1: What are your three best personal finance tips for well-being?
5.2: What personal finance factors do you believe have a great influence on a person's well-being, but which most people often miss, underestimate or take for granted?
5.3: Is there anything you would want to change in your own personal finances in order to be a little bit happier?
5.4: What are your best tips on how to build wealth in a way that keeps well-being high?
Ending questions:
6.1: We have found a number of correlations between personal finances and well-being in our data. But that does not necessarily entail a so-called causality, meaning for example that “Great personal finances make you happier”. But if we ask you the question: Do you personally believe that good personal finances makes us happier?
6.2: Is there anything you were expecting to get asked about in this interview, or otherwise would have wanted to bring up, but that wasn’t because we have missed to ask you?
6.3: Is there anything else you would like to add?

8. Disclosure related to Generative AI-tools used

When the audio recordings from the expert interviews were subject to transcription, we used the AI-tool **Klang.ai**, which generated transcriptions based on the same audio recordings. Klang.ai contributed to increased quality of the thesis, in the way that it decreased the time needed to spend on transcribing the interviews. However, the process was not as smooth as one could have thought. For instance, during the transcription process it became aware that the AI-tool at times did not correctly interpret the audio recordings, which led to several minor flaws in the transcription. To reduce these risks and ensure the transcription was correct, it was checked against the original audio recordings and adapted where needed. The insights that can be gained from using AI-tools in transcription purposes is that the technology can facilitate the thesis writing process, but given that it is not fool proof yet the transcription still requires manual review. As such, researchers at least need to budget for a proof-read with all audio recordings, where the required workload varies depending on the length and amount of recorded interviews.

Link to Klang.ai: https://klang.ai/

In addition to this, AI-tools were partly used to assist with idea generation. For this purpose we used ChatGPT, a generative AI-tool by OpenAI. The screenshot below illustrates how it contributed to our idea generating process for measures worth including in the survey:



Other ways that ChatGPT was used include data analysis, where we provided the AI-tool with a list of the measures we had asked questions about in the survey in order to receive suggestions on how the related data could be analyzed to drive compelling insights.

The tool contributed in the way that it accelerated the idea generating process by coming up with suggestions on both measurements to use and how these would later be analyzed. However, given that all of the suggestions are just the tool's "*best guess*", previous research had to be assessed to see e.g. how measures had previously been captured, and how similar data has previously been analyzed, before relying on any of the provided suggestions, The general insight gained is that when utilizing generative AI-tools, a critical mindset should always be applied. For instance, although it can help in providing good ideas, the tool does not base its suggestions on scientific articles, especially with regard to contributions and if such findings have already been made previously.

Link to ChatGPT: https://chatgpt.com